

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

City of Elk Grove Housing Element and Safety Element Update

State Clearinghouse No. 2020069032

Prepared for:



February 12, 2021

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Prepared for:



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LIST OF ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
AB	Assembly Bill
ADA	Americans with Disabilities Act
ADT	average daily traffic
ADWF	average dry weather flow
af	acre-feet
AFV	alternative fuel vehicles
AFY	acre-feet per year
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act of 1972
ALS	advanced life support
B.P.	before present
BACT	best available control technology
BFE	base flood elevations
bgs	below the ground surface
BMP	best management plans
CA SDWA	California Safe Drinking Water Act
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAFE	corporate average fuel economy
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CCSD	Cosumnes Community Services District
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CI	carbon intensity

City	City of Elk Grove
CMP	Congestion Management Process
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
COA	Conditions of Approval
CPTED	Crime Prevention Through Environmental Design
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSA	central service area
CSO	Combined Sewer Overflow
CSSIP	Combined Sewer System Improvement Plan
CUPA	Certified Unified Program Agency
CVFPB	Central Valley Flood Protection Board
CVP	Central Valley Project
CWA	Clean Water Act
CWTP	Combined Wastewater Treatment Plant
dB	decibels
diesel PM	exhaust from diesel engines
DOF	California Department of Finance
DOT	U.S. Department of Transportation
Draft SEIR	draft subsequent environmental impact report
DSH	diameter at standard height
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
ECA	Essential Connectivity Areas
EEGSP	East Elk Grove Specific Plan
EFSP	East Franklin Specific Plan
EGMC	Elk Grove Municipal Code
EGPD	Elk Grove Police Department
EGU	electric generating units
EGUSD	Elk Grove Unified School District
EGWD	Elk Grove Water District
EMD	Environmental Management Department
EMFAC	Emission Factor
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 1992
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986

ESA	Endangered Species Act
EV	electric vehicles
FEMA	Federal Emergency Management Agency
Fire Code	Uniform Fire Code
FIRM	Flood Insurance Rate Maps
FMP	Facilities Master Plan
FTA	Federal Transit Administration
GBV	Ground-Borne Vibration
General Plan EIR	<i>City of Elk Grove General Plan Update Draft Environmental Impact Report</i>
GHG	greenhouse gas
gpcd	gallons per capita per day
GWP	global warming potential
HAP	hazardous air pollutants
HCD	Housing and Community Development
HCP	habitat conservation plan
HRI	heat rate improvement
I-5	Interstate 5
IEPR	Integrated Energy Policy Reports
in/sec	inches per second
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
IRWMP	Integrated Regional Water Management Plan
LCFS	Low Carbon Fuel Standard
L _{dn}	day-night average sound level
LHMP	Local Hazard Mitigation Plan
LID	low-impact development
LOS	level of service
LRSP	Laguna Ridge Specific Plan
LTCP	long-term control plan
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant levels
mgd	million gallons per day
MLD	most likely descendant
MMRP	Mitigation Monitoring and Reporting Program
MOU	Memorandum of Understanding
MPO	metropolitan planning organizations
MS4	municipal separate storm sewer systems

MTCO _{2e}	metric tons of carbon dioxide equivalent
MTIP	Metropolitan Transportation Improvement Program
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NEHRP	National Earthquake Hazards Reduction Program
NFIP	National Flood Insurance Program
NO	nitric oxide
NO ₂	nitrogen dioxide
NOP	Notice of Preparation
NPDES	National Pollution Discharge Elimination System
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
OHWD	Omochumne-Hartnell Water District
OPR	California Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
ozone	photochemical smog
PCB	polychlorinated biphenyls
PG&E	Pacific Gas and Electric Company
PM	particulate matter
PM _{2.5}	fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less
PM ₁₀	respirable particulate matter with an aerodynamic diameter of 10 micrometers or less
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
POU	Place of Use
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
Project	City of Elk Grove Housing Element and Safety Element Update
PV	photovoltaic
Regional San	Sacramento Regional County Sanitation District
RHNA	Regional Housing Needs Allocation
RHNP	Regional Housing Needs Plan
RMS	root mean square
RPS	Renewable Portfolio Standard
RPT	roadway performance targets
RTP	regional transportation plans
RWQCB	regional water quality control boards

SACOG	Sacramento Area Council of Governments
SAFE Rule	Safer Affordable Fuel-Efficient Vehicles Rule
SAFE	Safer Affordable Fuel-Efficient
SASD	Sacramento Area Sewer District
SB	Senate Bill
SCGA	Sacramento Central Groundwater Authority
SCS	sustainable communities strategies
SCWA	Sacramento County Water Agency
SDMP	Storm Drain Master Plan
SEPA	Southeast Planning Area
SFD	Sacramento Fire Department
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMFD	Sacramento Metropolitan Fire District
SMUD	Sacramento Municipal Utility District
SPA	special planning area
SPCC	Spill Prevention, Control, and Countermeasure
SPL	sound pressure level
SR 99	State Route 99
SR	State Route
SRRE	source reduction and recycling element
SRWTP	Sacramento Regional Wastewater Treatment Plant
SRWWTP	Sacramento Regional Wastewater Treatment Plant
SSA	south service area
State Water Board	State Water Resources Control Board
SVAB	Sacramento Valley Air Basin
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resource Control Board
SWRCB-DDW	State Water Resources Control Board Division of Drinking Water
SWTP	Surface Water Treatment Plant
TAC	toxic air contaminant
TDS	total dissolved solids
TMDL	total maximum daily load
tpy	tons per year
TSCA	Toxic Substances Control Act
UPRR	Union Pacific Railroad
US DOT	U.S. Department of Transportation
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey
UST	underground storage tanks

UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compounds
VPH	vehicles per hour
WDR	Waste Discharge Requirements
WSIP	Water System Infrastructure Plan
ZEV	zero-emission vehicle
ZNE	zero net energy

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This summary is provided in accordance with California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15123. As stated in Section 15123(a), “an EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical.” As required by the guidelines, this chapter includes (1) a summary description of the City of Elk Grove Housing Element and Safety Element Update (Project), (2) a synopsis of environmental impacts and recommended mitigation measures (Table ES-1, presented at the end of this chapter), (3) identification of the alternatives evaluated and of the environmentally superior alternative, and (4) a discussion of the areas of controversy associated with the Project.

ES.2 SUMMARY DESCRIPTION OF THE PROJECT

The proposed City of Elk Grove 2021-2029 Housing Element Update and Safety Element Update (Housing Element and Safety Element Update or Project) would amend the City of Elk Grove General Plan (General Plan) to update the Housing Element, amend the General Plan land use designations and zoning designations for up to 43 sites in the City, and amend the General Plan to update the Safety Element.

ES.2.1 Project Background and History

State law requires each city and county to adopt a general plan containing at least eight elements including a housing element. The housing element, required to be updated regularly, is subject to detailed statutory requirements and mandatory review by the State Department of Housing and Community Development (HCD). This Housing Element Update is an update of the City’s previous housing element, which was adopted by the Elk Grove City Council on February 12, 2014 and certified by HCD on March 21, 2014.

Housing element law requires local governments to plan adequately to accommodate their existing and projected housing needs, including their share of the regional housing need. Housing element law is the State’s primary market-based strategy to increase housing supply, choice, and affordability. The law recognizes that in order for the private for-profit and non-profit sectors to adequately address housing needs and demand, local governments must adopt land use plans and regulatory requirements that provide opportunities for, and do not unduly constrain, housing development.

The timing for jurisdictions to update their housing elements is based on the update schedule of the regional transportation plans (RTPs) by the federally designated metropolitan planning organizations (MPOs). The City of Elk Grove is a member of the Sacramento Area Council of Governments (SACOG), which is the designated MPO for the region. SACOG is required to update its Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) every four years, which puts all member jurisdictions on a schedule to update their housing elements every eight years. The SACOG board adopted the 2020 MTP/SCS and accompanying documents at a special board meeting on November 18, 2019. For SACOG’s member jurisdictions, the 6th Cycle Housing Element planning period extends from May 15, 2021 through May 15, 2029.

Approved in 2019, Assembly Bill (AB) 747 (Levine) requires jurisdictions to review and update as necessary their safety element to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. This information must be included by January 1, 2022, or upon approval of the next update to the Local Hazard Mitigation Plan. Also approved in 2019, Senate Bill (SB) 99 (Nielsen) requires jurisdictions, upon the next revision of the housing element on or after January 1, 2020, to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least 2 emergency evacuation routes. The proposed Safety Element Update addresses the requirements of these bills.

ES.2.2 Project Objectives

The purpose of the Housing Element Update is to address the housing needs of the City and to meet the requirements of State law. The Housing Element Update includes the following goals:

GOAL H-1: Adequate sites to accommodate the City's housing needs.

GOAL H-2: Adequate housing stock to meet the needs of extremely low-, very low-, low-, and moderate-income households and special-needs groups.

GOAL H-3: Development regulations that remove constraints to the maintenance, improvement, and development of housing.

GOAL H-4: Maintenance and improvement of affordable housing conditions

GOAL H-5: Housing opportunities for all persons, regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.

GOAL H-6: Preservation of assisted (subsidized) housing developments for lower-income households.

The purpose of the Safety Element Update is to meet the requirements of AB 747 (Levine) and SB 99 (Nielsen). AB 747 requires jurisdictions to review and update as necessary their safety element to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. SB 99 requires jurisdictions to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least 2 emergency evacuation routes. The Safety Element Update includes revisions to Goal SAF-1: A Safe Community.

ES.2.3 Project Location

The City is located in Sacramento County and consists of approximately 42 square miles within its boundary (see Figure 2-1). Land uses are regulated under the City General Plan, which was comprehensively updated in 2019. The City General Plan established a Planning Area (approximately 31,238 acres) which includes all land within the current City limits as well as lands outside the City limits. Existing land uses in the City consist of residential at varying densities, commercial, office, industrial, park, and open space. Beyond the City limits, the Planning Area primarily consists of agricultural lands and rural residential uses. Nearby natural open space and habitat areas include the Stone Lakes National Wildlife Refuge and the Sacramento River to the west, the Cosumnes River Preserve to the south, and the Sacramento Regional County Sanitation District (Regional San) bufferlands to the northwest. Major roadway access to the City is provided by Interstate 5 (I-5) and State Route 99 (SR 99).

ES.2.4 Project Characteristics

As identified above, the General Plan was comprehensively updated in 2019. The 2019 update incorporated the 2013–2021 Housing Element into General Plan Chapter 4, "Urban and Rural Development," and its provisions of sufficient land, with appropriate use designations, for the construction of the housing units that the City must accommodate according to the Regional Housing Needs Allocation (RHNA) by 2021 (7,401 housing units). The purpose of the 2021–2029 Housing Element Update is to establish parameters for future residential development and provide opportunities for purposeful expansion that are aligned with community desires, as well as regional growth objectives and State law. The proposed Housing Element Update is compliant with Government Code Section 65583, which identifies the requirements for General Plan Housing Element sections. In summary, Government Code Section 65583 requires that the Housing Element identify and analyze existing and projected housing needs, as well as establish goals, policies, and actions to address these housing needs, including adequate provisioning of affordable and special-needs (e.g., agricultural workers, homeless people, seniors, single-parent households, large families, and persons with disabilities) housing.

The General Plan also included Chapter 8, "Services, Health, and Safety," which includes goals and policies related to the following topics: Disaster and Emergency Risk Reduction (ER); Disaster and Emergency Response and Public Safety (SAF); Urban Infrastructure (INF); Community Infrastructure and Facilities (CIF); Infrastructure Financing and Phasing (IFP); Community Health (HTH); Community Services (CS); and Noise (N). The Project includes revisions to the Safety Element of the General Plan. These changes are required by AB 747 and SB 99 and incorporate emergency access route information.

ES.3 ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

This EIR has been prepared pursuant to CEQA (PRC Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000 et seq.) to evaluate the physical environmental effects of the proposed Project. The City is the lead agency for the Project. The City Council has the principal responsibility for approving the Project and for ensuring that the requirements of CEQA have been met.

Table ES-1, presented at the end of this chapter, provides a summary of the environmental impacts of the Project. The table identifies the level of significance of the impact before mitigation, recommended mitigation measures, and the level of significance of the impact after implementation of the mitigation measures.

For detailed discussions of all Project impacts and mitigation measures, the reader is referred to the topical environmental analysis in Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures." Cumulative impacts are discussed in Chapter 4, "Cumulative Impacts."

ES.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Implementing the Project would result in the following significant and unavoidable impacts:

- ▶ Impact 3.12-3: Increased Demand for New Public School Facilities
- ▶ Impact 3.13-1: Result in an Exceedance of City of Elk Grove General Plan VMT Thresholds
- ▶ Impact 4-20: Cumulative Public School Impacts
- ▶ Impact 4-22: Cumulative Impacts on Vehicle Miles Traveled

ES.5 ALTERNATIVES TO THE PROPOSED PROJECT

The following alternatives are evaluated in this Draft SEIR. The reader is referred to Chapter 5, "Alternatives," for a further discussion of alternatives.

- ▶ **Alternative 1: No Project Alternative** assumes continued implementation of the City's 2013 Housing Element and the Safety Element as adopted with the 2018 General Plan. No changes would be made to address the requirements of State law. The housing sites would retain their current General Plan land use and zoning designations.
- ▶ **Alternative 2: Reduced Sites Alternative** includes sufficient sites to meet the City's RHNA allocation but would reduce the extent of total housing sites to provide a buffer for the RHNA allocation.

ES.6 AREAS OF CONTROVERSY

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify the areas of controversy known to the lead agency, including issues raised by agencies and the public. The areas of controversy associated with the Project are:

- ▶ potential increases in traffic noise; and
- ▶ transportation impacts related to vehicle miles traveled (VMT).

These issues are each addressed in this Draft SEIR. Any impacts related to these issues are identified either as less than significant or as less than significant after mitigation with the exception of the impacts identified under the heading "Significant and Unavoidable Impacts," above. Issues related to impacts identified as significant and unavoidable remain areas of controversy.

ES.7 ISSUES TO BE RESOLVED

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify issues to be resolved related to the proposed project. Issues to be resolved by the City are identified below, including issues that will not necessarily be resolved through the SEIR:

- ▶ Should the Housing Element and Safety Element Update be approved as proposed?
- ▶ Should the existing or candidate housing sites identified in the Housing Element Update be modified?
- ▶ Are there any additional policy provisions that should be considered in both element updates?

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Aesthetics			
<p>Impact 3.1-1: Potential to Substantially Degrade the Existing Visual Character or Quality of Public Views of the Project Area and Its Surroundings The General Plan EIR determined that buildout of the City's Planning Area would cause conversion from a rural/natural character to a more urbanized character and this impact would be significant and unavoidable. Future development associated with the Housing Element Update and implementation of the Safety Element Update would result in the development of high-density residential uses and potential emergency and evacuation access improvements that would be similar in development character that was evaluated in the General Plan EIR, on parcels currently zoned for residential or commercial uses. Therefore, the Project would not result in a new or substantially more severe impacts than were addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with City Municipal Code Chapter 19.12 and Section 23.16.080.	LTS
<p>Impact 3.1-2: Potential to Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views in the Area The General Plan EIR determined that buildout of the City's Planning Area would create substantial new sources of light and glare and the impact would be significant and unavoidable. Future development associated with the Housing Element Update and implementation of the Safety Element Update would create nighttime lighting within the City similar to conditions anticipated for the planned urban land uses for the City under the General Plan. The Project would be subject to the City's General Plan policies, Design Guidelines, and Municipal Code requirements that address lighting and glare; in addition, lighting, including adverse effects of glare and light trespass or spillover light are considerations addressed by the City through the site plan and design review process. All future development in the General Plan Planning Area would be subject to this review process, ensuring that the effects of glare and spillover light would be addressed. Therefore, the Project would not result in a new or substantially more severe impacts than were addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with Municipal Code Chapter 23.56 and Section 23.16.080.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Air Quality			
<p>Impact 3.2-1: Construction Emissions of Criteria Air Pollutants and Precursors The General Plan EIR Impact 5.3.1 determined that development and growth under the General Plan could result in short-term construction emissions that could violate or substantially contribute to a violation of the NAAQS and CAAQS for ozone, PM₁₀, and PM_{2.5}. This impact was identified as significant and unavoidable. Implementation of the Housing Element and Safety Element Update could generate construction emissions of ROG, NO_x, PM₁₀, and PM_{2.5} from demolition, material and equipment delivery trips, worker commute trips, and other miscellaneous activities. However, construction activities and emissions from implementation of the Housing Element and Safety Element Update would be similar to what was anticipated under the General Plan EIR and its current land use designations. Subsequent projects would be required to comply with General Plan Policy NR-4-8, which would require that emissions in exceedance of SMAQMD's thresholds of significance be mitigated. Therefore, construction-generated emissions would not result in a new or substantially more severe construction air quality impacts than was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policy NR-4-8 and its standards that require implementation of the SMAQMD Basic Construction Emission Control Practices.	LTS
<p>Impact 3.2-2: Long-Term Operational Emissions of ROG, NO_x, PM₁₀, and PM_{2.5} General Plan EIR Impact 5.3.2 and 5.3.6 determined that long-term operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5} would be substantial and could substantially contribute to a violation of the NAAQS and CAAQS for ozone and PM and conflict with air quality attainment efforts. This impact was identified as significant and unavoidable. Implementation of the Housing Element and Safety Element Update could generate long-term operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5}. However, emissions from implementation of the Housing Element and Safety Element Update would be similar to what was anticipated under the General Plan EIR and its current land use designations. Therefore, operational emissions would not result in a new or substantially more severe air quality impacts that was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policy NR-4-1, Policy MOB-1-1, and Standard MOB-3-2a, and Municipal Code Sections 16.07.200 through 16.07.500 and 23.58.120.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 3.2-3: Exposure of Sensitive Receptors to Substantial Carbon Monoxide Pollutant Concentrations</p> <p>The General Plan EIR concluded that the Project would not contribute to localized concentrations of mobile-source CO impacts. Implementation of the Housing Element and Safety Element Update would include different land uses and would distribute vehicle trips throughout the City; however, this redistribution would not result in a new impact. Based on modeling performed for this analysis, the maximum number of housing sites proposed under the Housing Element Update could generate a maximum of 32,600 daily trips; however, the trips would be distributed throughout the City and into the region and would not be focused within one intersection exclusively. Therefore, there is no new effect and the impact is not substantially more severe than the impact identified in the General Plan. This impact would remain less than significant as identified in the General Plan EIR.</p>	LTS	No mitigation is required.	LTS
<p>Impact 3.2-4: Exposure of Sensitive Receptors to TACs</p> <p>The General Plan EIR concluded that operational-related emissions of mobile source TACs would result in significant and unavoidable impacts to public health. Implementation of the Housing Element and Safety Element Update could generate mobile source TACs. However, these TAC emissions would be similar to what was anticipated under buildout conditions as described in the General Plan EIR and its current land use designations. Therefore, potential TAC mobile emissions would not result in a new or substantially more severe TAC impacts that was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policies NR-2-4, NR-4-9, NR-4-10, MOB-3-1, MOB-3-2, MOB-3-5, MOB-3-6, MOB-3-7, MOB-3-13, and MOB-7-5.	LTS
<p>Archaeological, Historical, and Tribal Cultural Resources</p>			
<p>Impact 3.2-1: Construction Emissions of Criteria Air Pollutants and Precursors</p> <p>The General Plan EIR Impact 5.3.1 determined that development and growth under the General Plan could result in short-term construction emissions that could violate or substantially contribute to a violation of the NAAQS and CAAQS for ozone, PM₁₀, and PM_{2.5}. This impact was identified as significant and unavoidable. Implementation of the Housing Element and Safety Element Update could generate construction emissions of ROG, NO_x, PM₁₀, and PM_{2.5} from demolition, material and equipment delivery trips, worker commute trips, and other miscellaneous activities. However, construction activities and emissions from implementation of the Housing Element and Safety Element Update would be similar to what was anticipated under the General Plan EIR and its current land use</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policy NR-4-8 and its standards that require implementation of the SMAQMD Basic Construction Emission Control Practices.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p style="text-align: center;"> NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable </p>			
<p>designations. Subsequent projects would be required to comply with General Plan Policy NR-4-8, which would require that emissions in exceedance of SMAQMD's thresholds of significance be mitigated. Therefore, construction-generated emissions would not result in a new or substantially more severe construction air quality impacts than was addressed in the General Plan EIR. Project impacts would be less than significant.</p>			
<p>Impact 3.2-2: Long-Term Operational Emissions of ROG, NO_x, PM₁₀, and PM_{2.5} General Plan EIR Impact 5.3.2 and 5.3.6 determined that long-term operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5} would be substantial and could substantially contribute to a violation of the NAAQS and CAAQS for ozone and PM and conflict with air quality attainment efforts. This impact was identified as significant and unavoidable. Implementation of the Housing Element and Safety Element Update could generate long-term operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5}. However, emissions from implementation of the Housing Element and Safety Element Update would be similar to what was anticipated under the General Plan EIR and its current land use designations. Therefore, operational emissions would not result in a new or substantially more severe air quality impacts that was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policy NR-4-1, Policy MOB-1-1, and Standard MOB-3-2a, and Municipal Code Sections 16.07.200 through 16.07.500 and 23.58.120.	LTS
<p>Impact 3.2-3: Exposure of Sensitive Receptors to Substantial Carbon Monoxide Pollutant Concentrations The General Plan EIR concluded that the Project would not contribute to localized concentrations of mobile-source CO impacts. Implementation of the Housing Element and Safety Element Update would include different land uses and would distribute vehicle trips throughout the City; however, this redistribution would not result in a new impact. Based on modeling performed for this analysis, the maximum number of housing sites proposed under the Housing Element Update could generate a maximum of 32,600 daily trips; however, the trips would be distributed throughout the City and into the region and would not be focused within one intersection exclusively. Therefore, there is no new effect and the impact is not substantially more severe than the impact identified in the General Plan. This impact would remain less than significant as identified in the General Plan EIR.</p>	LTS	No mitigation is required.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 3.2-4: Exposure of Sensitive Receptors to TACs The General Plan EIR concluded that operational-related emissions of mobile source TACs would result in significant and unavoidable impacts to public health. Implementation of the Housing Element and Safety Element Update could generate mobile source TACs. However, these TAC emissions would be similar to what was anticipated under buildout conditions as described in the General Plan EIR and its current land use designations. Therefore, potential TAC mobile emissions would not result in a new or substantially more severe TAC impacts that was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policies NR-2-4, NR-4-9, NR-4-10, MOB-3-1, MOB-3-2, MOB-3-5, MOB-3-6, MOB-3-7, MOB-3-13, and MOB-7-5.	LTS
<p>Archaeological, Historical, and Tribal Cultural Resources</p>			
<p>Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of a Historical Resource General Plan EIR Impact 5.5.1 determined that implementation of the General Plan could result in impacts to historical resources and identified that implementation of Mitigation Measure 5.5.1a would reduce this impact to a less-than-significant level. Future development associated with the Housing Element and Safety Element Update could be located on properties that contain previously unevaluated historic-age buildings or structures which could result in damage to or destruction to these features. If they are found to be eligible for listing in the NRHP, CRHR, or the Elk Grove Register of Historic Resources, the impact to historical resources would be potentially significant. However, all projects within the city would be subject to adopted General Plan Mitigation Measure 5.5.1a. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. The Project would result in a less-than-significant impact to historical resources.</p>	LTS	No new mitigation is required beyond compliance with General Plan Policy HR-2-1 and implementation of adopted General Plan Mitigation Measure 5.5.1a.	LTS
<p>Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources General Plan EIR Impact 5.5.1 determined that implementation of the General Plan could result in significant impacts to archaeological resources and identified that implementation of Mitigation Measures 5.5.1a and 5.5.1b would reduce this impact to a less-than-significant level. Future development associated with the Housing Element and Safety Element Update could be located on properties that contain known or unknown archaeological resources and ground-disturbing activities could result in discovery or damage of yet undiscovered archaeological resources</p>	LTS	No new mitigation is required beyond implementation of adopted General Plan EIR Mitigation Measures 5.5.1a and 5.5.1b.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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as defined in CEQA Guidelines Section 15064.5. This would be a potentially significant impact. However, all projects within the City would be subject to adopted General Plan Mitigation Measures 5.5.1a and 5.51b. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. The Project would result in a less-than-significant impact to archaeological resources.			
<p>Impact 3.3-3: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource</p> <p>Because no California Native American tribes responded to AB 52 notification letters, no tribal cultural resources were identified. It is possible that tribal cultural resources could be identified during analysis of subsequent projects associated with the Housing Element or Safety Element Update. General Plan EIR Impact 5.5.1 determined that implementation of the General Plan could result in impacts to tribal cultural resources and identified that implementation of Mitigation Measures 5.5.1a and 5.51b would be required. However, compliance with PRC Section 21080.3.2 and Section 21084.3 (a) would make this impact less than significant. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. The Project would result in a less-than-significant impact to tribal cultural resources.</p>	LTS	No additional mitigation is required beyond compliance with California PRC 21081.3 and implementation of adopted Mitigation Measures 5.5.1a and 5.5.1b.	LTS
<p>Impact 3.3-4: Disturb Human Remains</p> <p>Un-marked human interments are known to exist in Elk Grove and the surrounding area. It is possible that ground-disturbing construction activities associated with the Housing Element and Safety Element Update could uncover previously unknown human remains. General Plan EIR Impact 5.5.1 determined that implementation of the General Plan could result in impacts to tribal cultural resources and identified that implementation of Mitigation Measure 5.51b would be required. However, compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would make this impact less than significant. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. The Project would result in a less-than-significant impact to human.</p>	LTS	No additional mitigation is required beyond compliance with California Health and Safety Code Section 7050.5 and California PRC Section 5097.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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Biological Resources			
<p>Impact 3.4-1: Result in Disturbance or Loss of Special-Status Plant Species or Habitat General Plan EIR Impact 5.4.1 identified significant and unavoidable impacts to special status plant species and habitat. Potential land use conversion and development as part of implementation of the Housing Element and Safety Element Update could result in disturbance to or loss of several special-status plant species if they are present. The loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species. Implementation of General Plan standards and policies would address impacts on special-status plants as a result of land conversion, ground disturbance, and construction because they would require a biological resources evaluation to identify special-status plants, avoidance of sensitive habitats where special-status plants are known or may occur, and implementation of appropriate mitigation to preserve and enhance habitat that supports special-status plants, or compensate for loss of occupied habitat if preservation is not possible as required by local, state, and federal law. The Housing Element and Safety Element Update would not result in a new or substantially more severe impact to special-status plant species that was addressed in the General Plan EIR because it would not substantially expand the overall planned development footprint of the City and would be subject to City policy provisions. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with City General Plan policies NR-1-2, NR-1-4, and standards NR-1.2a and NR-1.2c as well as through permitting by CDFW and USFWS.	LTS
<p>Impact 3.4-2: Result in Disturbance or Loss of Special-Status Wildlife Species or Habitat General Plan EIR Impacts 5.4.1 and 5.4.2 identified significant and unavoidable impacts to special status wildlife species and habitat. Potential land use conversion and development as part of the Housing Element and Safety Element Update implementation may include ground disturbance, tree removal, and construction of new buildings and infrastructure, which may result in disturbance to or of loss of special-status wildlife species and reduced breeding productivity of these species. Implementation of General Plan standards and policies would reduce significant impacts on special-status wildlife as a result of land conversion, ground disturbance, and construction because they would require a biological resources evaluation to identify special-status wildlife, avoidance of sensitive habitats where special-status wildlife may occur, and implementation of appropriate mitigation to preserve and enhance habitat that supports special-status wildlife, or compensate for loss of habitat, as required by local, state, and federal law. The Housing Element</p>	LTS	No additional mitigation is required beyond compliance with City General Plan policies NR-1-2, NR-1-4, and standards NR-1.2b and NR-1.2c, City Municipal Code Chapter 16.130, and through permitting by CDFW and USFWS.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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<p>and Safety Element Update would not result in a new or substantially more severe impact to special-status wildlife species that than was addressed in the General Plan EIR because it would not substantially expand the overall planned development footprint of the City and would be subject to City policy provisions. Project impacts would be less than significant.</p>			
<p>Impact 3.4-3: Result in Degradation or Loss of State or Federally Protected Wetlands, Including Vernal Pools General Plan EIR Impact 5.4.3 identified less than significant impacts to wetlands through compliance with existing federal, state, and local regulations and General Plan policy provisions. Implementation of the Housing Element and Safety Element Update may include ground disturbance, vegetation removal, and habitat conversion, which may result in degradation (e.g., inadvertent fill) or loss of State or federally protected wetlands, including vernal pools. Implementation of existing federal, state, and local regulations and General Plan policy provisions would reduce significant impacts on state and federally protected wetlands as a result of land conversion, ground disturbance, and construction because they would require a biological resources evaluation to identify sensitive habitats, avoidance of wetlands, vernal pools, marshland, and riparian areas, and implementation of appropriate mitigation to preserve and enhance these habitats as required by local, state, and federal law. The Housing Element and Safety Element Update would not result in a new or substantially more severe impact to wetland resources than was addressed in the General Plan EIR because it would not substantially expand the overall planned development footprint of the City and would be subject to City policy provisions. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with City General Plan policies NR-1-2, NR-1-4, and standards NR-1.2b and NR-1.2c and through permitting by CDFW and USFWS.	LTS
<p>Impact 3.4-4: Conflict with Local Policies and Ordinances Implementation of the Housing Element and Safety Element Update would be required comply with City of Elk Grove Municipal Code Chapter 19.12 Tree Preservation and Protection, which would require preparation of an arborist report if subsequent projects contain trees that would be removed, as well as identification and protection measures for trees of local importance. The Housing Element and Safety Element Update would not result in a new or substantially more severe impacts that was addressed in the General Plan EIR because it would not expand the overall planned development footprint of the City. Project impacts would be less than significant.</p>	LTS	No additional mitigation beyond compliance with the General Plan and the City Municipal Code Chapter 19.13.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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Energy			
<p>Impact 3.5-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy during Project Construction or Operation</p> <p>The General Plan EIR evaluated the energy consumption associated with the land uses proposed under the General Plan and concluded that energy consumption would not be wasteful, inefficient, or unnecessary because development would be required to comply with the most recent versions of the California Energy Code and actions under the Elk Grove CAP that include zero net energy requirements in 2020 and 2030 for residential and commercial development. Implementation of the Housing Element and Safety Element Update could result in the consumption of additional energy supplies during construction in the form of gasoline and diesel fuel consumption; however, this energy expenditure would not be considered wasteful when compared to other construction projects. Operation of housing sites under the Housing Element Update would also result in additional energy consumption but would be required to comply with the most recent version of the California Energy Code and the CAP. Implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe energy impacts that was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with the City’s CAP and the 2019 California Energy Code and any subsequent code updates.	LTS
<p>Impact 3.5-2: Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency</p> <p>The General Plan EIR evaluated consistency with applicable state or local plans for renewable energy and energy efficiency and concluded that the land use under the General Plan would not conflict with an applicable plan. Implementation of the Housing Element and Safety Element Update could increase energy demands compared to existing conditions; however, development would be required to comply with applicable California Energy Code. Additionally, the City’s CAP contains several measures that would apply to the housing sites that would reduce overall energy demand. As a result, implementation of the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the Housing Element and Safety Element Update would not have a more severe impact than what was identified in the General Plan EIR. This impact would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with the City’s CAP, including measures BE-1, BE-5, BE-6, BE-7, BE-8, and ACM-5, and Municipal Code Chapter 16.07 and Section 23.58.120.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Energy			
<p>Impact 3.5-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy during Project Construction or Operation</p> <p>The General Plan EIR evaluated the energy consumption associated with the land uses proposed under the General Plan and concluded that energy consumption would not be wasteful, inefficient, or unnecessary because development would be required to comply with the most recent versions of the California Energy Code and actions under the Elk Grove CAP that include zero net energy requirements in 2020 and 2030 for residential and commercial development. Implementation of the Housing Element and Safety Element Update could result in the consumption of additional energy supplies during construction in the form of gasoline and diesel fuel consumption; however, this energy expenditure would not be considered wasteful when compared to other construction projects. Operation of housing sites under the Housing Element Update would also result in additional energy consumption but would be required to comply with the most recent version of the California Energy Code and the CAP. Implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe energy impacts that was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with the City’s CAP and the 2019 California Energy Code and any subsequent code updates.	LTS
<p>Impact 3.5-2: Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency</p> <p>The General Plan EIR evaluated consistency with applicable state or local plans for renewable energy and energy efficiency and concluded that the land use under the General Plan would not conflict with an applicable plan. Implementation of the Housing Element and Safety Element Update could increase energy demands compared to existing conditions; however, development would be required to comply with applicable California Energy Code. Additionally, the City’s CAP contains several measures that would apply to the housing sites that would reduce overall energy demand. As a result, implementation of the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the Housing Element and Safety Element Update would not have a more severe impact than what was identified in the General Plan EIR. This impact would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with the City’s CAP, including measures BE-1, BE-5, BE-6, BE-7, BE-8, and ACM-5, and Municipal Code Chapter 16.07 and Section 23.58.120.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Geology and Soils			
<p>Impact 3.6-1: Result in Substantial Soil Erosion The General Plan EIR determined that the potential for erosions resulting from future development activities would be mitigated to a less-than-significant level through implementation of City Municipal Code Chapter 16.44 and the requirements of NPDES Permit Number CA0082597 that provides standards for erosion control. Grading and excavation activities resulting from implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe impact to soil erosion that was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with City Municipal Code Chapter 16.44 and the requirements of NPDES Permit Number CA0082597.	LTS
<p>Impact 3.6-2: Locate Project Facilities on Expansive or Unstable Soils, Creating Substantial Risks to Life or Property General Plan EIR Impact 5.6.3 determined that potential impacts from unstable soils on future development activities would be mitigated to a less-than-significant level through compliance with the CBC that is implemented by Chapter 16.04 of the Municipal Code through special design and construction methods. Implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe soil stability impacts that was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with Municipal Code Chapter 16.04 which implements the CBC.	LTS
<p>Impact 3.6-3: Loss of a Unique Paleontological Resource or Geologic Feature General Plan EIR Impact 5.6.5 identified that implementation of the General Plan could result in impacts to paleontological resources and identified that implementation of Mitigation Measure 5.6.5 would reduce this impact to a less-than-significant level. All projects within the City would be subject to adopted General Plan Mitigation Measure 5.6.5. Grading and excavation activities resulting from implementation of the Housing Element and Safety Element Update would be required to comply with this mitigation measure and would not result in a new or substantially more severe impact to paleontological resources that what was addressed in the General Plan EIR. With implementation of adopted General Plan Mitigation Measure 5.6.5, the project would result in a less-than-significant impact to paleontological resources.</p>	LTS	No new mitigation is required beyond implementation of adopted General Plan EIR Mitigation Measure 5.6.5.	LTS

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Greenhouse Gas Emissions and Climate Change			
<p>Impact 3.7-1: Project-Generated GHG Emissions The General Plan EIR determined that GHG-related impacts would be less than significant through the incorporation of GHG reduction actions included in the General Plan and 2019 CAP (Impact 5.7.1) but would not likely meet long term reduction goals under Executive Order S-3-05 and result in a significant and unavoidable impact (Impact 5.7.2). Construction and operation of the existing and candidate housing sites under the Housing Element Update would generate an estimated 35,769 MTCO_{2e}/year in 2030, the assumed first full year of Project operation. Consistent with the findings of the General Plan EIR, new housing resulting from the implementation of the Housing Element Update would be subject to the policies contained in the 2019 CAP and 2019 General Plan, which would demonstrate consistency with statewide GHG reduction goals set forth by SB 32. Implementation of the Housing Element Update would introduce housing sites of greater density and development beyond what was included in the General Plan as analyzed in the General Plan EIR. The Project, as it includes as a component of the General Plan, would alter the rate that operational emissions would be generated. However, because the residential development under the Housing Element Update would be subject to applicable measures in the CAP, Project emissions would be reduced consistent with statewide GHG reduction goals by 2030. This impact would not result in a new or substantially more severe impact than what was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with Measures BE-1, BE-4, BE-5, BE-6, BE-7, BE-8, and ACM-5 from the 2019 CAP and Municipal Code Chapter 16.07 and Section 23.58.120.	LTS
Hazards and Hazardous Materials			
<p>Impact 3.8-1: Risks to Human Health and the Environment Resulting from the Routine Use, Transport, Storage, and Disposal of Hazardous Materials or the Accidental Release of Hazardous Materials General Plan EIR Impact 5.8.1 determined that potential impacts from the use, transport, storage, and disposal of hazardous materials would be reduced to a less-than-significant level through compliance with General Plan policies and applicable federal, State, and local policies and regulations. Implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe soil stability impacts that was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policies ER-1-1 through ER-1-4 and State regulations including CCR Title 19, Division 2, Chapter 4.5.	LTS

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<p>Impact 3.8-2: Locating Hazardous Materials Within One-Quarter Mile of an Existing or Proposed School General Plan EIR Impact 5.8.3 evaluated the potential for hazards and hazardous emissions within one-quarter mile of existing or proposed schools and concluded that compliance with General Plan policies as well as applicable regulations would ensure that impacts would not be significant. The Project could result in additional residential development than evaluated in the General Plan EIR. Implementation of the Housing Element and Safety Element Update would be required to comply with regulations and General Plan policies and would not result in a new or substantially more severe impacts that was addressed in the General Plan EIR. This impact would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policies ER-1-1, ER-1-2, ER-1-3, and ER-1-5.	LTS
<p>Impact 3.8-3: Development on Land Registered in a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 General Plan EIR Impact 5.8.2 identified that implementation of the General Plan could result in impacts related to contaminated sites and identified that implementation of Mitigation Measure 5.8.2 would reduce this impact to a less-than-significant level. All projects within the City would be subject to adopted General Plan Mitigation Measure 5.8.2 and all applicable local, State, and federal regulations. Site development activities resulting from implementation of the Housing Element and Safety Element Update would be required to comply with this mitigation measure and would not result in a new or substantially more severe impact to contaminated sites than what was addressed in the General Plan EIR. With implementation of adopted General Plan Mitigation Measure 5.8.2, the project would result in a less-than-significant impact.</p>	LTS	No additional mitigation is required beyond implementation of adopted General Plan EIR Mitigation Measure 5.8.2	LTS
<p>Impact 3.8-4: Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan The Project would not interfere with the Sacramento County LHMP or the City's EOP. Therefore, this impact would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with Sacramento County LHMP and the City's EOP.	LTS
<p>Hydrology and Water Quality</p>			
<p>Impact 3.9-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Substantially Degrade Surface Water or Groundwater Quality during Construction Activities General Plan EIR Impact 5.9.1 determined that potential impacts on water quality from future development activities would be reduced to a less-than-significant level through compliance with all applicable requirements, which could include</p>	LTS	No additional mitigation is required beyond compliance with Municipal Code Chapter 16.44 and the Construction General NPDES Permit.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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Chapter 16.44 of the Elk Grove Municipal Code and the State’s Construction General NPDES permit. Implementation of the Housing Element and Safety Element Update would be required to comply with these requirements and would not result in a new or substantially more severe water quality impacts than was addressed in the General Plan EIR. Project impacts would be less than significant.			
<p>Impact 3.9-2: Violate Any Water Quality Standards or Substantially Degrade Surface Water or Groundwater Quality from Polluted Stormwater Runoff General Plan EIR Impact 5.9.1 determined that potential impacts on water quality from polluted stormwater runoff from future development would be reduced to a less-than-significant level through compliance with all applicable regulations and General Plan policies. Implementation of the Housing Element and Safety Element Update would be required to comply with these requirements and would not result in a new or substantially more severe impacts from polluted stormwater runoff than was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with the City’s MS4 permit, General Plan Policies NR-3-2, NR-3-3, and LU-5-12, and Municipal Code Chapter 15.12.	LTS
<p>Impact 3.9-3: Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That the Project May Impede Sustainable Groundwater Management General Plan EIR Impact 5.9.4 determined that impacts on groundwater supplies from future development under the General Plan would be significant and unavoidable for areas that would be annexed into the City. The Project involves parcels within the City and would not include any annexation activities. While the Project would add additional residential units beyond what was anticipated in the General Plan EIR, the increase in demand for water supply would be minor in comparison with anticipated supply surpluses. Therefore, Project impacts would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.9-4: Increase Localized Flooding Risk Because of Changes in Site Drainage General Plan EIR Impact 5.9.2 determined that potential increases in flooding resulting from future development would be reduced to a less-than-significant level through compliance with all applicable regulations and General Plan policies. Future projects under the Housing Element and Safety Element Update would be required to comply with these requirements and would not result in a new or substantially more severe drainage and flooding impacts than was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with the City’s NPDES MS4 permit requirements and Municipal Code Chapter 16.44.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 3.9-5: Impede or Redirect Flood Flows General Plan EIR Impact 5.9.3 determined that future development under the General Plan within the 100-year and 200-year flood zones could impede or redirect flood flows, but compliance with existing regulations and the proposed General Plan would ensure that impacts would be less than significant. Two of the housing sites (E-15 and C-4) are within the 200-year floodplain. Development proposals for these sites would be subject to the requirements of Municipal Code Section 23.42.040, which would ensure that development would not be approved until findings can be made pursuant to Municipal Code Section 23.42.040.E. Therefore, Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with Municipal Code Section 23.42.040.	LTS
<p>Land Use, Planning, Population, and Housing</p>			
<p>Impact 3.10-1: Induce Substantial Population Growth The Housing Element Update would accommodate up to 2,722 net new dwelling units, which would accommodate approximately 8,765 people (based on 3.22 persons per household). This growth would be within the projections generally assumed under the City’s General Plan and regional planning efforts completed by SACOG. This impact would be less than significant.</p>	LTS	No mitigation is required.	LTS
<p>Impact 3.10-2: Conflicts with Applicable Land Use Plans, Policies, or Regulations The Project would update the Housing Element and Safety Element of the General Plan, amend the General Plan land use map, amend the Laguna Ridge Specific Plan, and revise the Zoning Code. These amendments would ensure compliance with State law requirements for these elements and meet RHNA allocations for the City that were established by SACOG. The Project is consistent with General Plan policies related to environmental protections associated with land use, including those identified under Regulatory Setting that address the amount and location of growth, allowed uses, development densities and intensities, and project design. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Noise and Vibration</p>			
<p>Impact 3.11-1: Construction Activities Could Result in a Substantial Temporary Increase in Noise Levels at Nearby Noise-Sensitive Land Uses The General Plan EIR determined that the potential noise generation from construction activities could result in a substantial temporary increase in noise levels, but that this impact would be reduced through adherence to the Municipal Code and General Plan Policy N-1-7, and that in some cases the City could require</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policy N-1-8 and Municipal Code Section 6.32.100 and the Elk Grove Construction Specifications Manual.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p style="text-align: center;"> NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable </p>			
<p>a site-specific assessment and mitigation to reduce construction noise. The General Plan EIR concluded this impact would be less than significant. Construction activities associated with implementation of the Housing Element and Safety Element Updates would be required to comply with these same standards as well as General Plan Policy N-1-8 and would not result in new or substantially more several impacts related to construction noise. Project impacts would be less than significant.</p>			
<p>Impact 3.12-2: Traffic Noise General Plan EIR Impact 5.10.2 identified that implementation of the General Plan would result in a significant and unavoidable increase in transportation noise, including traffic noise levels along many existing roadways in the City. Further, Impact 5.10.2 notes that the General Plan includes a set of policies that are intended to ensure that new specific proposed development would comply with noise standards and would not adversely impact sensitive land uses from traffic noise. The policies include Policy N-1-1, Policy N-1-2, Policy N-1-4, Policy N-1-5, and Policy N-2-3. Activities resulting from implementation of the Housing Element and Safety Element Update would also be subject to the set of General Plan policies listed above and would not result in a new or substantially more severe impact. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan policies N-1-1, N-1-4, N-1-5, and N-2-3.	LTS
<p>Impact 3.11-3: Future Development Could Expose Existing Noise-Sensitive Land Uses to New Non-Transportation Noise Sources that Could Exceed the City's Applicable Noise Standards General Plan EIR Impact 5.10.3 determined that potential noise generation from future development could expose existing noise-sensitive land uses to new non-transportation noise sources that could exceed the City's applicable noise standards. Specific to residential land uses, the General Plan EIR identified lawn and garden equipment, voices, and amplified music as potential noise sources associated with residential land uses. The General Plan EIR identified Section 6.32.110 of the Municipal Code as containing hourly noise standards that apply to non-transportation noise sources. Implementation of the Housing Element Update and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe noise impacts than was addressed in the General Plan EIR. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policy N-2-1 and Municipal Code Section 6.32.110.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 3.11-4: Result in Development Projects Involving that Could Expose Receptors to Excessive Groundborne Vibration General Plan EIR Impact 5.10.4 determined that potential vibration generation from construction and operation could occur as a result of the project. Long-term vibration was mainly associated with transit system routes and maintenance activities, and vibration from increased traffic would not be perceptible. Short-term vibration associated with construction could be substantial for activities such as pile driving and vibratory rolling. Adherence to Policy N-1.9 was identified as having a mitigating effect on construction vibration. Implementation of the Housing Element Update and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe vibration impacts. Project impacts would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policy N-1-9 and Municipal Code Section 6.32.100.	LTS
Public Services and Recreation			
<p>Impact 3.12-1: Require Construction of New Fire Protection Facilities, Resulting in Adverse Environmental Impacts The General Plan EIR determined that where new growth areas within the City have been identified, new fire stations are planned to accommodate the anticipated growth and no significant impacts would occur. Compliance with applicable regulations and General Plan policies would ensure new fire station siting and resources are available. If new fire protection facilities are proposed, environmental review for the new facility would be conducted as appropriate. Project impacts associated with the construction of needed fire protection facilities would not result in a new or substantially more severe construction impacts than disclosed in the technical sections of the General Plan EIR. Development of housing sites identified in the Housing Element Update would be required to comply with applicable regulations and policies. Implementation of the Safety Element Update could provide additional improvements regarding emergency access and evacuation beyond the current Safety Element. Therefore, impacts related to the provision of fire services would be less than significant.</p>	LTS	No additional mitigation is required beyond compliance with Municipal Code Chapter 16.85 and 17.04 and General Plan policies ER-4-1, ER-4-2, SAF-1-3, and SAF-1-4.	LTS
<p>Impact 3.12-2: Require Construction of New Law Enforcement Facilities, Resulting in Adverse Environmental Impacts General Plan EIR Impact 5.11.1.2 indicated that police services operates out of a centralized facility at the City Hall complex and additional police services to accommodate development can be accomplished through additional personnel and equipment and no significant impacts would occur. Relative to the General</p>	LTS	No additional mitigation is required beyond compliance with General Plan Policy SAF-1-1 .	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p style="text-align: center;"> NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable </p>			
<p>Plan EIR, the Project would not result in new or substantially more severe impacts related to law enforcement. In addition, Elk Grove General Plan Policy SAF-1-1 directs regular monitoring and review of the level of police staffing provided in Elk Grove and ensures that sufficient staffing and resources are available to serve local needs. The addition of new officers and/or administrative staff would not require a new or expanded police facility because EGPD operations would continue within the centralized facility at the City Hall complex and additional police services to accommodate development can be accomplished through additional personnel and equipment. Therefore, impacts related to the provision of law enforcement would be less than significant.</p>			
<p>Impact 3.12-3: Increased Demand for New Public School Facilities Impact 5.11.3.1 of the General Plan EIR identifies that future development in the City would result in an increase of school-aged children and would require the construction of new public school facilities. As determined by the General Plan EIR, because school facilities would be constructed by the EGUSD the environmental impacts of school construction would be significant and unavoidable. Implementation of the Project would result in a substantial increase in student generation that could require additional school facility needs beyond current General Plan buildout. This would be a substantial increase in impact severity than what was previously identified in General Plan EIR Impact 5.11.3.1. No mitigation measures are available to reduce potentially significant impacts; thus, this impact would be significant and unavoidable.</p>	SU	<p>As stated in the General Plan EIR, no additional feasible mitigation is available beyond compliance with existing laws and General Plan policies, and payment of EGUSD fees. While the EGUSD could and should implement measures to reduce physical environmental effects of school development, the EGUSD is not subject to mitigation adopted by the City. No enforceable measures are available. Therefore, this impact would remain significant and unavoidable as determined in the General Plan EIR.</p>	SU
<p>Impact 3.12-4: Require Construction of New Park or Recreation Facilities, resulting in Adverse Environmental Impacts Impact 5.11.4.1 of the General Plan EIR identifies that increased development would increase the demand on existing recreational facilities and require the development of new recreational facilities and no significant impacts would occur. Construction of park facilities would be subject to policies, standards, and mitigation measures from the General Plan and the General Plan EIR, or the mitigation identified in project-specific MMRPs. No new or substantially more severe impacts would be associated with implementation of the Project. The impacts of park construction would be less than significant.</p>	LTS	<p>No additional mitigation is required beyond compliance with General Plan policies PT-1-3, PT-1-5, PT-1-6, and PT-1-9, City and CCSO MOU, and City Municipal Code Chapter 22.40.</p>	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Transportation			
<p>Impact 3.13-1: Result in an Exceedance of City of Elk Grove General Plan VMT Thresholds General Plan Impact 5.13.2 identified that implementation of the General Plan would result in increased VMT that would be significant and unavoidable. Project-generated VMT per service population associated with some of the housing sites rezoned under the Housing Element Update would result in an exceedance of the City's VMT per service population threshold for the High Density Residential land use designation (i.e., 20.6 VMT). The addition of Project-generated total daily VMT within the City could also result in an exceedance of the established Citywide limit of 6,367,833 VMT. Therefore, implementation of the Project could result in substantially more severe VMT impacts than identified in the General Plan EIR. Implementation of mitigation could potentially reduce the extent of this impact but would not reduce the VMT below the City VMT standards. Implementation of the Safety Element would not result in changes in planned land uses or roadway facilities that would alter VMT. Therefore, the Project would result in a significant and unavoidable impact to VMT.</p>	SU	<p>Mitigation Measure 3.13-1: Implement VMT Reduction Strategies The City of Elk Grove Transportation Analysis Guidelines includes a set of accepted and recommended VMT reduction strategies shown in Table 3.13-5 [found on page 3.13-13 of Section 3.13, Transportation]. Additionally, Table 3.13-5 shows the range of potential VMT reduction for the housing sites is identified for each category, along with the cross-category maximum that is applicable when multiple strategies are applied in combination. The application of Category E (In-Lieu Fee) is not feasible because such a fee cannot be calculated at this time.</p>	SU
<p>Impact 3.13-2: Impacts on Transit, Bicycle, and Pedestrian Facilities General Plan EIR Impact 5.13.7 identified that implementation of the General Plan would not result in conflicts with plans, policies, or programs for transit, bicycle, and pedestrian facilities. Implementation of the Housing Element and Safety Element Update would be subject to and implement General Plan policies applicable to transit, bicycle, and pedestrian facilities and service. Additionally, subsequent development projects under the Housing Element would be subject to all applicable City guidelines, standards, and specifications related to transit, bicycle, or pedestrian facilities. Therefore, there is no new significant effect and the impact is not more severe than what was addressed in the General Plan EIR . Project impacts would be less than significant.</p>	LTS	<p>No additional mitigation is required beyond compliance with the Bicycle, Pedestrian, and Trails Master Plan and General Plan Policies MOB-1-2, MOB-3-1, MOB-3-7, MOB-3-8, MOB-5-4, MOB-5-6, MOB-5-7, and H-1-3.</p>	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 3.13-3: Substantially Increase Hazards Because of a Design Feature or Incompatible Uses No significant design hazard impacts were identified in the General Plan EIR. Implementation of the Housing Element and Safety Element Update would be subject to, and constructed in accordance with, applicable roadway design and safety guidelines and General Plan policies. Therefore, the Project would not increase hazards because of a roadway design feature or incompatible uses and there is no new significant effect and the impact is not more severe than what was addressed in the General Plan EIR. The Project would result in a less-than-significant impact to transportation hazards.</p>	LTS	No additional mitigation is required beyond General Plan Policy MOB-3-10 and compliance with City standards and specifications.	LTS
<p>Impact 3.13-4: Result in Inadequate Emergency Access The internal circulation network and any changes to the external circulation network associated with the implementation of subsequent projects under the Housing Element Update would be subject to review by the City of Elk Grove and responsible emergency service agencies; thus, ensuring that the Project would be designed to meet all applicable emergency access and design standards and adequate emergency access would be provided. Implementation of the Safety Element Update policies would potentially result in emergency access improvements that would enhance emergency access. There is no new significant effect and the impact is not more severe than what was addressed in the General Plan EIR. The Project would result in a less-than-significant impact.</p>	LTS	No additional mitigation is required beyond compliance with City and Cosumnes Community Services District Fire Department standards.	LTS
<p>Utilities and Service Systems</p>			
<p>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.</p>	LTS	No additional mitigation is required beyond compliance General Plan Policy INF-1-1.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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<p>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.</p>	LTS	No mitigation is required for this impact.	LTS
<p>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.</p>	LTS	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).	LTS

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1 INTRODUCTION

This draft subsequent environmental impact report (Draft SEIR) evaluates the environmental impacts of the proposed City of Elk Grove 2021-2029 Housing Element Update and Safety Element Update (Housing Element and Safety Element Update, or Project). It has been prepared under the direction of the City of Elk Grove (City) in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000 et seq.). This chapter of the Draft SEIR provides information on:

- ▶ the Project requiring environmental analysis (synopsis);
- ▶ the type, purpose, and intended uses of this Draft SEIR;
- ▶ the Project Relationship to City General Plan;
- ▶ the scope of this Draft SEIR;
- ▶ agency roles and responsibilities;
- ▶ the public review process;
- ▶ the organization of this Draft SEIR; and
- ▶ standard terminology.

1.1 PROJECT BACKGROUND

The City, acting as the lead agency, has caused this SEIR to be prepared to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed Project. As described in State CEQA Guidelines Section 15121(a), an EIR is a public informational document that assesses potential environmental effects of the proposed project and identifies mitigation measures and alternatives to the proposed project that could reduce or avoid its adverse environmental impacts. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed land use plans and development where feasible and are obligated to balance a variety of public objectives, including economic, environmental, and social factors.

1.2 PROJECT DESCRIPTION

The following provides a brief summary and overview of the Housing Element and Safety Element Update. Chapter 2, "Project Description," of this SEIR includes a detailed description of the Project, including maps and graphics.

The Project would:

- ▶ Amend the City's General Plan to update the current Housing Element and to revise the Land Use Map for any or all of the sites as described in Table 2-1;
- ▶ Amend Elk Grove Municipal Code (EGMC) Title 23, Zoning Code, to revise the Zoning Map to rezone any or all of the sites as described in Table 2-1; and
- ▶ Amend the City's General Plan to update the Safety Element policy provisions.

1.3 TYPE, PURPOSE, SCOPE, AND INTENDED USES OF THIS DRAFT SEIR

Pursuant to State CEQA Guidelines Section 15162, an SEIR should be prepared if an EIR has been certified for a project, but one or more of the following conditions are met.

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
 - A. The project will have one or more significant effects not discussed in the previous EIR or negative declaration.
 - B. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - D. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The City certified the City of Elk Grove General Plan Update Final EIR (General Plan EIR) and adopted the General Plan in February 2019. Adoption of the General Plan included the City's 2013-2021 Housing Element, which was originally adopted on February 12, 2014 and the subject of an EIR (SCH No. 2013082012). This Project represents an update to the 2013-2021 Housing Element and, by extension, the adopted General Plan. Because the Project proposes changes to the land uses evaluated in the General Plan EIR that could involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects, the City has determined that the preparation of a SEIR is the appropriate environmental review document for the project, pursuant to the requirements of State CEQA Guidelines Section 15162.

The General Plan, Draft EIR, and Final EIR are available for review through the City and online at the following location: http://www.elkgrovecity.org/city_hall/departments_divisions/city_manager/strategic_planning_and_innovation/general_plan/documents.

An EIR is a public informational document used in the planning and decision-making process. An EIR assesses the environmental effects related to the planning, construction, and operation of a project and indicates ways to reduce or avoid significant environmental impacts. An EIR also discloses significant environmental impacts that cannot be avoided; any growth-inducing impacts of a project; effects found not to be significant; and significant cumulative impacts of past, present, and reasonably foreseeable future projects in combination with the impacts of the project.

Mitigation has been recommended where feasible to reduce or avoid the project's significant impacts. Mitigation measures from the General Plan EIR that are adopted and apply to proposed Housing Element and Safety Element Update are identified. As an informational document for decision makers, a Draft SEIR is not intended to recommend either approval or denial of a project. CEQA requires the decision makers to balance the benefits of a project against its unavoidable environmental impacts. If environmental impacts are identified as significant and unavoidable (i.e., no feasible mitigation is available to reduce the impact to a less-than-significant level), the City may still approve the project if it believes that social, economic, or other benefits outweigh the unavoidable impacts. The City would then be required to make findings and state, in writing, the specific reasons for approving the project, based on information in the Draft SEIR and other information in the administrative record. In accordance with Section 15093 of the State CEQA Guidelines, the document containing such reasons is called a "statement of overriding considerations."

The program-level analysis in this SEIR considers the broad environmental effects of the Project. This SEIR will be used to evaluate subsequent projects and activities under the Project. This SEIR is intended to provide the information and environmental analysis necessary to assist public agency decision-makers in considering approval of the Project.

Additional environmental review under CEQA may be required for subsequent projects and would be generally based on the subsequent project's consistency with the Project and the analysis in this SEIR, as required under CEQA. It may be determined that some future projects or activities under the Project may be exempt from further environmental review. When subsequent projects or activities under the Project are proposed, the City will examine the projects or activities to determine whether their effects were adequately analyzed in the General Plan EIR and this SEIR (CEQA Guidelines Section 15168(c)). If the projects or activities would have no effects beyond those disclosed in this SEIR, no further CEQA compliance would be required.

1.4 RELATIONSHIP TO THE CITY OF ELK GROVE GENERAL PLAN

The City adopted its General Plan on February 27, 2019, pursuant to Government Code Section 65300. The General Plan acts as the official policy statement of the City and guides public and private development within the City in a manner that maximizes the social and economic benefits for all citizens. In addition, the General Plan also provides policy direction that guides land use development within the City, as well as provides protection for existing natural resources. The General Plan currently contains a Housing Element and Safety Element. The 2013-2021 Housing Element addressed accommodation of the previous 2021 Regional Housing Needs Allocation (7,401 housing units). The proposed Housing Element Update would replace the existing Housing Element. The Safety Element Update would update policy provisions for consistency with Assembly Bill 747 (Levine) and Senate Bill 99 (Nielsen).

Previous environmental review for the project sites was included in the General Plan EIR (State Clearinghouse Number 2017062058). That EIR analyzed the project sites based on the adopted General Plan land use designations. A Statement of Overriding Considerations was adopted for the following impacts that were identified as potentially significant and unavoidable:

AESTHETICS, LIGHTS, AND GLARE

- ▶ Implementation of the General Plan will encourage new development and redevelopment activities that could degrade the existing visual character or quality of the Planning Area.
- ▶ Implementation of the General Plan would create new sources of daytime glare, and would change nighttime lighting and illumination levels associated with new and redevelopment activities in the Planning Area, which would contribute to skyglow.

AGRICULTURAL RESOURCES

- ▶ Implementation of the proposed Project would allow for new development in areas of the Planning Area that are designated Important Farmland and/or under Williamson Act contract.

AIR QUALITY

- ▶ Buildout of the proposed Project could result in short-term construction emissions that could violate or substantially contribute to a violation of federal and state standards for ozone, particulate matter (PM) PM₁₀, and PM_{2.5}.
- ▶ The Project could result in long-term operational emissions that could violate or substantially contribute to a violation of federal and State standards for ozone and coarse and fine particulate matter.
- ▶ The proposed Project could result in increased exposure of existing or planned sensitive land uses to stationary or mobile-source toxic air contaminants that would exceed applicable health risk standards.
- ▶ Implementation of the Project would not result in increased exposure of sensitive receptors to odorous emissions as compared to baseline conditions.

- ▶ The Project would be substantially consistent with all applicable control measures in the Sacramento Regional National Ambient Air Quality Standards (NAAQS) 8-Hour Ozone Attainment and Further Progress Plan (Attainment Plan), but because the Project would exceed the Sacramento Metropolitan Air Quality Management District's (SMAQMD) air quality thresholds of significance, the Project would not be considered to be fully consistent with the Plan's goals.

BIOLOGICAL RESOURCES

- ▶ Implementation of the proposed Project could result in adverse effects, either directly or indirectly, on species listed as endangered, threatened, rare, proposed, and candidate plants and wildlife.
- ▶ Implementation of the proposed Project could result in adverse effects, either directly or indirectly, on non-listed special status species (Species of Special Concern, fully protected, and locally important).

HYDROLOGY AND WATER QUALITY

- ▶ The proposed Project would increase the demand on water supplies, some of which would be groundwater.

NOISE

- ▶ Implementation of the proposed Project would result in a significant increase in transportation noise, including traffic noise levels along many existing roadways in the City. Even with implementation of proposed policies to limit traffic noise impacts, predicted traffic noise levels would still result in potential increases above applicable standards.

PUBLIC SERVICES AND RECREATION

- ▶ Implementation of the proposed Project would allow for future development in the Planning Area, which would result in an increase of school-aged children and require the construction of new public school facilities, the construction of which could have impacts on the physical environment.

PUBLIC UTILITIES

- ▶ Implementation of the proposed Project would increase demand for domestic water supply, which may result in the need for additional water supplies.
- ▶ Implementation of the proposed Project would require the construction of new and expanded water supply infrastructure, which could result in impacts to the physical environment.

CUMULATIVE AESTHETICS, LIGHT, AND GLARE

- ▶ Implementation of the proposed Project, in addition to other reasonably foreseeable projects in the region, would introduce new development into undeveloped agricultural and rural areas that would have a cumulatively considerable contribution to impacts on visual character.
- ▶ Implementation of the proposed Project, in addition to other reasonably foreseeable projects in the region, would introduce new development into undeveloped agricultural and rural areas, increasing nighttime lighting and daytime glare and contributing to regional skyglow.

CUMULATIVE AGRICULTURAL RESOURCES

- ▶ Implementation of the proposed Project would ultimately result in the conversion of Important Farmland and the cancellation of Williamson Act contracts. This loss would contribute to the cumulative loss of farmland in the region.

CUMULATIVE AIR QUALITY

- ▶ Throughout the air basin will exacerbate existing regional problems with criteria air pollutants and ozone precursors.

CUMULATIVE BIOLOGICAL RESOURCES

- ▶ Future development in the Planning Area, when considered together with other past, existing, and planned future projects, could result in a significant cumulative impact on biological resources in the region.

CUMULATIVE GREENHOUSE GAS EMISSIONS AND ENERGY

- ▶ Adoption of the proposed General Plan and CAP Update would result in emission reductions that are consistent with statewide reduction targets for 2020 and 2030. However, based on current emission estimates for the City projected for 2050, and considering the proposed policies and programs included in the General Plan and Climate Action Plan (CAP) Update, the proposed General Plan and CAP Update would likely not result in sufficient GHG reductions for the City to meet the longer-term goal for 2050 as stated in EO S-3-05.

CUMULATIVE HYDROLOGY AND WATER QUALITY

- ▶ Development of the Planning Area, in combination with other development in the Central Basin, would increase demand for groundwater and could potentially interfere with recharge of the aquifer.

CUMULATIVE NOISE

- ▶ Implementation of the proposed Project would contribute to cumulative noise levels along many roadway segments in the Planning Area due to increased cumulative traffic volumes.

CUMULATIVE PUBLIC SERVICES AND RECREATION

- ▶ Implementation of the proposed Project, in combination with other development in the EGUSD service area, would result in the increase of school-aged children, which would require the construction of new public school facilities, which could have impacts on the environment.

CUMULATIVE PUBLIC UTILITIES

- ▶ Implementation of the proposed Project, in combination with other development, would contribute to cumulative demand for domestic water supply.
- ▶ Implementation of the proposed Project, in addition to other development in the Regional San service area, would generate new wastewater flows requiring conveyance and treatment.

CUMULATIVE TRANSPORTATION

- ▶ Implementation of the proposed Project could cause unacceptable level of service (LOS) conditions at some intersections and on some roadway segments.

- ▶ Implementation of the proposed Project would exacerbate unacceptable (LOS F) conditions on State Route 99 and Interstate 5.
- ▶ Implementation of the proposed Project would result in increased vehicle miles traveled.

This Draft SEIR analyzes the potentially significant environmental impacts resulting from Project implementation, including amendment to the adopted General Plan land use designations and concurrent rezones. See Chapter 2, "Project Description," for a complete discussion of adopted and proposed land use designations for the sites included in the Project.

1.5 SCOPE OF THIS DRAFT SEIR

This Draft SEIR includes an evaluation of the following 14 environmental issue areas as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant unavoidable impacts, alternatives):

- ▶ Aesthetics,
- ▶ Air Quality,
- ▶ Archaeological, Historical, and Tribal Cultural Resources,
- ▶ Biological Resources,
- ▶ Energy,
- ▶ Geology and Soils,
- ▶ Greenhouse Gas Emissions and Climate Change,
- ▶ Hazards and Hazardous Materials,
- ▶ Hydrology and Water Quality,
- ▶ Land Use, Planning, Population, and Housing
- ▶ Noise and Vibration,
- ▶ Population and Housing,
- ▶ Public Services,
- ▶ Transportation, and
- ▶ Utilities and Service Systems.

Under the CEQA statutes and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (PRC Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the Project; review of applicable planning documents and CEQA documentation; field work; feedback from public and agency consultation; and comments received on the Notice of Preparation (NOP) (see Appendix A of this Draft SEIR).

The NOP was distributed on June 22, 2020 to responsible agencies, interested parties, and organizations, as well as private organizations and individuals that may have an interest in the project. The purpose of the NOP and the scoping meeting was to provide notification that an EIR for the Project was being prepared and to solicit input on the scope and content of the environmental document. Traditionally, the City hosts one Scoping Meeting for the general public during the NOP comment period. Due to the COVID-19 pandemic and related State and local health orders limiting in-person public meetings, the City provided a video presentation during the NOP comment period (June 22 to July 22). The video presentation introduced the Project, outlined the CEQA process, and provided a method for directly submitting comments on the scope of the EIR. Comments were also received in writing via postal service.

As a result of the review of existing information and the scoping process, it was determined that each of the issue areas listed above should be evaluated fully in this Draft SEIR. Further information on the NOP and scoping process is provided below in Section 1.7, "Public Review Process."

1.6 AGENCY ROLES AND RESPONSIBILITIES

1.6.1 Lead Agency

The City is the lead agency responsible for approving the Project and for ensuring that the requirements of CEQA have been met. After the SEIR public review process is complete, the City Council will determine whether to certify the SEIR (see State CEQA Guidelines Sections 15090) and approve the Project.

1.6.2 Trustee and Responsible Agencies

A trustee agency is a State agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. The only trustee agency that has jurisdiction over resources potentially affected by the project is the California Department of Fish and Wildlife (CDFW).

Responsible agencies are public agencies, other than the lead agency, that have discretionary-approval responsibility for reviewing, carrying out, or approving elements of a project. Responsible agencies should participate in the lead agency's CEQA process, review the lead agency's CEQA document, and use the document when making a decision on project elements.

Because the proposed Project includes an update to the Housing Element, the updated Housing Element will be submitted to the State Department of Housing and Community Development (HCD) for certification. The update to the Safety Element is required to be submitted to California Geological Survey of the Department of Conservation and the Central Valley Flood Protection Board for review, but these agencies are advisory and do not certify the updates. Other than HCD's certification authority, there are no agencies other than the City that have approval or permitting authority for the Project. However, implementation of the proposed Housing Element (i.e., approval of future projects) could involve many responsible agencies, depending on the details of a future project. The following are some of the agencies that could be required to act as responsible agencies for subsequent projects under the Housing Element Update.

- ▶ California Department of Fish and Wildlife (CDFW)
- ▶ Elk Grove Water District (EGWD)
- ▶ Omochumne-Hartnell Water District (OHWD)
- ▶ Sacramento Area Sewer District (SASD)
- ▶ Sacramento County Water Agency (SCWA)
- ▶ Sacramento Metropolitan Air Quality Management District (SMAQMD)
- ▶ Sacramento Municipal Utility District (SMUD)

1.7 PUBLIC REVIEW PROCESS

As identified above in Section 1.5, "Scope of this Draft SEIR," in accordance with CEQA regulations, an NOP was distributed on June 22, 2020, to responsible agencies, interested parties and organizations, and private organizations and individuals that could have interest in the project.

The purpose of the NOP was to provide notification that an EIR for the Project was being prepared and to solicit input on the scope and content of the document. The NOP and responses to the NOP are included in Appendix A of this Draft SEIR.

This Draft SEIR is being circulated for public review and comment for a period of 45 days. During this period, comments from the general public as well as organizations and agencies on environmental issues may be submitted to the lead agency.

Upon completion of the public review and comment period, a Final SEIR will be prepared that will include both written and oral comments on the Draft SEIR received during the public-review period, responses to those comments, and any revisions to the Draft SEIR made in response to public comments. The Draft SEIR and Final SEIR will comprise the SEIR for the Project.

Before adopting the Project, the lead agency is required to certify that the SEIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the SEIR, and that the SEIR reflects the independent judgment of the lead agency.

1.8 DRAFT SEIR ORGANIZATION

This Draft SEIR is organized into chapters, as identified and briefly described below. Chapters are further divided into sections (e.g., Chapter 3, "Environmental Impacts and Mitigation Measures" and Section 3.5, "Energy"):

The "Executive Summary": This chapter introduces the Project; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and lists significant impacts and mitigation measures to reduce significant impacts to less-than-significant levels.

Chapter 1, "Introduction": This chapter provides a description of the lead and responsible agencies, the legal authority and purpose for the document, and the public review process.

Chapter 2, "Project Description": This chapter describes the location, background, and goals and objectives for the Project, and describes the project elements in detail.

Chapter 3, "Environmental Impacts and Mitigation Measures": The sections within this chapter evaluate the expected environmental impacts generated by the Project, arranged by subject area (e.g., Aesthetics, Hydrology and Water Quality). Within each subsection of Chapter 3, the regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions after development of the project are then evaluated for each subject area. For any significant or potentially significant impact that would result from project implementation, mitigation measures are presented and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 3.2-1, Impact 3.2-2, Impact 3.2-3 and so forth and so on). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 3.2-2 would be Mitigation Measure 3.2-2.

Chapter 4, "Cumulative Impacts": This chapter provides information required by CEQA regarding cumulative impacts that would result from implementation of the Project together with other past, present, and probable future projects.

Chapter 5, "Alternatives": This chapter evaluates alternatives to the Project, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two alternative development options. The environmentally superior alternative is identified.

Chapter 6, "Other CEQA Sections": This chapter evaluates growth-inducing impacts and irreversible and irretrievable commitment of resources and discloses any significant and unavoidable adverse impacts.

Chapter 7, "Report Preparers": This chapter identifies the preparers of the document.

Chapter 8, "References": This chapter identifies the organizations and persons consulted during preparation of this Draft SEIR and the documents and individuals used as sources for the analysis.

1.9 STANDARD TERMINOLOGY

This Draft SEIR uses the following standard terminology:

- ▶ “No impact” means no change from existing conditions (no mitigation is needed).
- ▶ “Less-than-significant impact” means no substantial adverse change in the physical environment (no mitigation is needed).
- ▶ “Potentially significant impact” means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).
- ▶ “Significant impact” means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).
- ▶ “Significant and unavoidable impact” means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

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2 PROJECT DESCRIPTION

The proposed City of Elk Grove 2021-2029 Housing Element Update and Safety Element Update (Housing Element and Safety Element Update, or Project) would amend the City of Elk Grove General Plan (General Plan) to update the Housing Element, amend the General Plan land use designations and zoning designations for up to 43 sites in the City, and amend the General Plan to update the Safety Element.

2.1 PROJECT BACKGROUND AND HISTORY

State law requires each city and county to adopt a general plan containing at least eight elements including a housing element. The housing element, required to be updated regularly, is subject to detailed statutory requirements and mandatory review by the State Department of Housing and Community Development (HCD). This Housing Element Update is an update of the City's previous housing element, which was adopted by the Elk Grove City Council on February 12, 2014 and certified by HCD on March 21, 2014.

Housing element law requires local governments to plan adequately to accommodate their existing and projected housing needs, including their share of the regional housing need. Housing element law is the State's primary market-based strategy to increase housing supply, choice, and affordability. The law recognizes that in order for the private for-profit and non-profit sectors to adequately address housing needs and demand, local governments must adopt land use plans and regulatory requirements that provide opportunities for, and do not unduly constrain, housing development.

The timing for jurisdictions to update their housing elements is based on the update schedule of the regional transportation plans (RTPs) by the federally designated metropolitan planning organizations (MPOs). The City of Elk Grove is a member of the Sacramento Area Council of Governments (SACOG), which is the designated MPO for the region. SACOG is required to update its Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) every four years, which puts all member jurisdictions on a schedule to update their housing elements every eight years. The SACOG board adopted the 2020 MTP/SCS and accompanying documents at a special board meeting on November 18, 2019. For SACOG's member jurisdictions, the 6th Cycle Housing Element planning period extends from May 15, 2021 through May 15, 2029.

Approved in 2019, Assembly Bill (AB) 747 (Levine) requires jurisdictions to review and update as necessary their safety element to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. This information must be included by January 1, 2022, or upon approval of the next update to the Local Hazard Mitigation Plan. Also approved in 2019, Senate Bill (SB) 99 (Nielsen) requires jurisdictions, upon the next revision of the housing element on or after January 1, 2020, to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least 2 emergency evacuation routes. The proposed Safety Element Update addresses the requirements of these bills.

2.2 PROJECT OBJECTIVES

The purpose of the Housing Element Update is to address the housing needs of the City and to meet the requirements of State law. The Housing Element Update includes the following goals:

GOAL H-1: Adequate sites to accommodate the City's housing needs.

GOAL H-2: Adequate housing stock to meet the needs of extremely low-, very low-, low-, and moderate-income households and special-needs groups.

GOAL H-3: Development regulations that remove constraints to the maintenance, improvement, and development of housing.

GOAL H-4: Maintenance and improvement of affordable housing conditions.

GOAL H-5: Housing opportunities for all persons, regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.

GOAL H-6: Preservation of assisted (subsidized) housing developments for lower-income households.

The purpose of the Safety Element Update is to meet the requirements of AB 747 (Levine) and SB 99 (Nielsen). AB 747 requires jurisdictions to review and update as necessary their safety element to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. SB 99 requires jurisdictions to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least 2 emergency evacuation routes. The Safety Element Update includes revisions to Goal SAF-1: A Safe Community.

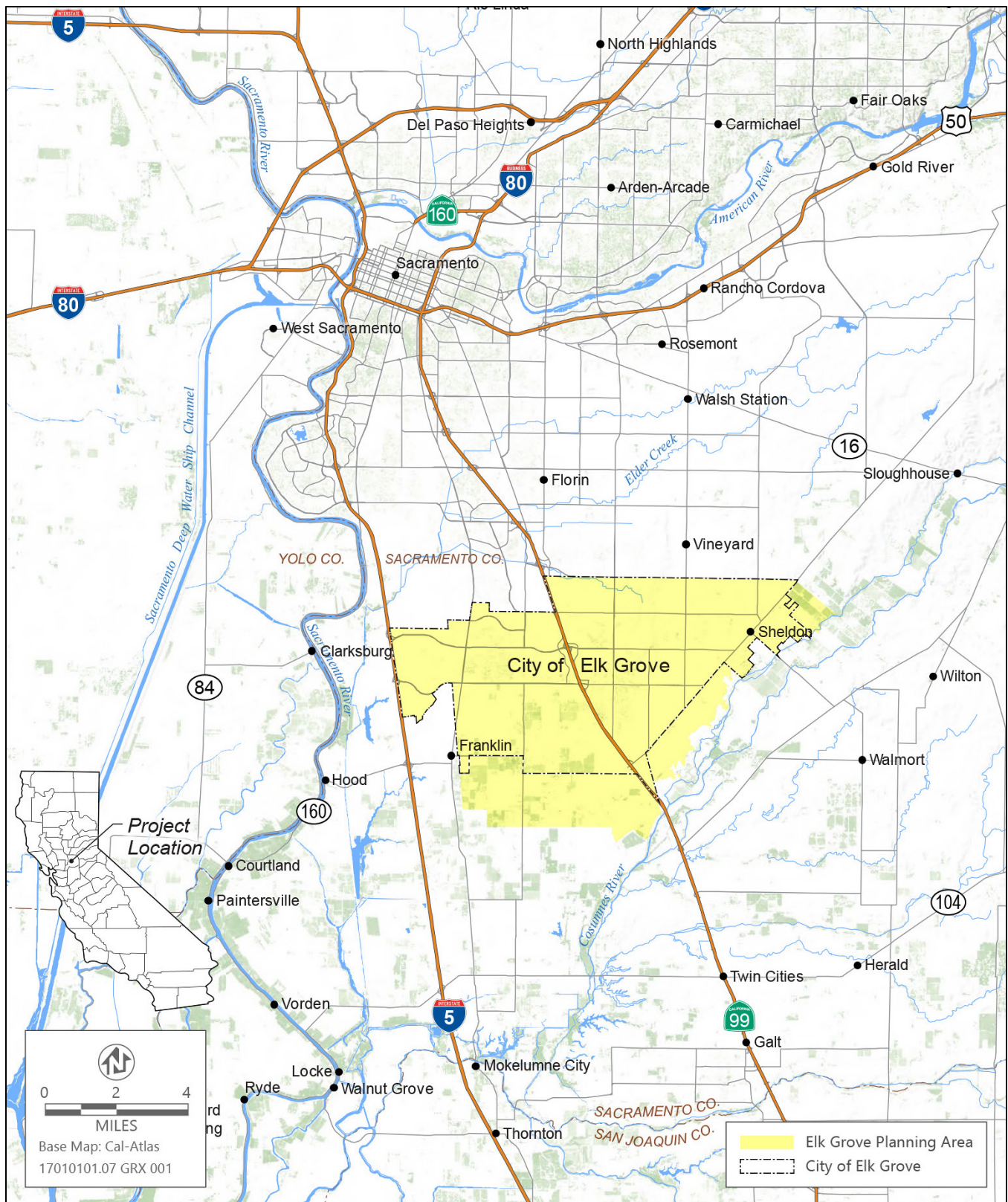
2.3 PROJECT LOCATION

The City is located in Sacramento County and consists of approximately 42 square miles within its boundary (see Figure 2-1). Land uses are regulated under the City General Plan, which was comprehensively updated in 2019. The City General Plan established a Planning Area (approximately 31,238 acres) which includes all land within the current City limits as well as lands outside the City limits. Existing land uses in the City consist of residential at varying densities, commercial, office, industrial, park, and open space. Beyond the City limits, the Planning Area primarily consists of agricultural lands and rural residential uses. Nearby natural open space and habitat areas include the Stone Lakes National Wildlife Refuge and the Sacramento River to the west, the Cosumnes River Preserve to the south, and the Sacramento Regional County Sanitation District (Regional San) bufferlands to the northwest. Major roadway access to the City is provided by Interstate 5 (I-5) and State Route 99 (SR 99).

2.4 PROJECT CHARACTERISTICS

As identified above, the General Plan was comprehensively updated in 2019. The 2019 update incorporated the 2013–2021 Housing Element into General Plan Chapter 4, “Urban and Rural Development,” and its provisions of sufficient land, with appropriate use designations, for the construction of the housing units that the City must accommodate according to the Regional Housing Needs Allocation (RHNA) by 2021 (7,401 housing units). The purpose of the 2021–2029 Housing Element Update is to establish parameters for future residential development and provide opportunities for purposeful expansion that are aligned with community desires, as well as regional growth objectives and State law. The proposed Housing Element Update is compliant with Government Code Section 65583, which identifies the requirements for General Plan Housing Element sections. In summary, Government Code Section 65583 requires that the Housing Element identify and analyze existing and projected housing needs, as well as establish goals, policies, and actions to address these housing needs, including adequate provisioning of affordable and special-needs (e.g., agricultural workers, homeless people, seniors, single-parent households, large families, and persons with disabilities) housing.

The General Plan also included Chapter 8, “Services, Health, and Safety,” which includes goals and policies related to the following topics: Disaster and Emergency Risk Reduction (ER); Disaster and Emergency Response and Public Safety (SAF); Urban Infrastructure (INF); Community Infrastructure and Facilities (CIF); Infrastructure Financing and Phasing (IFP); Community Health (HTH); Community Services (CS); and Noise (N). The Project includes revisions to the Safety Element of the General Plan. These changes are required by AB 747 and SB 99 and incorporate emergency access route information (context information with no new policies) and additional policies on community resiliency.



Source: Ascent 2019

Figure 2-1 Regional Location

2.4.1 Housing Element Update

The Housing Element Update addresses any changes that have occurred since adoption of the current (2013-2021) Housing Element. These changes include, among others, updated demographic information, housing needs data, and analysis of the availability of housing sites. The Housing Element map of available housing sites would be updated to identify sites that could accommodate the City's RHNA for the 2021–2029 planning period. The Project would also amend the General Plan land use designations and rezone sites in the City to accommodate the changes specified in the Housing Element Update.

The Housing Element includes the following components, consistent with the requirement of Government Code Section 65583:

- ▶ A review of the previous element's goals, policies, programs, and objectives to ascertain the effectiveness of each of these components, as well as the overall effectiveness of the Housing Element.
- ▶ An assessment of housing needs and an inventory of resources and constraints related to the meeting of these needs.
- ▶ An analysis and program for preserving assisted housing developments.
- ▶ A statement of community goals, quantified objectives, and policies relative to the preservation, improvement, and development of housing.
- ▶ A program which sets forth a schedule of actions that the City is undertaking or intends to undertake, in implementing the policies set forth in the Housing Element to identify adequate sites to accommodate the housing needs of all economic segments of the community. The program must do all of the following:
 - Identify actions that will be taken to make adequate sites available to accommodate the City's share of the regional housing need, if the need could not be accommodated by the existing inventory of residential sites.
 - Assist in the development of adequate housing to meet the needs of extremely low, very low, low, and moderate income households.
 - Address and, where appropriate and legally possible, remove governmental and nongovernmental constraints to the maintenance, improvement, and development of housing, including housing for all income levels and housing for persons with disabilities.
 - Conserve and improve the condition of the existing affordable housing stock, which may include addressing ways to mitigate the loss of dwelling units demolished by public or private action.
 - Promote and affirmatively further fair housing opportunities and promote housing throughout the City for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability, and other characteristics protected any State and federal fair housing and planning law.
 - Preserve assisted housing developments for lower income households.
 - Develop a plan that incentivizes and promotes the creation of accessory dwelling units that can be offered at affordable rent for very low, low-, or moderate-income households.
 - Include an identification of the agencies and officials responsible for the implementation of the various actions and the means by which consistency will be achieved with other general plan elements and community goals.
 - Include a diligent effort by the City to achieve public participation of all economic segments of the community in the development of the housing element, and the program shall describe this effort.
 - Include an assessment of fair housing in the City.

HOUSING ELEMENT POLICIES AND ACTIONS

The Housing Element identifies policies and actions to assist the City in meeting its housing goals. The policies and actions address six topic areas:

Provide Adequate Sites

- ▶ Policies H-1-1 through H-1-5 and Actions 1, 2, 5, and 8

Assist in Development of Affordable Housing Stock

- ▶ Policies H-2-1 through H-2-5 and Actions 1, 2, 4 through 9, and 13 through 16

Remove Government Constraints

- ▶ Policies H-3-1 through H-3-3 and Actions 1, 2, 4 through 7, 9, 13, and 21

Maintain and Improve Affordable Housing Stock

- ▶ Policies H-4-1 through H-4-3 and Actions 3, 6, 10, 17, 18, and 20

Housing Opportunities for All Persons

- ▶ Policy H-5-1 and Actions 6, 8, 9, 11 through 16, and 19

Preserve Assisted Housing

- ▶ Policy H-6-1 and Actions 8, 11, 12, 17, 18, 22, and 23

HOUSING PROGRAM

Chapter 1 of the Housing Element establishes the City's housing program, which includes goals, policies, and actions to address the City's housing needs. The City's Housing Goals are described above in the Project Objectives. The policies support achievement of the Housing Goals. The actions established in Chapter 1 are specific steps that the City will take to address its housing needs. These actions are identified below. The majority of actions in the Housing Element commit the City to continuing to encourage the provision of affordable housing and housing appropriate for special needs groups and to encourage the maintenance of existing housing.

Action 1: Housing Inventory. To the extent that there are high-density residential sites identified as accommodating the City's Regional Housing Needs Allocation (RHNA) that ultimately develop with a use other than high-density residential development, the City will ensure that it maintains adequate inventory to accommodate the RHNA, including by rezoning as necessary.

Action 2: Rezone Housing Sites. The City has a lower-income regional housing need of 4,265 units. To meet the lower-income regional housing need, the City will, concurrently with adoption, identify and rezone sites in Table 34 and site E-1 in Table 33 to accommodate at least 4,265 units, of Chapter 12.4 (Technical Appendix) to provide for sufficient capacity to meet the City's RHNA.

The City has, since 2003, required Design Review for all multifamily development. Design Review would be required for multifamily projects on these sites. Projects under 151 units are reviewed at the "staff-level" through consideration by the Zoning Administrator, while larger projects are reviewed by the Planning Commission. All sites will accommodate a minimum of 20 units per acre (or more, depending upon the minimum density of the zoning district) and at least 16 units per site, pursuant to California State Law requirements.

Action 3: Unit Replacement (New, State Law). Pursuant to California Government Code, Section 65583.2, replacement units are required for all sites identified in the site inventory when any new development (residential, mixed-use, or non-residential) occurs on a site that has been occupied by or restricted for the use of lower-income households at any time during the previous five years. Replacement requirements are set forth in Government Code Section 65915(c)(3).

This requirement applies to:

- ▶ non-vacant sites, and
- ▶ vacant sites with previous residential uses that have been vacated or demolished.

Action 4: Lot Configuration and Large Lot Development (New, Staff Recommendation). To facilitate the development of affordable housing and provide for development phases of 50 to 150 units, the City will routinely coordinate with property owners and give high priority to processing subdivision maps that include affordable housing units.

Additionally, the City will adopt incentives for development of high-density residential sites such as reducing minimum front and side yard setbacks to enhance design flexibility and create a more pedestrian-oriented environment and modifying parking standards.

Action 5: Lot Consolidation. To ensure that there is a sufficient supply of multifamily zoned land to meet the City's RHNA, the City will help facilitate lot consolidations to combine small residential lots into larger developable lots by providing information on development opportunities and incentives for lot consolidation to accommodate affordable housing units available on the City's website and discussing with interested developers. As developers/owners approach the City interested in lot consolidation for the development of affordable housing, the City will offer the following incentives on a project-by-project basis:

- ▶ allow affordable projects to exceed the maximum height limits,
- ▶ lessen set-backs, and/or
- ▶ reduce parking requirements.

The City will also consider offsetting fees (when financially feasible) and concurrent/fast tracking of project application reviews to developers who provide affordable housing.

Action 6: Zoning for Missing Middle Housing Types (New, Missing Middle Study). The City shall review and amend the Zoning Code and applicable design guidelines to encourage and promote a mix of dwelling types and sizes, specifically missing middle-density housing types (e.g., duplexes, triplexes, fourplexes, courtyard buildings) to create housing for middle- and moderate-income households.

Action 7: Development Streamlining (New, State Law). The City will establish a written policy or procedure and other guidance, as appropriate, to specify the Senate Bill (SB) 35 streamlining approval process and standards for eligible projects, as set forth under California Government Code, Section 65913.4.

Action 8: Financial Assistance. Support affordable housing development through provision of direct assistance from the Affordable Housing Fund and/or other City-controlled housing funding sources and, as needed, facilitate developers' applications for State and Federal affordable housing funding. City assistance could be provided in the form of land, in line with the City's strategic land acquisition program, or in the form of loans or grants for specific projects.

Action 9: Fee Waivers. When feasible, continue to provide deferrals or exemptions from select fees to all affordable housing projects and participate in the Sacramento Regional County Sanitation District's fee waiver and deferral program to reduce impact fees for affordable housing development.

Action 10: Parking Study (New, Staff Recommendation). Conduct a parking study to determine parking needs for senior housing and affordable housing projects. Based on results, continue to allow flexibility in development standards, such as parking reductions for senior projects, and by allowing development incorporating universal design measures.

Action 11: Homeless Needs Assessment. Continue to contribute funding to Elk Grove Homeless Assistance Resource Team (HART), Sacramento Self Help Housing, and other local and regional entities and work closely with these groups to assess the needs of people experiencing homelessness and develop plans to address homelessness at a regional level. The City will annually meet with local service providers and regional agencies (as applicable) to assess the needs regarding homelessness in the City and region.

Action 12: Developmental Disability Services. Work with the Alta California Regional Center to implement an outreach program that informs families within the City about housing and services available for persons with developmental disabilities. The program could include the development of an in-formational brochure, including information on services on the City's website, and/or providing housing-related training for individuals/families through workshops.

Action 13: Low-Barrier Navigation Centers (New, State Law). Amend the City's zoning regulations to add low-barrier entry practices to the City's Navigation Housing use and permit them by right in areas zoned for mixed use and nonresidential zones permitting multifamily uses, if the center meets certain statutory requirements. See Government Code section 65662. Low-barrier practices may include, but are not limited to:

- ▶ permitting the presence of partners if it is not a population-specific site,
- ▶ allowing pets,
- ▶ providing space for the storage of possessions, and
- ▶ providing privacy such as partitions around beds or private rooms.

Action 14: Supportive Housing (New, State Law). Amend the zoning code to allow for the approval of 100-percent affordable developments that include a percentage of supportive housing units, either 25 percent or 12 units, whichever is greater, to be allowed without a conditional use permit or other discretionary review in all zoning districts where multifamily and mixed-use development is permitted.

Action 15: Affordable Housing Database. Continue to update the affordable housing unit database and to provide information regarding affordable housing opportunities, both through direct response to inquiries and making information available on the City's website.

Action 16: Development Incentives for Low Income Households and Special-Needs Groups. Continue to provide regulatory incentives for the development of units affordable to extremely low-, very low-, and low-income households, including second dwelling units, senior housing, infill projects, mixed-use and multifamily units, and housing for special-needs groups, including agricultural employees, persons with disabilities (including developmental disabilities), and individuals and families in need of emergency/transitional housing. The City will take subsequent action, as appropriate, to make the development of such units more financially feasible including providing financial incentives, such as reducing, waiving, and/or deferring fees, where feasible, offering fast track/priority processing, density bonuses, and flexibility in development standards.

Additionally, the City will amend the Zoning Code to comply with State Density Bonus Law.

Action 17: Rehabilitation Programs. Continue to operate housing repair and/or rehabilitation programs that assist lower-income households occupying housing in need of repair, including the Minor Home Repair Program, which offers forgivable loans to low-income homeowners whose homes have one or more health and safety hazards. Provide information on available housing repair programs to homeowners.

Action 18: Utility Assistance. Continue to refer individuals interested in utility assistance to the appropriate local energy provider, including the Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric (PG&E), both of which offer programs to assist with utility costs, and to nonprofit organizations that may offer utility assistance.

The City will also provide assistance with paying past-due utility bills (electric, gas, and water) to low-income households that are at risk of experiencing utility shutoff due to non-payment. Temporarily increase the level of funding available to serve households experiencing a COVID-related loss of income.

Action 19: Affirmatively Further Fair Housing (New, State Law). Implement the regional Analysis of Impediments to Fair Housing Choice (AI), prepared in 2019, to address disparities in housing needs and in access to opportunity for all persons regardless of race, color, religion, sex, national origin, familial status, disability gender, gender identify, gender expression, sexual orientation, marital status, ancestry, veteran or military status, source of income, and genetic information as protected categories by the California Fair Employment and Housing Act (Part 2.8 [commencing with Section 12900] of Division 3 of Title 2), Section 65008, and any other state and federal fair housing and planning law.

The City identified barriers to fair housing through the Fair Housing Assessment (see Chapter 12.4, Section 4, Housing Needs Assessment). Actions the City may take to address the identified barriers, and foster an inclusive community, include:

- ▶ Develop a targeted program to connect lower-income residents with affordable homeownership and rental opportunities.
- ▶ Work with fair housing providers such as Renters Helpline on an annual basis to track fair housing complaints and identify areas of fair housing law in need of increased enforcement.
- ▶ Assess whether the current e-Tran routes and frequency meet demand and determine additional needs, if necessary.
- ▶ Where possible, improve bus stops to allow the safe deployment of wheelchair lifts and, where not possible, determine if a new stop can be added near the original that does allow life deployment.
- ▶ Providing information about fair housing choices to residents by distributing fair housing materials upon request and contracting with a fair housing rights nonprofit to provide fair housing services, including fair housing complaint intake, investigation, resolution, general housing (landlord/tenant) counseling, mediations, assistance, referrals, and resolution.
- ▶ Proactively monitoring rental housing providers for discriminatory practices and using CDBG funds for fair housing enforcement and technical assistance activities.
- ▶ Providing training to landlords and property owners on avoiding discriminatory practices based on income or other protected classes, processing reasonable accommodation re-quests, and educating them on the Housing Choice Voucher Program, including new legal requirements pursuant to SB 329.
- ▶ Meeting with other jurisdictions in the region to identify fair housing strategies and discuss whether a regional fair housing strategy would be beneficial from a cost and/or efficiency perspective.
- ▶ Using local permitting and approval processes to ensure all new multifamily construction meets the accessibility requirements of the federal and state fair housing acts.
- ▶ Increasing residential infill opportunities through changes in zoning and long-range plans. Implement zoning and development incentives, such as inclusionary zoning, in-lieu fees, and density bonuses.
- ▶ Supporting development or resale of affordable homeownership opportunities through both developers' operations and obtaining resources to support low-income homebuyers, including affirmatively marketing to under-represented homeowners and developing and funding a first-time homebuyers' program.
- ▶ Providing financial support to organizations that provide counseling, information, education, support, and/or legal advice to lower-income households, including extremely low-income households, and persons experiencing homelessness.
- ▶ Affirmatively recruiting a diverse and multilingual staff.
- ▶ Analyzing and abating environmental hazards before developing affordable housing.
- ▶ Using data to identify areas of high need and areas of high opportunity; rezoning higher-density sites in identified areas of high opportunity.
- ▶ Collaborating with the City's transit department and other transit providers in the region to develop transit lines and route schedules based on community needs.
- ▶ Providing education to the community on the importance of completing Census questionnaires.

Action 20: Monitor At-Risk Units. Maintain and update the City's affordable housing database as a mechanism to monitor and identify units at risk of losing their affordability subsidies or requirements. For complexes at risk of converting to market rate, the City may:

- ▶ Contact property owners of units at risk of converting to market-rate housing within one year of affordability expiration to discuss the City's desire to preserve complexes as affordable housing.
- ▶ Reach out to owners to see their intent on renewing affordability restrictions. In addition, the City will coordinate with owners of expiring subsidies to ensure the required notices to tenants are sent out at 3 years, 12 months, and 6 months.
- ▶ Reach out to agencies interested in purchasing and/or managing at-risk units.
- ▶ Work with tenants to provide education regarding tenant rights and conversion procedures pursuant to California law.

Action 21: Innovative Housing Options (New, Staff Recommendation). Explore innovative and alternative housing options that provide greater flexibility and affordability in the housing stock. This may include consideration for further reduction in regulatory barriers for ADUs and junior ADUs, tiny houses, inclusionary housing, microhomes and other alternative housing types as well as explore a variety of densities and housing types in all zoning districts.

Action 22: Housing Choice Voucher Acceptance. Evaluate the rate of usage of tenant-based Housing Choice Vouchers (Section 8) in affordable housing properties in which the City has a financial investment, in order to ensure that voucher holders are fairly represented. Provide education to property owners and managers at properties where voucher usage is lower than expected.

Action 23: Housing Choice Voucher Education. Implement a Housing Choice Voucher (Section 8) education program to share information about the program and available incentives with rental property owners and managers. When the waitlist for tenant-based vouchers is open, publicize the opportunity through the City's social media and/or other public information channels.

GENERAL PLAN AMENDMENT AND REZONE

The RHNA quantifies the need for housing in each region statewide and is determined by the California Department of Housing and Community Development. The Sacramento Area Council of Governments (SACOG) is responsible for allocating the RHNA to each city and county in its region, which includes Elk Grove. The SACOG Regional Housing Needs Plan for the 2021–2029 planning period was adopted in March 2020 and provides the RHNA methodology that applies to the Project. Elk Grove's total RHNA for the 2021–2029 planning period is 8,263 units, allocated to specific income groups as shown in Table 2-1.

Table 2-1 City of Elk Grove Regional Housing Needs Allocation

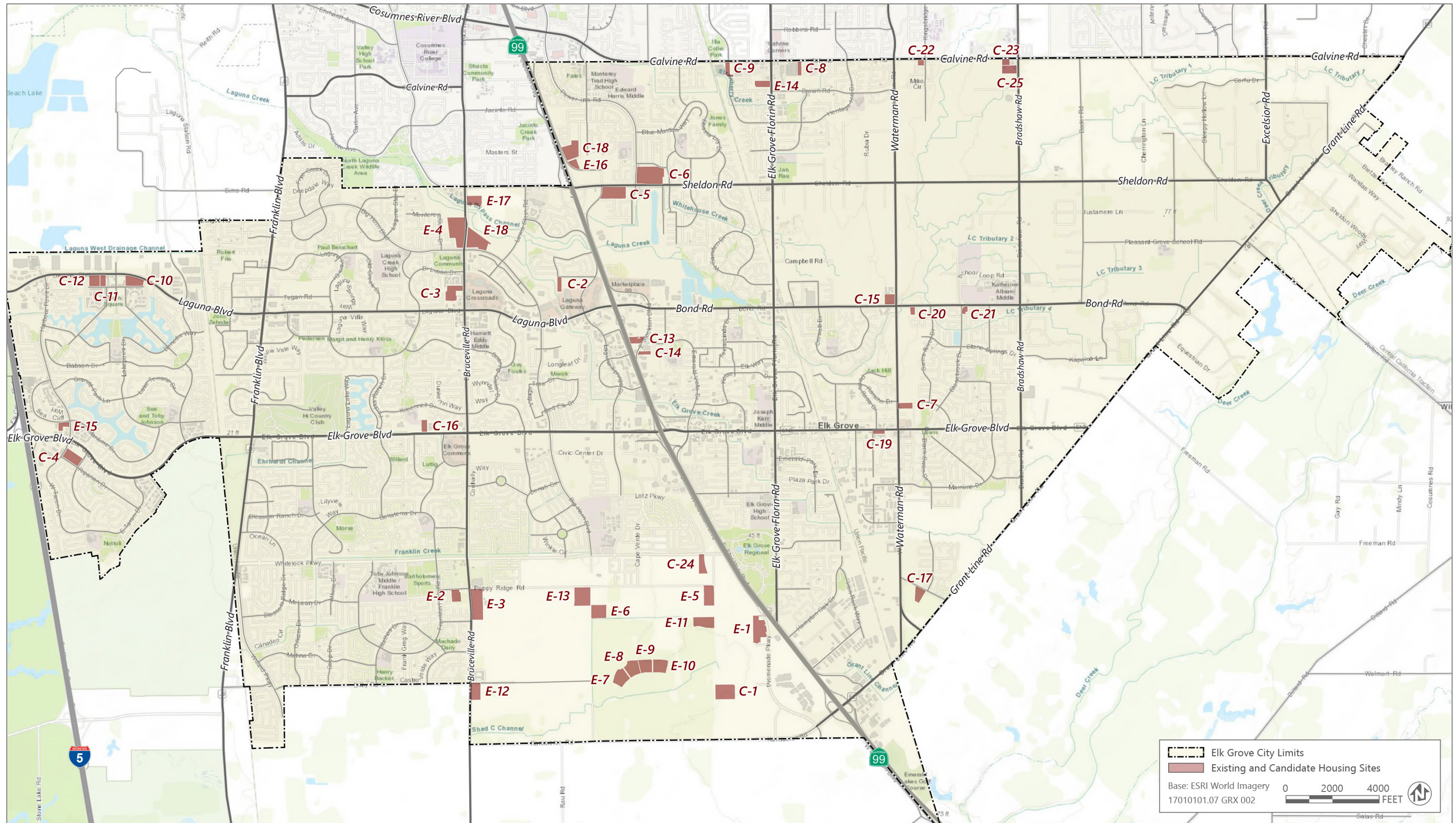
	Very Low Income Level	Low Income Level	Moderate Income Level	Above Moderate Income Level	Total RHNA Income Level
2021-2029 RHNA	2,661	1,604	1,186	2,812	8,263

Source: SACOG 2020:ES-3

The City currently has an adequate number of zoned residential sites to meet RHNA requirements for the moderate and above moderate income groups.

The City has identified 43 possible housing sites (18 existing sites and 25 new candidate sites) located within City limits that could accommodate housing to meet the RHNA very low and low income groups (see Figure 2-2). Each site's map ID, location, acreage, existing zoning, existing General Plan designation, proposed rezoning, proposed General Plan designation, and the number of dwelling units that could be developed under the proposed rezoning based upon average density are shown in Table 2-2. The 25 candidate sites, sites C-1 through C-25, would require rezoning. The City Council will select sites from this list of existing and candidate sites to be designated as meeting the RHNA requirement for low and very-low income units. All of the 43 sites, or some combination of the 43 sites, would be approved to accommodate RHNA. Those sites chosen from the candidate list would be subject to a General Plan Amendment and/or rezoning, as necessary, to meet the density obligations to qualify for listing in the RHNA. Additionally, the City is considering rezonings to some existing sites to increase the minimum density required on the site in order to increase the potential yield of these sites and reduce the overall number of sites that are listed in the RHNA.

The comprehensive scenario of approving the re-designation and rezoning of all sites is analyzed in this Draft SEIR. For existing or candidate sites where no General Plan Amendment and rezoning is proposed (e.g., Site E-2), development of these sites was considered in the 2019 General Plan EIR and no further analysis is required under this SEIR.



Source: Housing data provided by the City of Elk Grove in 2020

Figure 2-2 Existing and Candidate Sites

Table 2-2 Existing Sites and Candidate Sites for Very Low and Low Income Groups

Map ID	General Location	Acreage	Existing General Plan Designation	Existing Zoning	Proposed General Plan Designation	Proposed Rezoning	Dwelling Units
E-1	M&H Site in Lent Ranch	12.8	HDR	RD-20	HDR	RD-20	230
E-2	Quail Run	4.88	HDR	RD-25	HDR	RD-25	102
E-3	Southeast corner of Bruceville Road and Poppy Ridge Road	15.48	HDR	RD-20	HDR	RD-30	418
E-4	Northwest corner of Bruceville Road and Big Horn Boulevard	6.5	HDR	RD-25	HDR	RD-30	178
E-5	SEPA, Clark Property, Poppy Ridge at Lotz Parkway	9	HDR	SEPA-HDR (15.1-30)	HDR	SEPA-HDR (25-30)	243
E-6	SEPA, Suyanaga Property, Southeast corner of Poppy Ridge and Big Horn	8.6	HDR	SEPA-HDR (15.1-30)	HDR	SEPA-HDR (25-30)	233
E-7	SEPA, Souza Lot 1096	7.1	HDR	SEPA-HDR (15.1-30)	HDR	SEPA-HDR (15.1-30)	192
E-8	SEPA, Souza Lot 1097	7.9	HDR	SEPA-HDR (15.1-30)	HDR	SEPA-HDR (15.1-30)	198
E-9	SEPA, Souza Lot 1098	6.5	HDR	SEPA-HDR (15.1-30)	HDR	SEPA-HDR (15.1-30)	163
E-10	SEPA, Souza Lot 1098	7.2	HDR	SEPA-HDR (15.1-30)	HDR	SEPA-HDR (15.1-30)	180
E-11	SEPA, Souza Lot 1105	9.3	HDR	SEPA-HDR (15.1-30)	HDR	SEPA-HDR (15.1-30)	233
E-12	SEPA, Bruceville Meadows	8.4	HDR	SEPA-HDR (15.1-30)	HDR	SEPA-HDR (25-30)	227
E-13	Laguna Ridge, Backer Property, Southwest corner of Big Horn and Poppy Ridge	11.1	HDR	RD-25	HDR	RD-25	300
E-14	Elk Grove Florin Road at Brown Road	4.4	HDR	RD-25	HDR	RD-30	119
E-15	Harbour Point Drive and Maritime Drive	3.06	HDR	RD-25	HDR	RD-30	83
E-16	East Stockton Boulevard at Bow Street	2.9	HDR	RD-25	HDR	RD-30	78
E-17	Sheldon Farms North, Stein	5.3	HDR	RD-25	HDR	RD-30	143
E-18	Sheldon Farms South, Arsone	9	HDR	RD-25	HDR	RD-25	243
C-1	Sterling Meadows HDR Site (southeast corner of Lotz Parkway and Bilby Road)	10.68	HDR	RD-20	HDR	RD-30	289
C-2	End of Dunisch Road	2.87	RC	SC	HDR	RD-25	72
C-3	Laguna Boulevard and Bruceville Road (COBRA/Pacific Properties)	7.6	MDR	RD-15	HDR	RD-30	205
C-4	2804 Elk Grove Boulevard (Samos)	7.49	MDR	RD-15	HDR	RD-30	202
C-5	Southeast corner Sheldon Road and East Stockton Boulevard	12.3	RC	SC	HDR	RD-30	332
C-6	Northeast corner Sheldon Road and Power Inn Road	8	CC	GC	HDR	RD-30	216
C-7	Waterman Road at Rancho Drive	3.5	LDR	RD-4	HDR	RD-25	88
C-8	8994 Calvine Road	2.32	RC	RD-5	HDR	RD-25	58

Map ID	General Location	Acreage	Existing General Plan Designation	Existing Zoning	Proposed General Plan Designation	Proposed Rezoning	Dwelling Units
C-9	8770 Calvine Road	3.5	HDR	RD-20	HDR	RD-25	88
C-10	Laguna Boulevard and Haussmann Street	6.96	CC	LC	HDR	RD-30	198
C-11	Laguna Vaux	2.59	CC	LC	HDR	RD-30	70
C-12	Laguna Boulevard and Gropius Street	5.85	EC	MP	HDR	RD-30	158
C-13	9296 E Stockton Boulevard	3.81	HDR	RD-20	HDR	RD-30	103
C-14	9343 E Stockton Boulevard	1.96	EC	BP	HDR	RD-30	53
C-15	Northwest corner Bond Road and Waterman Road	4.6	CC	GC	HDR	RD-25	115
C-16	Stathos Property (Elk Grove Blvd, west of Carlton assisted care facility)	3.19	LDR	RD-5	HDR	RD-30	86
C-17	Waterman 75 (Mosher Road and Grant Line Road)	5	RC	RD-10	HDR	RD-30	135
C-18	Bow Street Northwest	10.3	LDR	RD-6	HDR	RD-30	258
C-19	Old Town, southwest corner of Elk Grove Boulevard and Webb Street	1.87	CC	OTSPA	HDR	RD-25	53
C-20	Southeast corner Bond Road and Waterman Road	1.5	RR	AR-2	HDR	RD-25	38
C-21	Bond Road and Stonebrook Drive	1.66	MDR	RD-15	HDR	RD-25	42
C-22	Calvine Road and Jordan Ranch Road	2.06	ER	RD-4	HDR	RD-25	52
C-23	Calvine Road and Bradshaw Road	2.02	CC	GC/AR-5	HDR	RD-25	21
C-24	Southwest corner Lotz Parkway and Whitelock Parkway	5	LDR	RD-5	HDR	RD-25	125
C-25	Bradshaw, just south of Calvine, behind/adjoining Eden Gardens Event Center	5.17	ER	AR-5	HDR	RD-25	129
Total		261.5 acres					6,749

E: Existing Housing Site

C: Candidate Housing Site

AR: Agriculture Residential Zone (AR-X: 1 primary dwelling unit per X acres)

RD: Residential District Zone (RD-X: dwelling units per acre)

GC: General Commercial Zone

LC: Limited Commercial Zone

SC: Shopping Center Zone

BP: Business Professional Office Zone

MP: Industrial-Office Park Zone

SEPA-HDR: Southeast Planning Area High Density Residential Zone

OTSPA: Old Town Special Planning Area Zone

As shown in Table 2-2, the proposed Housing Element Update would accommodate up to 6,749 units for the RHNA very low and low income groups, which exceeds the City's requirement of providing 4,265 units for these income groups.

Table 2-3 below identifies the potential number of units under the adopted General Plan and the maximum number of units under the proposed Housing Element Update. As shown in Table 2-3, the adopted General Plan and current zoning anticipates 4,027 units on the existing and candidate housing sites. Under the proposed Housing Element Update, up to an additional 2,722 units would be provided based upon the assumed average density. The proposed rezoning of candidate housing sites C-2, C-5, C-6, C-10, C-11, C-12, C-14, C-15, C-17, C-19, and C-23 would result in the loss of planned nonresidential uses and approximately 1,419 jobs under buildout of the General Plan.

Table 2-3 Existing and Proposed Development Potential under the General Plan

Map ID	Potential Dwelling Units Adopted General Plan Land Use Designations	Potential Dwelling Units Housing Element Update	Development Potential Change From Adopted General Plan
E-1	230	230	0
E-2	102	102	0
E-3	310	418	108
E-4	163	178	15
E-5	225	243	18
E-6	215	233	18
E-7	178	192	14
E-8	198	198	0
E-9	163	163	0
E-10	180	180	0
E-11	233	233	0
E-12	210	227	17
E-13	300	300	0
E-14	110	119	9
E-15	77	83	6
E-16	73	78	5
E-17	133	143	10
E-18	225	243	18
C-1	192	289	97
C-2	0	72	72
C-3	91	205	114
C-4	90	202	112
C-5	0	332	332
C-6	0	216	216
C-7	14	88	74
C-8	12	58	46
C-9	63	88	25
C-10	0	198	198
C-11	0	70	70
C-12	0	158	158
C-13	67	103	36
C-14	0	53	53

Map ID	Potential Dwelling Units Adopted General Plan Land Use Designations	Potential Dwelling Units Housing Element Update	Development Potential Change From Adopted General Plan
C-15	0	115	115
C-16	16	86	70
C-17	40	135	95
C-18	62	258	196
C-19	0	53	53
C-20	1	38	37
C-21	20	42	22
C-22	8	52	44
C-23	0	21	21
C-24	25	125	100
C-25	1	129	128
Total	4,027	6,749	2,722

2.4.2 Safety Element Update

The Project also includes an update to the Safety Element for consistency with AB 747 (Levine) and SB 99 (Nielsen). The revisions incorporate information on existing residential developments in hazard areas, along with a new policy related to evacuation route planning in new developments.

The following portions of Chapter 8: Services, Health, and Safety, are proposed for amendment. New text is shown in *italics*, deleted text is shown in ~~strikeout~~.

GOALS AND POLICIES: DISASTER AND EMERGENCY RESPONSE AND PUBLIC SAFETY (SAF)

Goal SAF-1: A Safe Community

Police Services

Police protection in Elk Grove is provided by the Elk Grove Police Department (EGPD), which operates from its headquarters on Laguna Palms Way and has four divisions: Field Services (Patrol), Investigative Services, Support Services, and Administrative Services. The EGPD is a public safety agency charged with the preservation of constitutional rights, maintenance of civil order, assurance of public health and safety, detection and prevention of crime, enforcement of federal and State law, and administration of the laws, Elk Grove Municipal Code, and regulations of the City.

Fire and Emergency Medical Services

The CCSD provides fire protection, fire prevention, and emergency medical and rescue services to the cities of Elk Grove and Galt, as well as unincorporated areas in the region covering over 157 square miles. The CCSD Fire Department operates out of eight fire stations: six in Elk Grove and two in Galt, and a state-of-the-art training facility. The fire stations are currently located in Elk Grove, East Franklin, East Elk Grove, Laguna Creek, Lakeside, the Elk Grove-West Vineyard area and Galt.

Fire Protection

The Cosumnes Fire Department maintains an extensive system of fire stations throughout Elk Grove and a portion of the Planning Area outside the City limits. Because the City of Elk Grove does not furnish fire protection services, this

General Plan does not contain policies or action items that provide for the construction or operation of fire stations or related facilities; these facilities will be constructed pursuant to the Cosumnes Fire Department's Master Plan. This chapter instead focuses on providing for land uses to accommodate fire and other emergency facilities outside potential hazard areas, and policies and action items aimed at coordinating the City's efforts with those of the Cosumnes Fire Department to ensure an adequate level of fire protection is available at all times in Elk Grove. The established response time goal for the department is the first unit should arrive on the scene within seven minutes of the receipt of the 911 call in the dispatch center, 90 percent of the time.

Emergency Medical Services

The Cosumnes Fire Department also provides *Emergency Medical Services (EMS)* ~~EMS~~ to Elk Grove. The department includes emergency medical technicians and paramedics, and operates full-time ambulance companies serving both Elk Grove and Galt.

Automatic and Mutual Aid Agreements

The CCSD is the primary fire protection and emergency medical response service within the SOIA Area. Sacramento Metropolitan Fire District (SMFD), the City of Sacramento Fire Department (SFD), and the CCSD share common jurisdictional boundaries and participate in a regional automatic/mutual aid agreement. The CCSD Fire Department also has a mutual aid agreement with the surrounding volunteer fire districts in southern Sacramento County, including Wilton, Courtland, Walnut Grove, and Herald Fire Districts. As a result of the existing automatic and mutual aid agreements the closest unit available is dispatched to an incident and fire district boundaries are not an issue when an incident occurs.

Evacuation Routes

In the event of a major natural disaster or significant incident (e.g., plane crash, explosion), it may be necessary to evacuate portions of the City. The extent of the evacuation and route(s) that may be utilized depend upon the nature of the incident, anticipated extent of the impact, and available routes. Generally, the arterial and collector roadway network illustrated in Figure 3-7 (Elk Grove Roadway Classifications) will be utilized as evacuation routes.

In order to ensure that viable evacuation routes are available in residential areas of the City, the City requires (through Municipal Code Chapter 22.110) that new subdivision have adequate public access for safety and emergency egress. Specifically, for subdivisions of forty units or more, two points of public access are required unless otherwise approved by the City Engineer through a design exception. Additional design requirements in the Fire Code may also be applicable.

Pursuant to Government Code Section 65302(g)(5), the City has conducted an analysis of existing residential developments within hazard areas in the City. For purposes of this analysis, a hazard area includes both the 100-year and 200-year floodplain (see Figures 8-1 and 8-2), dam inundation areas (see Figure 8-3), fire hazard areas (see Figure 8-5), and risk probability areas (see Tables 8-1 and 8-2). Residential developments that were reviewed in the analysis focused on those that did not have a minimum of two points of access to a arterial or collector roadway as provided in EGMC Chapter 22.110. The results of this analysis are provided in Figure 8-6 [presented as Figure 2-3 in this SEIR], Residential Development in Hazards Areas with Limited Access. The analysis shows three unique conditions as follows:

- ▶ *One site in Laguna West has a single primary point of access to Harbour Point Drive, though there is a minor connection to an adjoining subdivision adjoining the Harbour Point Drive access.*
- ▶ *Seven subdivisions in the Lakeside area of Laguna West near Elk Grove Boulevard. These are gated subdivisions. No secondary access is provided to these subdivisions, including emergency vehicle access.*
- ▶ *Two sites on the east side are subdivisions with extremely long cul-de-sacs or private drives with multiple residences, or with the potential for further subdivision. One site is located in the Rural Area and another is adjacent to the Rural Area.*

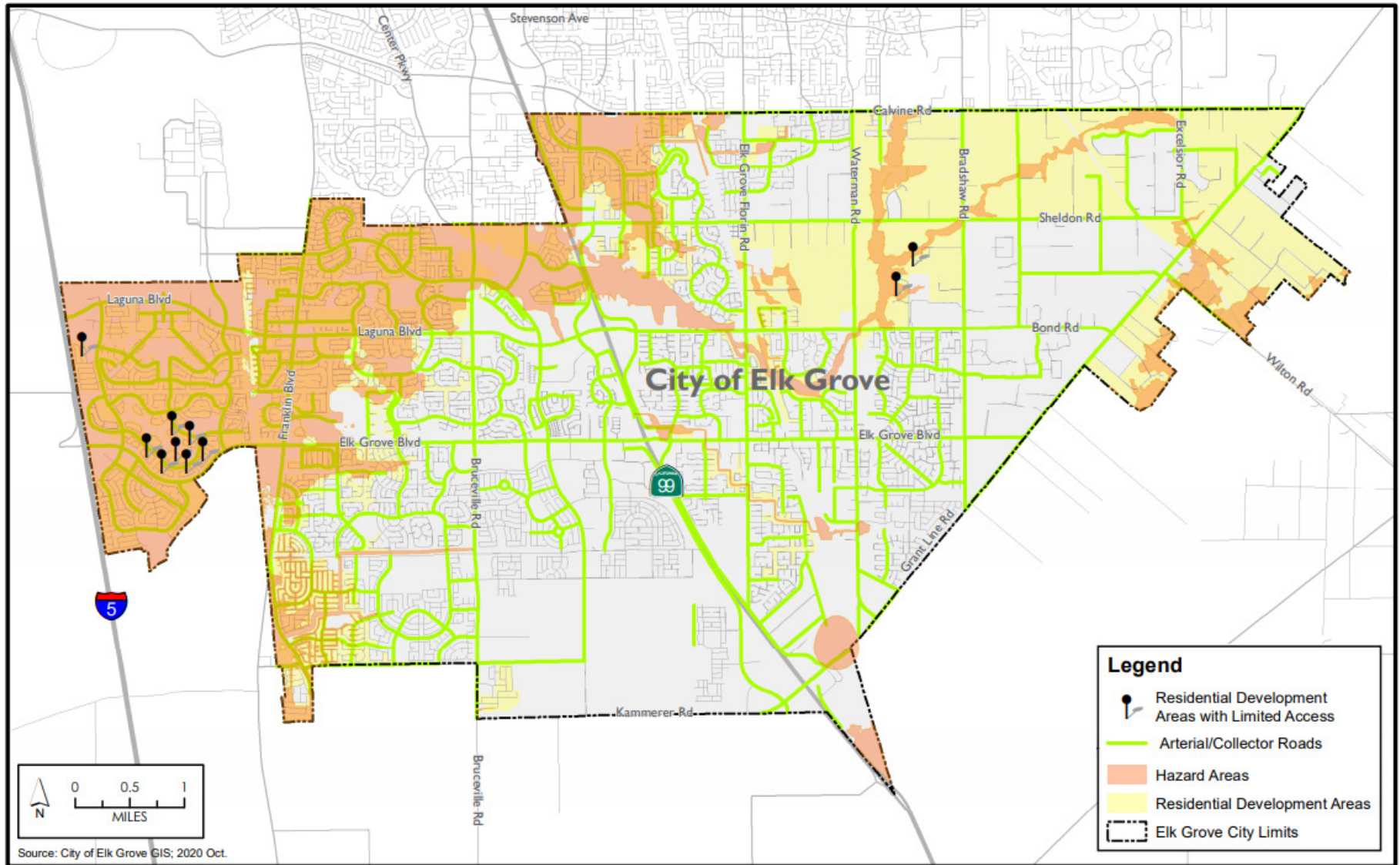


Figure 2-3 Residential Development in Hazards Areas with Limited Access

Policies: Police Services

- ▶ **Policy SAF-1-1:** Regularly monitor and review the level of police staffing provided in Elk Grove and ensure that sufficient staffing and resources are available to serve local needs.
- ▶ **Policy SAF-1-2:** Encourage the use of Crime Prevention Through Environmental Design (CPTED) principles in the design of projects and buildings, as well as parks and trails.

Policies: Fire Protection and Emergency Medical Services

- ▶ **Policy SAF-1-3:** Coordinate with the CCSD Fire Department to ensure that new station siting and resources are available to serve local needs. Policies: Emergency Response Services
- ▶ **Policy SAF-1-4:** Expand emergency response services as needed due to community growth.
- ▶ **Policy SAF-1-5:** Address traffic congestion in areas that have been identified as being detrimental to achieving targeted response times.

Policies: Evacuation Routes

A properly planned and implemented roadway system will facilitate the efficient movement of police and firefighting equipment and the safe evacuation of residents. Please refer to Chapter 6: Mobility, for policies related to the City's overall circulation system.

- ▶ **Policy SAF-1-6:** *Require adequate emergency access for new development projects.*

2.5 PROJECT APPROVALS

If approved, the Project would:

- ▶ Amend the City's General Plan to update the current Housing Element and to revise the Land Use Map for any or all of the sites as described in Table 2-1;
- ▶ Amend Elk Grove Municipal Code (EGMC) Title 23, Zoning Code, to revise the Zoning Map to rezone any or all of the sites as described in Table 2-1; and
- ▶ Amend the City's General Plan to update the Safety Element policy provisions.

After adoption, the updated Housing Element will be submitted to HCD for certification.

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3 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This chapter is organized by environmental resource topic. Each resource topic is addressed in a separate section that presents an integrated discussion of the existing conditions (including environmental setting and regulatory setting) associated with the resource, potential environmental effects of the Project on the resource, and mitigation measures to reduce significant effects.

Cumulative and growth-inducing impacts are discussed in Chapter 4, "Cumulative Impacts," and Chapter 6, "Other CEQA-Mandated Sections," respectively.

APPROACH TO THE ENVIRONMENTAL ANALYSIS

This draft subsequent environmental impact report (Draft SEIR) evaluates the environmental impacts of the proposed City of Elk Grove 2021-2029 Housing Element Update and Safety Element Update (Housing Element and Safety Element Update or Project). It has been prepared under the direction of the City of Elk Grove (City) in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000 et seq.).

Sections 3.1 through 3.14 of this Draft SEIR present a discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the Project, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of the environmental topics identified for review in the notice of preparation (NOP) prepared for the project (see Appendix A of this Draft SEIR). Chapter 4 of this Draft SEIR, "Cumulative Impacts," presents an analysis of the Project's impacts considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. Chapter 5, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the Project, as required by Section 15126.6 of the State CEQA Guidelines. Chapter 6, "Other CEQA Sections," includes an analysis of the Project's growth inducing impacts, as required by Section 21100(b)(5) of CEQA.

The remainder of this chapter addresses the following resource topics:

- ▶ Section 3.1, "Aesthetics";
- ▶ Section 3.2, "Air Quality";
- ▶ Section 3.3, "Archaeological, Historical, and Tribal Cultural Resources";
- ▶ Section 3.4, "Biological Resources";
- ▶ Section 3.5, "Energy";
- ▶ Section 3.6, "Geology and Soils";
- ▶ Section 3.7, "Greenhouse Gas Emissions and Climate Change";
- ▶ Section 3.8, "Hazards and Hazardous Materials";
- ▶ Section 3.9, "Hydrology and Water Quality";
- ▶ Section 3.10, "Land Use, Planning, Population, and Housing";
- ▶ Section 3.11, "Noise and Vibration";
- ▶ Section 3.12, "Public Services";

- ▶ Section 3.13, "Transportation"; and
- ▶ Section 3.14, "Utilities and Service Systems."

Sections 3.1 through 3.14 of this Draft SEIR each include the following components.

Regulatory Setting: This subsection presents information on the laws, regulations, plans, and policies relevant to each resource topic, including federal, State, regional, and City regulations that address potentially adverse environmental impacts.

Environmental Setting: This subsection describes existing environmental conditions at the Project site and in the surrounding area, in accordance with the State CEQA Guidelines (CCR Section 15125). This setting generally serves as the baseline against which environmental impacts are evaluated. The NOP for the Project was issued on June 19, 2020. Typically, and in accordance with State CEQA Guidelines Section 15125, the date on which the NOP is issued is considered appropriate for establishing the baseline. This includes the planned development potential and policy provisions set forth in the adopted General Plan.

Environmental Impacts and Mitigation Measures: In accordance with the State CEQA Guidelines (CCR Sections 15126, 15126.2, and 15143), this section identifies the method of analysis to determine whether an impact may occur, and the thresholds of significance used to determine the level of significance of the environmental impacts for each resource topic. The thresholds of significance are based on the checklist presented in Appendix G of the most recently adopted State CEQA Guidelines (December 28, 2018), best available data, applicable regulatory standards, and local practice and standards. The level of each impact is determined by analyzing the effect of the Project on the defined baseline conditions and comparing it to the applicable significance threshold. Each impact discussion also includes a summary of the relevant impact analysis and conclusion provided in the General Plan EIR and determines whether the project would result in a new significant effect or more severe impact than what was identified in the General Plan EIR pursuant to State CEQA Guidelines 15162.

Project impacts and mitigation measures are numbered sequentially in each subsection (e.g., Impact 3.2-1, Impact 3.2-2, Impact 3.2-3, etc.). A summary impact statement precedes a more detailed discussion of each environmental impact. The discussion presents the analysis, rationale, and substantial evidence upon which conclusions are drawn regarding the level of significance of the impact.

An impact would be considered "less than significant" if it would not involve a substantial adverse change in the physical environment. An impact would be "potentially significant" or "significant" if it could or clearly would, respectively, result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation.

This SEIR identifies feasible mitigation measures that could avoid, minimize, rectify, reduce, or compensate for potentially significant or significant adverse impacts (PRC Section 21081.6[b]). Mitigation measures are not required for effects found to be less than significant. Where feasible mitigation for a significant or potentially significant impact is available, it is described in this SEIR following the impact, along with its effectiveness at addressing the impact. Each identified mitigation measure is labeled numerically to correspond with the impact it addresses. Where feasible mitigation is not sufficient to reduce an impact to a less-than-significant level, the impact is identified as significant and unavoidable. The final determination of the level of significance of each impact is presented in bold text in the impact summary and at the end of each impact discussion.

It is important to note that environmental impact analyses under CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents unless the proposed project might cause or risk exacerbating environmental hazards or conditions that already exist (CCR Section 15126.2[a]). In those specific instances, it is the project's impact on the environment and not the environment's impact on the project that compels an evaluation of how future residents or users could be affected by exacerbated conditions (*California Building Industry Association v. Bay Area Air Quality Management District* [2015] 62 Cal. 4th 369).

References: The full references associated with the parenthetical references found throughout Sections 3.1 through 3.14 can be found in Chapter 8, "References," organized by section number.

EFFECTS FOUND NOT TO BE SIGNIFICANT

CEQA allows a lead agency to limit the detail of discussion of environmental effects that are not potentially significant (PRC Section 21100, CCR Section 15128). Following research and analysis of technical studies and data, it was determined that the Project would not result in significant environmental impacts on the resources identified below. Accordingly, these resources are not addressed in later sections of this Draft SEIR.

Agriculture and Forestry Resources

No forestry resources or timberlands are in the City or its Planning Area. The EIR certified for the City's 2019 General Plan Update evaluated the potential for impacts on agricultural resources in the City's Planning Area. Because this issue was evaluated in that document and no additional agricultural impacts would occur as a result of implementing the Housing Element Update, this issue is not discussed in this Draft SEIR.

Mineral Resources

No significant mineral resources have been identified in the City. None of the candidate housing sites are used for mineral extraction, nor are any of the sites designated as an important mineral recovery site. Therefore, there would be no impact on mineral resources, and this impact is not discussed in this Draft SEIR.

Seiche, Tsunami, and Mudflow

The City's location (inland, away from any water bodies) and topography (relatively flat) ensure that there would be no impact related to seiche, tsunami, or mudflow. Therefore, this impact is not discussed in this Draft SEIR.

Wildfire

The City is not located in or near a Very High Fire Hazard Severity Zone. Therefore, there would not be a significant impact related to wildfire, and this issue is not discussed in this Draft SEIR.

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3.1 AESTHETICS

This section provides a description of existing visual conditions, meaning the physical features that make up the visible landscape in the City, and an assessment of changes to those conditions that would occur from implementation of the Housing Element and Safety Element Update (Project). The effects of the Project on the visual environment are generally defined in terms of the Project's physical characteristics and potential visibility, the extent to which the Project's presence would change the perceived visual character and quality of the environment, and the expected level of sensitivity that the viewing public may have where the Project would alter existing views. 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).

No comments pertaining to aesthetics were received in response to the notice of preparation (NOP).

3.1.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to aesthetics, light, and glare are applicable to the Project.

STATE

California Scenic Highway Program

California's Scenic Highway Program (Streets and Highways Code, Section 260 et seq) was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. There are no designated scenic highways in the City.

LOCAL

City of Elk Grove General Plan

The *City of Elk Grove General Plan* contains the following policies and actions related to aesthetics that apply to the Project. These policies are contained in Chapter 4, "Urban and Rural Development" (City of Elk Grove 2019).

- ▶ **Policy LU-1-5:** To support intensification of identified growth areas, restrict new development on properties in rural and transitional areas.
- ▶ **Policy LU-2-4:** Require new infill development projects to be compatible with the character of surrounding areas and neighborhoods, support increased transit use, promote pedestrian and bicycle mobility, and increase housing diversity.
- ▶ **Policy LU-5-1:** Ensure that new development reflects the City's desire to create a high-quality, attractive, functional, and efficient built environment.
- ▶ **Policy LU-5-3:** Reduce the unsightly appearance of overhead and aboveground utilities by requiring the undergrounding of appropriate services within the urban areas of the City.
 - **Standard LU-5-3a:** New utility facilities should be located underground to the extent possible. Facilities to be placed underground should include electrical transformers (where consistent with the guidelines of the electrical utility), water backflow preventers, and similar items.

- **Standard LU-5-3.b:** Require that existing overhead utility facilities be undergrounded as a condition of project approval. This shall include electrical service lines under 69kV. Electrical service lines of 69kV and higher are encouraged to be undergrounded.
- ▶ **Policy LU-5-4:** Require high standards of architectural and site design, and apply strong design controls for all development projects, both public and private, for the enhancement and development of community character and for the proper transition between areas with different types of land uses. Design standards shall address new construction and the reuse and remodeling of existing buildings.
- ▶ **Policy LU-6-1:** Maintain and improve the aesthetic quality and architectural diversity of the Old Town historical district.
- ▶ **Policy LU-5-8:** Require developers to provide pedestrian amenities, such as trees, lighting, recycling and refuse containers, seating, awnings, and/or art, in pedestrian areas along project frontages. Where appropriate, install pedestrian amenities in public rights-of-way.
- ▶ **Policy NR-1-8:** Encourage development clustering where it would facilitate on-site protection of woodlands, grasslands, wetlands, stream corridors, scenic areas, or other appropriate features such as active agricultural uses and historic or cultural resources under the following conditions and requirements. Except as otherwise provided, clustering shall not be allowed in the Sheldon Rural Area.
 - Urban infrastructure capacity is available for urban use. If clustering is allowed in the Rural Area, those properties shall be exempt from providing urban water and sewer connections in accordance with the policies of the Sheldon/Rural Area Community Plan (see Chapter 9).
 - On-site resource protection is appropriate and consistent with other General Plan policies.
 - The architecture and scale of development are appropriate for and consistent with the intended character of the area.
 - Development rights for the open space area are permanently dedicated and appropriate long-term management is provided for by a public agency or another appropriate entity.

The *City of Elk Grove General Plan* does not contain any policies related to shadow effects.

City of Elk Grove Zoning Code

The Elk Grove Zoning Code (Municipal Code Title 23) provides development standards that address building mass, setbacks, landscaping, lighting, and signage to achieve an aesthetically pleasing appearance. Chapter 23.56, Lighting, addresses lighting specifically, which would reduce the potential for local light and glare, as well as contribution to skyglow. Section 23.56.030 contains requirements for shielding of fixtures and levels of illumination, as well as restrictions on fixture heights and hours of illumination for multi-family and non-residential uses. Municipal Code Section 23.56.040 prohibits certain types of lighting, such as neon tubing or band lighting along building structures, searchlights, illumination of entire buildings, roof-mounted lights (except for security purposes with motion detection), and any light that interferes with a traffic signal or other necessary safety or emergency light.

City of Elk Grove Design Guidelines

The City Design Review process is established under Section 23.16.080 of the City's Municipal Code. This section and corresponding Elk Grove Design Guidelines established a design review process and guidelines for site planning, architecture, lighting, and landscaping, as well as preservation of significant natural features and compatibility with surrounding property. The City strongly encourages incorporating natural features and using landscaping to reduce the potential impacts of lighting from parking areas on both project areas and adjacent vacant land, and that landscaping be designed to maximize screening and buffering between adjacent uses. Design Review is required for development types listed below.

- ▶ single-family residential subdivision maps;
- ▶ master home plans for single-family residential subdivisions;

- ▶ multi-family residential development; and
- ▶ non-residential development (e.g., commercial, office, industrial, and public/quasi-public development).

Any future development that fell under one of the above categories would undergo Design Review and comply with any conditions of approval imposed by the City. Design Guideline chapters 3A, 3B, 4A, and 4B address the design for residential uses. These chapters identify site design, architecture, lighting, and landscaping guidance to provide a desirable urban character as well as compatibility with surrounding neighborhoods and land uses.

Additionally, the Laguna Ridge Specific Plan has supplemental design guidelines that provide details on architectural character for single family residential development. The Southeast Policy Area has its own Design Protocol and Architectural Style Guide that is independent from the Citywide Design Guidelines and provides design standards and guidelines for all forms of development (residential, commercial, office, mixed use, industrial).

3.1.2 Environmental Setting

VISUAL CHARACTER

Visual quality is defined as the overall visual impression or attractiveness of an area as determined by the landscape characteristics, including landforms, rock forms, water features, and vegetation patterns. The attributes of line, form, and color combine in various ways to create landscape characteristics whose variety, vividness, coherence, uniqueness, harmony, and pattern contribute to the overall visual quality of an area.

Sacramento County lies near the center of California's Central Valley, at the southern end of the Sacramento Valley. Views in the region are generally characterized by broad, sweeping panoramas of flat agricultural lands and open space dotted with trees, divided by numerous rivers and creeks, and populated with scattered towns and cities. To the east, the Sierra Nevada and their foothills form a background, and the Coast Range provides a backdrop on the western horizon.

Elk Grove is a suburban city set in the Sacramento Valley containing mostly flat land with no significant landforms, offering a wide view of the surrounding region. The visual character of the City generally consists of suburban development, including single- and multi-family homes set along wide meandering streets lined with sidewalks, commercial and office uses set in large retail and business centers, and smaller strip malls, parks, and public spaces, as well as roadways and other infrastructure. There are also scattered vacant parcels and open agricultural land. The western and central portions of the City are more urbanized. The eastern portions and the areas south and west of the City boundaries predominantly contain rural residential uses surrounded by agricultural land and natural grasslands, with riparian habitat areas to the southeast along the Cosumnes River. State Route (SR) 99 bisects the City, extending north to south and providing access to the primary commercial areas along Bond Road/Laguna Boulevard and Elk Grove Boulevard. Interstate 5 (I-5) also runs in a north-south direction along the City's western boundary. Elk Grove's riparian corridors bring natural areas into urbanized neighborhoods (City of Elk Grove 2018:5.1-1).

VIEWS OF THE PROJECT SITE AND SURROUNDING AREA

Housing sites E-1 and C-1 are located west of Promenade Parkway, north of Kammerer Road. The sites are undeveloped and have been graded. Site E-1 is bordered by Kyler Road to the south and Charles Morris Way to the west. The Kaiser Permanente Elk Grove Medical Offices are located to the east and a new residential development, Stonecrest at Sterling Meadows, is located to the west. Site C-1 is located southwest of Site E-1 and is bordered by Allegra Drive to the east and the future alignment of Bilby Road to the north. Agricultural land is located to the west, graded parcels to the south, and residences are currently being constructed to the east.

Housing sites E-2 and E-3 are located south of Poppy Ridge Road, with Site E-2 on the west side of Bruceville Road and Site E-3 on the east side. Site E-2 is undeveloped agricultural land with scattered trees in the southern portion of the site. Site E-2 is surrounded by single family subdivisions to the north, west, south, and an undeveloped

agricultural property to the east. Site E-3 is agricultural land, developed with a single-family residence and greenhouses in the central portion of the site. Agricultural land is located to the south and a WalMart is located north of Poppy Ridge Road.

Housing Site E-4 is located on the northwest corner of Bruceville Road and Big Horn Boulevard. The site is generally flat, with slight sloping in the area which borders Laguna Creek. The Laguna Creek corridor, which is characterized by riparian vegetation and areas of ponding, is located along the northern border of the site. There are scattered trees along the site's eastern boundary and in the northern area. Single family residential development is located to the west, multi-family development is to the north on the other side of Laguna Creek, the Barbara Morse Wackford Community and Aquatic Complex is located south across Lewis Stein Road, and undeveloped land (Site E-18) and the Laguna Creek corridor are to the east across Bruceville Road.

Housing sites E-5 and E-11 are located south of Poppy Ridge Road near its terminus with Whitelock Parkway. The sites are generally flat, undeveloped agricultural land. Undeveloped agricultural land with some scattered trees almost entirely surround these sites, although single family residential developments are located to the northwest and southeast corners. A new residential development, Stonecrest at Sterling Meadows, is located to the east of Site E-11.

Housing sites E-6 and E-13 are undeveloped parcels located south of Poppy Ridge Road at Big Horn Boulevard, with E-13 on the west side of Big Horn Road and E-6 on the east. Undeveloped agricultural land is located to the south, west, and east. Single family residential is being constructed north of Poppy Ridge Road. Elk Grove Center, a Cosumnes River College satellite campus, is located to the northeast.

Housing sites E-7, E-8, E-9, and E-10 are located north of the Shed C Channel, east of the intersection on Bilby Road and McMillan Road/Big Horn Boulevard. Undeveloped agricultural land surrounds these sites.

Housing Site E-12 is located on the southeast corner of Bilby and Bruceville roads. The site consists of a residence and ancillary farm buildings with trees in the southern portion of the site. The Seasons Apartments are located at the northeast corner of Bilby and Bruceville roads; single-family residences are located at the northwest corner. Rural residences are located to the west of Bruceville Road.

Housing Site E-14 is located in the vicinity of the intersection of Calvine and Elk Grove-Florin roads, south of Calvine Road and west of Elk Grove-Florin Road. Site E-14 is mostly undeveloped with a single-family residence and outbuildings located in the central portion of the site. Mature trees are located throughout the site. The site is adjacent to two commercial shopping centers, to the north and east, along Calvine Road. Single family residences are located to the south and west of Site E-14.

Housing Site E-15 is located east of I-5 and north of Elk Grove Boulevard in the southern portion of the Laguna West-Lakeside area. The undeveloped site is at the southwest corner of Maritime Drive and Harbor Point Drive. Rows of trees are located along various points of the parcel boundaries. Single-family residences located to the north across Maritime Drive and east of Harbor Pont Drive. Commercial uses are immediately south of the site, with additional commercial properties and office buildings south of Elk Grove Boulevard.

Housing sites E-16 and C-18 are located northeast of the Sheldon Road and SR 99 interchange, east of East Stockton Boulevard. Site E-16 is south of Bow Street and Site C-18 is north of Bow Street. Site E-16 is vacant with mature trees in the northern portion of the site and younger trees along East Stockton Boulevard; Site C-18 is mostly undeveloped with rural residential and storage buildings. Multi-family residences are located immediately east of Site C-18 and undeveloped lands and rural residential uses are located north and east of Bow Street. SR 99 is located west of East Stockton Boulevard and undeveloped land to the south and single-family residential subdivisions to the north and northeast.

Housing sites E-17 and E-18 are located north of Big Horn Boulevard and east of Bruceville Road. The sites are undeveloped, generally flat, with slight sloping in the area of the Laguna Creek corridor, which flows through between the two sites. Single family residential development is located north of Sheldon Road and south of Big Horn Boulevard. Commercial uses are located at the southeast corner of Bruceville Road and Big Horn Boulevard. Multi-family development adjoins this group of sites in two locations: at the southwest intersection of Bruceville and Sheldon Roads and east of Lewis Stein Road.

Housing Site C-2 is located at the corner of Dunisch Road and Dunisch Road. The site is developed with rural residential buildings and mature trees. Undeveloped land is located directly to the east and the Elk Grove/Laguna Creek runs west and south of the site. Existing single-family residential is located north of Dunisch Road while medical offices and commercial development is located to the south.

Housing Site C-3 is located west of Bruceville Road in the segment between Laguna Boulevard and Big Horn Boulevard. Site C-3 is undeveloped with trees bordering the site to the west and north. Multi-family development is adjacent to the north and single-family residential development to the west. Commercial restaurants and shopping are located south of the site and to the east on the far side of Bruceville Road.

Housing Site C-4 is an undeveloped parcel located in the Stonelake Village area. The parcel is bordered by Elk Grove Boulevard to the north, Waterfowl Drive to the east, Riparian Drive to the south, and West Taron Drive to the west. A gas station borders the northeast corner of the site. Single family residential uses are located to the south, east, and northeast. Commercial shopping centers are located across West Taron Drive to the west and north of Elk Grove Boulevard.

Housing Site C-5 is a collection of parcels located southeast of the intersection of East Stockton Boulevard and Sheldon Road. Site C-5 contains rural residential uses with numerous outbuildings and mature trees. Single-family residences and Lombardi Park are located to the east, undeveloped land to the west, single-family residential and commercial north of Sheldon Road, and single-family residential to the south.

Housing Site C-6 is located at the northeast corner of the intersection of Sheldon Road and Power Inn Road. Cosumnes CSD Fire Station 76 borders the southeast corner of the site. The undeveloped site is bordered by single-family residential uses to the north, east, and west. A retirement community and Shortline Lake are located south of Sheldon Road.

Housing Site C-7 is located on the east side of Waterman Road, north of Elk Grove Boulevard; the site is developed with one residence and several outbuildings and mature trees. The west side of Waterman Road is developed with the Park Lane single family home subdivision. The east side of Waterman Road, north of Cruz Court, is developed with rural residences.

Housing sites C-8 and C-9 are located south of Calvine Road in the vicinity of the intersection of Calvine and Elk Grove-Florin Roads; Site C-9 is west of Elk Grove-Florin Road and Site C-8 is east of Elk Grove Florin Road. Both sites contain rural residential uses with outbuildings and mature trees. Commercial storage uses are located to the west of each site; single-family residential uses are located to the east of Site C-8, and to the northeast and southeast of Site C-9. A few parcels of rural residential uses are directly north of Site C-8, however single-family developments surround those properties to the north and east. Commercial uses are scattered throughout the area.

Housing sites C-10, C-11, and C-12 are south of Laguna Boulevard on both sides of Laguna Main Street in the Laguna West-Lakeside area. Strip malls are located on the southeast and southwest corners of Laguna Boulevard and Laguna Main Street. These sites are undeveloped land and are generally flat with little variation in topography. The sites are mostly bordered by ornamental trees planted along the sidewalks bordering the sites. The outer periphery of these sites is adjacent to single family and multi-family development to the south, east, and west. Distribution centers and associated parking lots are located north of Laguna Boulevard.

Housing sites C-13 and C-14 are located south of Bond Road, on either side of East Stockton Boulevard. Site C-13 is an undeveloped, relatively flat parcel. The site is bordered by an SR 99 off-ramp to the west, a church to the north, East Stockton Boulevard to the west, and an under-construction hotel and a bank to the south. There is a small island of land in the northeast portion of the site that is not part of the parcel and is occupied by a cellular communications facility. Site C-14 is developed with a rural residence with outbuildings and mature trees. The site is bordered by a single-family residential subdivision to the west, an assisted living facility to the north, East Stockton Boulevard to the east, and commercial and office uses to the south.

Housing Site C-15 is an undeveloped parcel located on the northwest corner of Bond and Waterman roads. An apartment complex is located immediately north of the site; vacant land is located north and west of the apartments.

East of Waterman Road is sparsely developed with rural residences. Single-family residential uses are located south of Bond Road.

Housing Site C-16 is an undeveloped parcel located north of Elk Grove Boulevard, west of Bruceville Road. A sports club and churches are located to the west of the site, single family residential uses are adjacent the site to the north along the eastern area of the sites and undeveloped land is adjacent the northern boundary of the eastern portion of the site, and a senior living facility, an apartment complex, and a shopping center are located east of the site. Elk Grove Boulevard is located south of the site, with single family residential uses across Elk Grove Boulevard.

Housing Site C-17 is a triangularly shaped parcel located south of the intersection of Mosher Road and Rhone River Drive. This parcel is undeveloped grassland with high voltage powerlines running north to south along the western edge of the site. Undeveloped grassland is located west of the parcel, with Waterman Road beyond, and industrial uses located west of Waterman Road. Undeveloped grassland is also located west of the parcel, with Grant Line Road beyond, and agricultural uses located southeast of Grant Line Road. A single-family residential subdivision and park are located north of the site, with undeveloped land located beyond.

Housing Site C-19 is an undeveloped parcel located south of Elk Grove Boulevard, west of Waterman Road, and immediately east of Webb Street. Commercial uses are located north of Elk Grove Boulevard, with single-family residential uses located beyond. The site is bordered by an apartment complex to the south, apartments and single-family residential to the west, and an undeveloped parcel to the east with commercial uses beyond.

Housing sites C-20 and C-21 are undeveloped parcels located south of Bond Road, between Bradshaw Road and Waterman Road. The sites are primarily surrounded by single-family residences with some undeveloped parcels on the east and west sides of Waterman Road. Rural residential uses and educational facilities are located north of Bond Road.

Housing Site C-22 located at the southwest corner of Calvine Road and Jordan Ranch Road. The parcel has been improved with a barn and outbuildings at various levels of disrepair and is surrounded by a wooden fence. Single-family residential uses are located immediately east, west, and south of the site with vacant and rural residential uses beyond. North of Calvine Road, Sheldon Highschool is located to the east and a parcel containing utility structures to the west.

Housing sites C-23 and C-25 are located adjacent to the commercial development on the southwest corner of Calvine and Bradshaw roads. Site C-23 is a vacant parcel on Calvine Road, west of the commercial development; Site C-25 is a partially developed parcel on Bradshaw Road, south of the commercial development. The sites are primarily surrounded by rural residential uses; one single-family residential development is located at the northeast corner of Calvine and Bradshaw roads.

Housing Site C-24 is an undeveloped parcel south of the intersection of Whitelock Parkway and Lotz Parkway. Rural residences and agricultural land are located to the east and to the south, across Poppy Ridge Road. An undeveloped parcel is located to the west, with a recently constructed single-family residential development beyond. North of Whitelock Road is developed with single-family residential uses.

LIGHT AND GLARE CONDITIONS

Views of the night sky can be an important part of the natural environment, particularly in communities surrounded by extensive open space. Light pollution refers to all forms of unwanted light in the night sky, including glare, light trespass, skyglow, and over-lighting. The terms "glare" and "skyglow" are used in this analysis to describe the visual effects of lighting. Glare is direct exposure to bright lights. Light that is either emitted directly upward by luminaires or reflected from the ground is scattered by dust and gas molecules in the atmosphere, producing a luminous background known as skyglow.

Natural and artificial light reflect off various surfaces and can create localized occurrences of daytime and nighttime glare. Buildings and structures made with glass, metal, and polished exterior roofing materials exist throughout Elk Grove. In the General Plan Planning Area, light and glare are concentrated in the western and central portions where commercial and more densely developed residential areas are located.

SHADOWS

The evaluation of shading and shadows in this Draft SEIR is limited to daytime shadows cast by objects blocking sunlight. The angle of the sun, and hence the character of shadows, varies depending on the time of year and the time of day; however, in the Northern Hemisphere, the sun always arcs across the southern portion of the sky. During the winter, the sun is lower in the southern sky, casting longer shadows compared to other times of year. During the summer months, the sun is higher in the southern sky, resulting in shorter shadows. During the summer, the sun can be almost directly overhead at midday, resulting in almost no shadow being cast. During all seasons, as the sun rises in the east in the morning, shadows are cast to the west; at mid-day, the sun is at its highest point and shadows are their shortest and cast to the north; and as the sun sets in the west in the afternoon/evening, shadows are cast to the east. Because of the climate in the region, midday and afternoon shade in summer can be beneficial. In the winter, however, access to sunlight can be beneficial.

3.1.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This section analyzes aesthetic impacts (visual character and light and glare) that would occur from the proposed amendments to the General Plan associated with the Housing Element and Safety Element Update. The visual resource analysis is based on field surveys, existing planning documents, the visual 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 focused on whether the Project would result in alteration of the visual characteristics of the area and/or view, the scale or degree of which appears as a substantial obvious and disharmonious modification of the overall visual character of the surrounding area that was not previously considered in the General Plan EIR.

The analysis is also based on a review of relevant planning documents, including the City's current General Plan, Design Guidelines, and Zoning regulations. This information, in combination with the thresholds below, was used to determine whether implementing the Project would create adverse visual effects.

THRESHOLDS OF SIGNIFICANCE

An impact on aesthetics, light, and glare is considered significant if implementation of the Project would do any of the following:

- ▶ have a substantial adverse effect on a scenic vista;
- ▶ substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- ▶ substantially degrade the existing visual character or quality of public views of the site and its surroundings; or if the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality; and/or
- ▶ create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

ISSUES NOT DISCUSSED FURTHER

Scenic Vista

A scenic vista is considered a view of an area that has remarkable scenery or a natural or cultural resource that is indigenous to the area. The Project site is located in a developed urban setting and does not contain remarkable scenery or views of natural areas that would be considered a scenic vista. Areas may be designated as a scenic vista by jurisdictions in local and regional plans. There are currently no officially designated scenic vistas in the City of Elk Grove's Planning Area (City of Elk Grove 2018:5.1-4). There would be no impact to designated scenic vistas, and this impact is not discussed further.

State Scenic Highway

SR 160 is a State-designated scenic highway that traverses on top of levees along the Sacramento River from the Contra Costa County line to the southern city limit of the City of Sacramento. River Road meanders through the historic Delta agricultural areas and small towns along the Sacramento River. A portion of SR 160 is located 1 mile west of the current Elk Grove City limits, approximately two miles from the closest existing or candidate housing site (Caltrans 2020); therefore, the Project would have no impact on scenic resources in a designated scenic highway. This topic is not addressed further in this Draft SEIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: Potential to Substantially Degrade the Existing Visual Character or Quality of Public Views of the Project Area and Its Surroundings

The General Plan EIR determined that buildout of the City's Planning Area would cause conversion from a rural/natural character to a more urbanized character and this impact would be significant and unavoidable. Future development associated with the Housing Element Update and implementation of the Safety Element Update would result in the development of high-density residential uses and potential emergency and evacuation access improvements that would be similar in development character that was evaluated in the General Plan EIR, on parcels currently zoned for residential or commercial uses. Therefore, the Project would not result in a new or substantially more severe impacts than were addressed in the General Plan EIR. Project impacts would be **less than significant**.

Impact 5.1.2 of the General Plan EIR evaluated whether buildout of the City's Planning Area would cause conversion from a rural/natural character to a more urbanized character. This impact was determined to be significant and unavoidable with no feasible mitigation available beyond compliance with the City's proposed General Plan policies.

Implementation of the Housing Element Update would result in changes to the zoning that would accommodate increased development densities and intensities on the possible housing sites, as described in Chapter 2, "Project Description," and allow for development of the sites with multifamily development within the allowed density range. Housing sites E-1 through E-18 will retain their current zoning designations of RD-20, RD-25, and SEPA HDR (15.1-30), although some may be rezoned to allow for increased density. Housing sites C-1 through C-25 would be rezoned to RD-20, RD-25, or RD-30. Most of the candidate sites are currently zoned for low-density residential, agricultural residential, or commercial uses. Future development associated with the Housing Element Update and implementation of the Safety Element Update could result in the development of high-density residential uses and emergency access improvements on currently vacant or underutilized parcels with areas of the City that are currently and/or are planned for urban land uses.

The combination of the procedures of the City's design review process through implementation of City Municipal Code Section 23.16.080 and use of the City Design Guidelines and design provisions of the Laguna Ridge Specific Plan and the Southeast Policy Area, would address the design and location of a new development on the opportunity sites to ensure design compatibility with surrounding development and that sites characterized by natural features, specifically trees and creek corridors, would be designed to preserve and protect these features. Compliance with the City's design review process would require subsequent projects to submit site plans (including lighting and landscaping plans) and architectural details for either staff approval or the City Planning Commission approval depending on the required design review process under Section 23.16.080.

These provisions implement General Plan policies related to aesthetics (General Plan policies LU-2-4, LU-5-1, LU-5-3, LU-5-4, LU-5-8, and NR-1-8). Views of many of the sites include tree breaks along the property line, scattered trees, and clusters of trees, as previously described. Sites with existing trees, as previously described, are subject to the tree preservation and protection requirements under City Municipal Code Chapter 19.12. The housing sites and potential emergency access improvements are located in areas planned for urban development under the General Plan and are surrounded primarily by commercial, office, residential, school, and park uses, or a combination of these uses. There

is no new significant effect, and the impact is not more severe than the impact identified in the General Plan EIR. Thus, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with City Municipal Code Chapter 19.12 and Section 23.16.080.

Impact 3.1-2: Potential to Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views in the Area

The General Plan EIR determined that buildout of the City's Planning Area would create substantial new sources of light and glare and the impact would be significant and unavoidable. Future development associated with the Housing Element Update and implementation of the Safety Element Update would create nighttime lighting within the City similar to conditions anticipated for the planned urban land uses for the City under the General Plan. The Project would be subject to the City's General Plan policies, Design Guidelines, and Municipal Code requirements that address lighting and glare; in addition, lighting, including adverse effects of glare and light trespass or spillover light are considerations addressed by the City through the site plan and design review process. All future development in the General Plan Planning Area would be subject to this review process, ensuring that the effects of glare and spillover light would be addressed. Therefore, the Project would not result in a new or substantially more severe impacts than were addressed in the General Plan EIR. Project impacts would be **less than significant**.

Impact 5.1.3 of the 2018 General Plan EIR determined that implementation of the General Plan would introduce new sources of daytime glare and substantially change nighttime lighting and illumination levels in the planning area. This impact was determined to be significant and unavoidable with no feasible mitigation available beyond compliance with the City's Design Guidelines, supplemental guidelines, and proposed General Plan policies.

The proposed changes in General Plan land use designations and zoning would allow all, or a combination of, the opportunity sites to be developed with multi-family residential uses, although no specific development projects have yet been proposed. Future residential development and emergency access improvements associated with the Project would be spread throughout the City in its General Plan designated urban land use areas. The largest concentration of development proposed is located within the Southeast Policy Area; other large clusters of potential sites are located along Bruceville Road between Sheldon Road and Laguna Boulevard and along Sheldon Road between SR 99 and Elk Grove-Florin Road. Sites that are currently zoned for agricultural residential (sites C-20, C-23, and C-25) are located adjacent to areas of existing and planned urban areas (commercial and residential development).

The proposed housing sites would create nighttime lighting within the City similar to conditions anticipated for the planned urban land uses for the City under the General Plan. Consistent with the General Plan EIR, compliance with the Elk Grove Design Guidelines would minimize the Project's light and glare effects by requiring outdoor lighting fixtures to be shielded/directed downward and screened and by minimizing the use of reflective building materials. This is consistent with the lighting requirements of Zoning Code Chapter 23.56. This chapter addresses multifamily and nonresidential outdoor lighting standards. Full shielding is required for outdoor lighting to be constructed. Where the light source from an outdoor light fixture is visible beyond the property line, shielding is required to reduce glare so that the light source is not visible from within any residential dwelling unit. This would be demonstrated by subsequent projects through the submittal of site plans for design review approval under City Municipal Code Section 23.16.080. Any lighting required for potential emergency access improvements developed under the Safety Element Update would also be required to comply with these lighting requirements. There is no new significant lighting effect, and the impact is not more severe than the impact identified in the General Plan EIR. Thus, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with Municipal Code Chapter 23.56 and Section 23.16.080.

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3.2 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable air quality regulations, and an analysis of potential short-term and long-term air quality impacts that could result from implementation of the Project. The primary source of information used for this analysis is Section 5.3, "Air Quality," from the *City of Elk Grove General Plan Update Draft Environmental Impact Report* (General Plan EIR) (City of Elk Grove 2018).

The Sacramento Metropolitan Air Quality Management District (SMAQMD) submitted a comment in response to the notice of preparation (NOP). The letter included recommendations for what to evaluate in this air quality analysis. Specifically, the comment letter recommended that the Project be reviewed for consistency with applicable plans, potential cancer risk, and impacts to transit. Consistency with applicable plans is evaluated in the impact discussions in this section. Table 3.2-5 presents data regarding potential annual incremental health incidences. Effects on transit are discussed in Section 3.13, "Transportation," of this Draft SEIR.

3.2.1 Regulatory Setting

Ambient air quality in the Project area is regulated through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policy making, education, and a variety of programs. The agencies responsible for improving the air quality in the air basin in which the Project area is located are discussed below.

FEDERAL

The United States Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970 (42 United States Code Chapter 85). The most recent major amendments made by Congress were in 1990.

Safer Affordable Fuel-Efficient Vehicles Rule

On August 2, 2018, the National Highway Traffic Safety Administration and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule) (49 Code of Federal Regulations (CFR) 523, 531, 533, 536, and 537 and 40 CFR 85 and 86). This rule addresses emissions and fuel economy standards for motor vehicles and is separated in two parts as described below.

Part One, "One National Program" (84 *Federal Register* [FR] 51310), revokes a waiver granted by EPA to the State of California under Section 209 of the CAA to enforce more stringent emission standards for motor vehicles than those required by EPA for the explicit purpose of greenhouse gas (GHG) reduction and, indirectly, criteria air pollutants and ozone precursor emission reduction. This revocation became effective on November 26, 2019, restricting the ability of the California Air Resources Board (CARB) to enforce more stringent GHG emission standards for new vehicles and set zero-emission-vehicle mandates in California. CARB has estimated the vehicle tailpipe and evaporative emissions impacts on criteria air pollutants from SAFE Rule Part One and has provided off-model adjustment factors to adjust emissions output from CARB's Emission Factor (EMFAC) model.

Part Two addresses Corporate Average Fuel Economy (CAFE) standards for passenger cars and light trucks for model years 2021–2026. This rulemaking proposes new CAFE standards for model years 2022–2026 and would amend existing CAFE standards for model year 2021. The proposal would retain the model year 2020 standards (specifically, the footprint target curves for passenger cars and light trucks) through model year 2026, but comment is sought on a range of alternatives discussed throughout the proposed rule. This proposal addressing CAFE standards is being jointly developed with EPA, which is simultaneously proposing tailpipe carbon dioxide standards for the same vehicles covered by the same model years. The final SAFE Rule Part Two was released on March 31, 2020, and multiple lawsuits have been filed challenging the rulemaking.

Criteria Air Pollutants

The CAA required EPA to establish the national ambient air quality standards (NAAQS) (42 United States Code Section 7409). As shown in Table 3.2-1, EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide, respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), and lead. The primary standards protect the public health, and the secondary standards protect public welfare. The CAA also requires each state to prepare a State Implementation Plan (SIP) for attaining and maintaining the NAAQS. The federal CAA amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. Individual SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Toxic Air Contaminants/Hazardous Air Pollutants

TACs, or, in federal parlance, hazardous air pollutants (HAPs), are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. A substance that is listed as a HAP pursuant to subsection (b) of Section 112 of the CAA (42 United States Code Section 7412[b]) is considered a TAC. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects, such as cancer, birth defects, neurological damage, asthma, bronchitis, and genetic damage, or short-term acute effects, such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and noncarcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants, for which acceptable levels of exposure can be determined and for which ambient standards have been established (Table 3.2-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and, in California, CARB regulate HAPs and TACs, respectively, through statutes (i.e., 42 United States Code Section 7412[b]) and regulations that generally require the use of the maximum achievable control technology or best available control technology (BACT) for toxics to limit emissions.

Table 3.2-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS) ^{a,b}	National (NAAQS) ^c	
			Primary ^{b,d}	Secondary ^{b,e}
Ozone	1-hour	0.09 ppm (180 µg/m ³)	— ^e	Same as primary standard
	8-hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	Same as primary standard
	8-hour	9 ppm ^f (10 mg/m ³)	9 ppm (10 mg/m ³)	
Nitrogen dioxide (NO ₂)	Annual arithmetic mean	0.030 ppm (57 µg/m ³)	53 ppb (100 µg/m ³)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	—
Sulfur dioxide (SO ₂)	24-hour	0.04 ppm (105 µg/m ³)	—	—
	3-hour	—	—	0.5 ppm (1,300 µg/m ³)
	1-hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	—
Respirable particulate matter (PM ₁₀)	Annual arithmetic mean	20 µg/m ³	—	Same as primary standard
	24-hour	50 µg/m ³	150 µg/m ³	
Fine particulate matter (PM _{2.5})	Annual arithmetic mean	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
	24-hour	—	35 µg/m ³	Same as primary standard
Lead ^f	Calendar quarter	—	1.5 µg/m ³	Same as primary standard
	30-day average	1.5 µg/m ³	—	—
	Rolling 3-month average	—	0.15 µg/m ³	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m ³)	No national standards	
Sulfates	24-hour	25 µg/m ³		
Vinyl chloride ^f	24-hour	0.01 ppm (26 µg/m ³)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m³ = micrograms per cubic meter; CAAQS = California ambient air quality standards; km = kilometers; mg/m³ = milligrams per cubic meter; NAAQS = national ambient air quality standards; ppb = parts per billion; ppm = parts per million (by volume).

^a California standards for ozone, carbon monoxide, SO₂ (1- and 24-hour), NO₂, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

^b Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; "ppm" in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

^c National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM₁₀ 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. The PM_{2.5} 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

^d National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

^e National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

^f The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. This allows for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Sources: EPA 2016; CARB 2019a

STATE

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) (California Health and Safety Code Section 40910). The CCAA, which was adopted in 1988, required CARB to establish California ambient air quality standards (CAAQS) (Table 3.2-1).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the State endeavor to attain and maintain the CAAQS by the earliest date practical. It specifies that local air districts should focus particular attention on reducing the emissions from transportation and areawide emission sources, and it provides air districts with the authority to regulate indirect emission sources.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter (PM) exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

After a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

AB 617 of 2017 (California Health and Safety Code Section 39607.1) aims to help protect air quality and public health in communities around stationary sources of pollution including facilities subject to the State's cap-and-trade program for greenhouse gas (GHG) emissions. AB 617 imposes a new State-mandated local program to address non-vehicular sources (e.g., refineries, manufacturing facilities) of criteria air pollutants and TACs. AB 617 requires CARB to identify high-pollutant areas and directs air districts to focus air quality improvement efforts through adoption of community emission reduction programs within these identified areas. Currently, air districts review individual sources and impose emissions limits on emitters based on best available control technology, pollutant type, and proximity to nearby existing land uses. AB 617 addresses the cumulative and additive nature of air pollutant health effects by requiring community-wide air quality assessment and emission reduction planning.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan and other regulatory programs, it is estimated that emissions of diesel PM will be less than half of those in 2010 by 2035 (CARB

2020). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

LOCAL

Sacramento Metropolitan Air Quality Management District

Criteria Air Pollutants

SMAQMD is the primary agency responsible for planning to meet NAAQS and CAAQS in Sacramento County. SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the SIP for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the CAA requirements to attain and maintain the NAAQS for ozone. The Sacramento Region has been designated as a "moderate" 2015 8-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019 (EPA 2020a). The 2018 Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan was approved by CARB on November 16, 2017. The previous 2013 Update to the 8-Hour Ozone Attainment and Reasonable Further Progress Plan was approved and promulgated by EPA for the 1997 8-Hour Ozone Standard. EPA has not released a notice of approval and promulgation of the 2017 SIP (CARB 2017).

SMAQMD has developed a set of guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and TACs, and also make recommendations for conducting air quality analyses. After SMAQMD guidelines have been consulted and the air quality impacts of a project have been assessed, the lead agency's analysis undergoes a review by SMAQMD. SMAQMD submits comments and suggestions to the lead agency for incorporation into the environmental document.

All projects are subject to adopted SMAQMD rules and regulations in effect at the time of construction. Specific rules relevant to the construction of future development under the Project may include the following:

- ▶ **Rule 201: General Permit Requirements.** Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation. The Applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or CARB portable equipment registration.
- ▶ **Rule 202: New Source Review.** The purpose of this rule is to provide for the issuance of authorities to construct and permits to operate at new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.
- ▶ **Rule 207: Federal Operating Permit.** The purpose this rule is to establish an operating permitting system consistent with the requirements of Title V of the United States Code and pursuant to 40 FR Part 70. Stationary sources subject to the requirements of this rule are also required to comply with any other applicable federal, state, or SMAQMD orders, rules and regulations, including requirements pertaining to prevention of significant deterioration pursuant to Rule 203, requirements to obtain an authority to construct pursuant to Rule 201, or applicable requirements under SMAQMD's new source review rule in the SIP.
- ▶ **Rule 402: Nuisance.** A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.

- ▶ **Rule 403: Fugitive Dust.** The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site. Fugitive dust controls include the following:
 - Water all exposed surfaces two times daily.
 - Cover or maintain at least two feet of free board on haul trucks transporting soil, sand, or other loose material on the site.
 - Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day.
 - Limit vehicle speeds on unpaved roads to 15 miles per hour.
 - All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
 - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes.
 - Maintain all construction equipment in proper working condition according to manufacturer's specifications.
- ▶ **Rule 442: Architectural Coatings.** The purpose of this rule is to limit the emissions of volatile organic compounds from the use of architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within Sacramento County.
- ▶ **Rule 902: Asbestos.** The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos.

In addition, if modeled construction-generated emissions for a project are not reduced to levels below SMAQMD's mass emission threshold (of 85 pounds per day [lb/day] for nitrogen oxide [NO_x], 80 lb/day or 13.2 tons per year (tpy) for PM₁₀, and 82 lb/day or 15 tpy for PM_{2.5}) after the standard construction mitigation is applied, then SMAQMD requires an offsite construction mitigation fee to purchase offsite emissions reductions. Such purchases are made through SMAQMD's Heavy Duty Incentive Program, through which select owners of heavy-duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies (SMAQMD 2019).

As discussed in greater detail under the headings, "Thresholds of Significance," and "Methodology," the Thresholds of Significance have been developed in consideration of long-term regional air quality planning. Projects that are found to emit emissions in exceedance of these bright-line thresholds would generate a cumulatively considerable contribution of regional air pollution which could obstruct the region's attainment of the NAAQS and/or CAAQS, or cause a localized exceedance of these concentration-based standards within the SVAB. Conversely, projects that emit levels of air pollution below these thresholds would not affect the SVAB's ability to attain the NAAQS and/or CAAQS.

Also discussed in greater detail under the heading, "Methodology," SMAQMD has released several versions of guidance in response to the California Supreme Court Case *Sierra Club v. County of Fresno* (2018) 6 Cal.App.5th 503 (herein referred to as the Friant Ranch Decision). The Final Guidance, released in October 2020, is discussed in greater detail under the heading, "Methodology."

Toxic Air Contaminants

At the local level, air districts may adopt and enforce CARB control measures for TACs. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), and Rule 207 ("Federal Operating Permit"), all sources that possess the potential to emit TACs are required to obtain permits from SMAQMD. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including New Source Review standards and air toxics control measures. SMAQMD limits emissions and public exposure to TACs through a number of programs. SMAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. Sensitive receptors are people, or facilities that generally house people (e.g., schools, hospitals, residences), that may experience adverse effects from unhealthful concentrations of air pollutants.

Odors

Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and SMAQMD. SMAQMD's Rule 402 ("Nuisance") regulates odors.

City of Elk Grove General Plan

The following policies in the Elk Grove General Plan are relevant to the analysis of air quality effects (City of Elk Grove 2019).

- ▶ **Policy H-2-3:** Support energy-conserving programs in the production and rehabilitation of affordable housing to reduce household energy costs, improve air quality, and mitigate potential impacts of climate change in the region.
- ▶ **Policy NR-4-1:** Require all new development projects which have the potential to result in substantial air quality impacts to incorporate design, and/or operational features that result in a reduction in emissions equal to 15 percent compared to an "unmitigated baseline project." An unmitigated baseline project is a development project which is built and/or operated without the implementation of trip reduction, energy conservation, or similar features, including any such features which may be required by the Zoning Code or other applicable codes.
- ▶ **Policy NR-4-3:** Implement and support programs that reduce mobile source emissions.
- ▶ **Policy NR-4-4:** Promote pedestrian/bicycle access and circulation to encourage residents to use alternative modes of transportation in order to minimize direct and indirect emissions of air contaminants.
- ▶ **Policy NR-4-5:** Emphasize demand management strategies that seek to reduce single-occupant vehicle use in order to achieve State and federal air quality plan objectives.
- ▶ **Policy NR-4-8:** Require that development projects incorporate best management practices during construction activities to reduce emissions of criteria pollutants.
- ▶ **Policy NR-5-2:** Improve the health and sustainability of the community through improved regional air quality and reduction of greenhouse gas emissions that contribute to climate change.
- ▶ **Policy N-1-7:** The standards outlined in Table 8-4 shall not apply to transportation- and City infrastructure-related construction activities as long as construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends and federally recognized holidays. Work may occur beyond these time frames for construction safety or because of existing congestion that makes completing the work during these time frames infeasible.

City of Elk Grove Municipal Code

Municipal Code Chapter 16.07 provides permitting guidance for electric vehicle (EV) charging stations. Municipal Code Sections 16.07.200 through 16.07.500 summarize the streamlined permitting process for installation of EV charging stations, including provisions pertaining to the completion of a technical review checklist that ensures that installation of an EV charging station would not result in any adverse environmental or health effects. As stated in Municipal Code Section 16.07.400, "the intent of this chapter [is] to encourage the installation of electric vehicle charging stations by removing obstacles to permitting for charging stations so long as the action does not supersede the Building Official's authority to address higher priority, life-safety situations."

Municipal Code Section 23.58.120 requires one "EV ready" parking space for all new one family and two family dwelling units. This section also requires that 2.5 percent of parking for multifamily projects provide EV charging and an additional 2.5 percent of parking be ready for future EV charging expansion.

Municipal Code Chapter 6.32 details the City's noise standards. Municipal Code Section 6.32.100 summarizes exemptions to the City's noise standards as they pertain to construction activities. Consistent with General Plan Policy Noise Policy NO-1-7, construction activities within the proximity of sensitive receptors are limited to 7 a.m. to 7 p.m. Monday through Friday and 8 a.m. and 5 p.m. on weekends and federally recognized holidays. Section 6.32.100 states that construction activities not located near residential uses may be allowed to occur between 6 a.m. and 8 p.m. Also, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project

necessitates that work in progress be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 7 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

3.2.2 Environmental Setting

Elk Grove is located in the Sacramento Valley Air Basin (SVAB). The SVAB includes all of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba counties; the western portion of Placer County; and the eastern portion of Solano County. The ambient concentrations of air pollutants are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

CLIMATE, METEOROLOGY, AND TOPOGRAPHY

The SVAB is a relatively flat area bordered by the north Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento River–San Joaquin River Delta (Delta) from the San Francisco Bay area.

The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature. Most precipitation in the area results from air masses that move in from the Pacific Ocean, usually from the west or northwest, during the winter months. More than half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Also characteristic of SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. The highest frequency of poor air movement occurs in the fall and winter when high-pressure cells are often present over the SVAB. The lack of surface wind during these periods, combined with the reduced vertical flow caused by a decline in surface heating, reduces the influx of air and leads to the concentration of air pollutants under stable meteorological conditions. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or with temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May through October is ozone season in the SVAB. This period is characterized by poor air movement in the mornings with the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between ROG and NO_x, which result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring during approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind to shift southward and blow air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the area and contributes to the area violating the ambient air quality standards.

The local meteorology of the City and surrounding area is represented by measurements recorded at the Western Regional Climate Center Sacramento Executive Airport Station. The normal annual precipitation is approximately 17.24 inches. January temperatures range from a normal minimum of 37.8°F to a normal maximum of 53.5°F. July

temperatures range from a normal minimum of 58.2°F to a normal maximum of 92.7°F (WRCC 2016). The prevailing wind direction is from the south (WRCC 2002).

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. Ozone, PM₁₀, and PM_{2.5} are the criteria air pollutants of primary concern in this analysis due to their nonattainment status with respect to the applicable NAAQS and/or CAAQS in the SVAB. Brief descriptions of these key criteria air pollutants in the SVAB and their health effects are provided below. The attainment statuses of all criteria air pollutants with respect to the NAAQS and the CAAQS in Sacramento County are shown in Table 3.2-2.

Table 3.2-2 Attainment Status Designations for Sacramento County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (1-hour) ¹	Nonattainment (1-hour) Classification-Serious ²
	Nonattainment (8-hour) ³ Classification=Moderate	Nonattainment (8-hour) Nonattainment (8-hour)
Respirable particulate matter (PM ₁₀)	Attainment (24-hour)	Nonattainment (24-hour)
	Attainment (24-hour)	Nonattainment (Annual)
Fine particulate matter (PM _{2.5})	Nonattainment (24-hour)	(No State Standard for 24-Hour)
	Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO ₂)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO ₂) ⁴	(Attainment Pending) (1-Hour)	Attainment (1-hour)
	(Attainment Pending) (1-Hour)	Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.)	Attainment (30 day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)
Vinyl Chloride		Unclassified (24-hour)

Notes: NAAQS = national ambient air quality standards; CAAQS = California ambient air quality standards

¹ Air Quality meets federal 1-hour Ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply. SMAQMD attained the standard in 2009. SMAQMD has requested EPA recognize attainment to fulfill the requirements.

² Per Health and Safety Code Section 40921.5(c), the classification is based on 1989–1991 data, and therefore does not change.

³ 2015 Standard.

⁴ 2010 Standard.

Source: CARB 2019b

Ozone

Ground-level ozone is not emitted directly into the air but is created by chemical reactions between ROG and NO_x. This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight. Ozone at ground level is a harmful air pollutant because of its effects on people and the environment and is the main ingredient in smog (EPA 2020b).

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health effects include permeability of respiratory epithelia and possibility of

permanent lung impairment (EPA 2020b). Emissions of the ozone precursors ROG and NO_x have decreased over the past two decades because of more stringent motor vehicle standards and cleaner burning fuels (CARB 2013).

Nitrogen Dioxide

NO₂ is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO₂ are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO₂. The combined emissions of NO and NO₂ are referred to as NO_x and are reported as equivalent NO₂. Because NO₂ is formed and depleted by reactions associated with photochemical smog (ozone), the NO₂ concentration in a particular geographical area may not be representative of the local sources of NO_x emissions (EPA 2020b).

Acute health effects of exposure to NO_x includes coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis, or pulmonary edema, breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, and death. Chronic health effects include chronic bronchitis and decreased lung function (EPA 2020b).

Particulate Matter

PM₁₀ is emitted directly into the air, and includes fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by reaction of gaseous precursors (CARB 2013). PM_{2.5} includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. PM₁₀ emissions in the SVAB are dominated by emissions from area sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, farming operations, construction and demolition, and particles from residential fuel combustion. Direct emissions of PM₁₀ are projected to remain relatively constant through 2035. Direct emissions of PM_{2.5} have steadily declined in the SVAB between 2000 and 2010 and are projected to increase slightly through 2035. Emissions of PM_{2.5} in the SVAB are dominated by the same sources as emissions of PM₁₀ (CARB 2013).

Acute health effects of exposure to PM₁₀ include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases including asthma and chronic obstructive pulmonary disease, and premature death. Chronic health effects include alternations to the immune system and carcinogenesis (EPA 2020b). For PM_{2.5}, short-term exposures (up to 24-hours duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. Long-term (months to years) exposure to PM_{2.5} has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.

TOXIC AIR CONTAMINANTS

According to the 2013 Edition of the California Almanac of Emissions and Air Quality, health risks from TACs can largely be attributed to relatively few compounds, the most important being diesel PM (CARB 2013:5-2 to 5-4). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. The TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene. Diesel PM poses the greatest health risk among the 10 TACs mentioned. Overall, Statewide emissions of diesel PM are forecasted to decline by 71 percent between 2000 and 2035 (CARB 2013:3-8).

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, food packaging plants, and cannabis (SMAQMD 2016). The Sacramento Regional Wastewater Treatment Plant is located directly north of the Elk Grove Planning Area.

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. The Elk Grove Planning Area encompasses numerous sensitive receptors including, but not limited to, the schools within the Elk Grove Unified School District, Sutter Health and Kaiser hospitals and facilities (among others), and the City's residences.

3.2.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The analysis in this section is consistent with the recommendations of SMAQMD's Guide to Air Quality Assessment in Sacramento County, Chapter 9, "Program-Level Analysis of General Plans and Area Plans" (SMAQMD 2020). The analysis primarily focuses on the extent to which the Project would conflict with air quality planning efforts. The net increase in criteria air pollutant (PM₁₀ and PM_{2.5}) and ozone precursor (ROG and NO_x) emissions (i.e., pollutants for which the region is in nonattainment of ambient air quality standards) generated by the Project were estimated based on predicted vehicle miles traveled (VMT) and maximum extent housing sites proposed under the Housing Element Update that are identified in Table 2-3 of Chapter 2, "Project Description," in order to address the largest extent of potential air quality impacts.

The proposed Safety Element Update does not designate specific projects that could generate air quality emissions from construction or operation. Thus, air quality impacts associated with the implementation of the Safety Element Update are addressed qualitatively.

Construction and operational emissions were estimated based on the net change in land uses for housing between the General Plan EIR and buildout of the Project. Construction emissions account for estimated changes in acreage of on-site and off-site improvements and were estimated consistent with SMAQMD's Program-Level Analysis guidance, which directs lead agencies to estimate construction emissions using guidance contained in Chapter 3, "Construction-Generated Criteria Air Pollutant and Ozone Precursor Emissions." For this analysis, a steady rate of construction was assumed.

As indicated in Chapter 2, "Project Description," the proposed Housing Element would redesignate candidate housing sites for an additional 2,919 housing units not currently provided in the General Plan to meet the regional housing needs of the City. There is uncertainty surrounding the schedule and exact location of where development would occur, therefore, construction emissions were modeled using the assumptions that development would occur gradually over the 8-year Project period (2021–2029). The acreages and dwelling units provided by the City were utilized. Due to the programmatic nature of this analysis, CalEEMod default values for trip generation, heavy-duty equipment type, and construction phasing were used.

Both short-term construction emissions and long-term operational emissions were calculated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2, computer program. This model was developed in coordination with the South Coast Air Quality Management District and is the most current emissions model approved for use in California by various air districts, including SMAQMD. Appendix B includes outputs from the model runs for both construction and operational activity associated with future buildout conditions. With respect to operational emissions, mobile source emissions were estimated using Project-estimated annual VMT derived from the traffic study prepared for the Project (see Section 3.13, "Transportation"). Energy- and area-sourced emissions were estimated using CalEEMod default values; however, energy-related estimates were adjusted to demonstrate consistency with the 2019 California Energy Code. Project emissions were compared to anticipated air pollutant emissions associated with buildout under the General Plan as disclosed in the General Plan EIR.

Since the preparation of the General Plan EIR, the California Supreme Court issued a ruling in Friant Ranch Decision regarding an air quality analysis prepared for the Friant Ranch Development Project EIR in December 2018. The Court asserted that the air quality analysis performed for the project did not adequately explain the nature and magnitude of long-term air quality impacts from emissions of criteria pollutants and ozone precursors. The Court held that the EIR lacked "sufficient detail to enable those who did not participate in its preparation to understand and consider meaningfully the issues the proposed project raises."

The Court expressed the need to determine whether there was a connection between the significant project emissions and the human health impacts associated with such emissions. According to the Court, one pathway would be to estimate the level of ozone that would be produced from the project, measure to what extent human health would be affected, and describe where daily exceedances of the NAAQS and CAAQS would occur in an air basin. This detailed approach to modeling is founded on the assumption that such an exercise would produce estimates of meaningful accuracy.

In response to this recent court case, a discussion of the development of air quality thresholds of significance for criteria pollutants and ozone precursors and their connection to attainment of the NAAQS and CAAQS, as well as a discussion of the applicability of regional air pollution modeling is provided below.

Typically, air districts develop thresholds of significance for CEQA evaluation (summarized below) in consideration of maintaining or achieving attainment under the NAAQS and CAAQS for the geographical area they oversee (long-term regional air quality planning). These thresholds are tied to an air district in nonattainment's SIP for criteria air pollutants within a cumulative context. These SIPs are submitted to CARB and contain an inventory of existing ambient air pollutant concentrations and, if applicable, a suite of measures to reduce air pollution and a projected date of achieving attainment under the NAAQS and CAAQS. Air quality plans identify a budget that accounts for new, future sources of pollution from land use development and stationary sources. These budgets inform the development of CEQA thresholds of significance and represent an allowable level of pollution that, when emitted in volumes below such thresholds, would not conflict with an air district's long-term regional air quality planning or attainment date.

As discussed previously, the NAAQS and CAAQS represent concentrations of criteria air pollutants protective of human health and are substantiated by extensive scientific evidence. EPA and CARB recognize that ambient air quality below these concentrations would not cause adverse health impacts to exposed receptors. In connecting an air district's (e.g., SMAQMD, San Joaquin Valley Air Pollution Control District [SJVAPCD]) thresholds of significance to its anticipated date of attainment, projects that demonstrate levels of construction and/or operational emissions below the applicable thresholds would be consistent with long-term regional planning efforts. These projects would

not result in emissions that would conflict with an area achieving future attainment status under the NAAQS and CAAQS as outlined by an applicable air quality plan.

Similarly, projects that demonstrate emissions levels in exceedance of an applicable threshold could contribute to the continued nonattainment designation of a region or potentially degrade a region from attainment to nonattainment resulting in acute or chronic respiratory and cardiovascular illness associated with exposure to concentrations of criteria air pollutants above what EPA and CARB consider safe. Symptoms can include coughing, difficulty breathing, chest pain, eye and throat irritation and, in extreme cases, death caused by exacerbation of existing respiratory and cardiovascular disease, cancer, and impaired immune and lung function.

However, the exact location and magnitude of specific health impacts that could occur as a result of project-level construction- or operation-related emissions is infeasible to model with a high degree of accuracy. While dispersion modeling of project-generated PM may be conducted to evaluate resulting ground-level concentrations, the secondary formation of PM is similar to the complexity of ozone formation, and localized impacts of directly emitted PM do not always equate to local PM concentrations due to the transport of emissions. Ozone is a secondary pollutant formed from the oxidation of ROG and NO_x in the presence of sunlight. Rates of ozone formation are a function of a variety of complex physical factors, including topography, building influences on air flow (e.g., downwash), ROG and NO_x concentration ratios, multiple meteorological conditions, and sunlight exposure (Seinfeld and Pandis 1996:298). For example, rates of ozone formation are highest in elevated temperatures and when the ratio of ROG to NO_x is 5.5:1. When temperatures are lower and this ratio shifts, rates of ozone formation are stunted (Seinfeld and Pandis 1996:299–300). In addition, ROG emissions are composed of many compounds that have different levels of reactivity leading to ozone formation. Methane, for instance, is the most common ROG compound, yet it has one of the lowest reactivity potentials (Seinfeld and Pandis 1996:309, 312). Moreover, some groups may develop more severe health impacts than others. For instance, infants, children, the elderly, and individuals with preexisting medical conditions are more susceptible to developing illnesses from exposure to air pollutants.

Notably, during the litigation process in the Friant Ranch case, SJVACPD submitted an amicus curiae brief that provided scientific context and expert opinion regarding the feasibility of performing regional dispersion modeling for ozone. In the brief, SJVAPCD states that “CEQA does not require an EIR to correlate a project’s air quality emissions to specific health impacts, because such an analysis is not reasonably feasible.” SJVAPCD reiterates that (SJVAPCD 2015):

the Air District has based its thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the [SJVAB] can accommodate without affecting the attainment date for the NAAQS. The Air District has tied its CEQA significance thresholds to the level at which stationary pollution sources must ‘offset’ their emissions...Thus the CEQA air quality analysis for criteria air pollutants is not really localized, project-level impact analysis but one of regional ‘cumulative impacts.’

The brief asserts that these CEQA thresholds of significance are not intended to be applied such that any localized human health impact associated with a project’s emissions could be identified. Rather, CEQA thresholds of significance are used to determine whether a project’s emissions would obstruct a region’s capability of attaining the NAAQS and CAAQS according to the emissions inventory prepared in a SIP, which is then submitted and reviewed by CARB and EPA. This sentiment is corroborated in an additional brief submitted by the South Coast Air Quality Management District (SCAQMD 2015).

SMAQMD has developed Final Guidance based on extensive air quality impact and health effects modeling that yields estimates of incremental health effects as a result of a proposed Project’s emissions of criteria air pollutants and ozone precursors. Based on the magnitude of the Project, the Strategic Area Project Health Effects Tool contained in the guidance was used to evaluate the Project’s incremental health effects. The Strategy Area Project IV, “South Sacramento,” the closest Strategic Area to the City of Elk Grove, was used for the model. Based on the impact determinations summarized below, the Project’s associated adverse health outcomes were only estimated for operational emissions.

CO impacts were assessed qualitatively, using the results from the Project-specific traffic study. The level of health risk from exposure to construction- and operation-related TAC emissions was assessed qualitatively. This assessment was

based on the proximity of TAC-generating construction activity to off-site sensitive receptors, the number and types of diesel-powered construction equipment being used, and the duration of potential TAC exposure. An operational-related TAC exposure assessment was based on the project siting any new sources of TAC-generated activities to off-site receptors.

THRESHOLDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project is considered to have a significant effect on the environment if it would:

- ▶ conflict with or obstruct implementation of the applicable air quality plan,
- ▶ violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- ▶ result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors),
- ▶ expose sensitive receptors to substantial pollutant concentrations, and/or
- ▶ create objectionable odors affecting a substantial number of people

For individual and subsequent projects developed under the Project, the significance criteria used to evaluate project impacts on air quality under CEQA are based on Appendix G of the State CEQA Guidelines and thresholds of significance adopted by SMAQMD. SMAQMD's air quality thresholds of significance are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health. Implementing the project would have a significant impact related to air quality such that human health would be adversely affected if it would (SMAQMD 2020):

- ▶ cause construction-generated criteria air pollutant or precursor emissions to exceed the SMAQMD-recommended thresholds of 85 lb/day for NO_x, 80 lb/day or 13.2 tpy for PM₁₀, and 82 lb/day or 15 tpy for PM_{2.5} once SMAQMD's Basic Construction Emission Control Practices have been implemented;
- ▶ result in a net increase in long-term operational criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended thresholds of 65 lb/day for ROG and NO_x, 80 lb/day and 13.2 tpy for PM₁₀, and 82 lb/day or 15 tpy for PM_{2.5};
- ▶ result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm;
- ▶ result in an incremental increase in cancer risk (i.e., the risk of contracting cancer) greater than 10 in one million at any off-site receptor and/or a noncarcinogenic hazard index of 1.0 or greater; and/or
- ▶ result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

ISSUES NOT DISCUSSED FURTHER

Implementation of the Housing Element and Safety Element Update (e.g., housing and emergency access and evacuation improvements) would not introduce any new stationary sources of odor, due to the nature of the potential development (residential, rather than industrial or agricultural). Therefore, odor impacts are dismissed from the following impact discussion.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Construction Emissions of Criteria Air Pollutants and Precursors

The General Plan EIR Impact 5.3.1 determined that development and growth under the General Plan could result in short-term construction emissions that could violate or substantially contribute to a violation of the NAAQS and CAAQS for ozone, PM₁₀, and PM_{2.5}. This impact was identified as significant and unavoidable. Implementation of the Housing Element and Safety Element Update could generate construction emissions of ROG, NO_x, PM₁₀, and PM_{2.5} from demolition, material and equipment delivery trips, worker commute trips, and other miscellaneous activities. However, construction activities and emissions from implementation of the Housing Element and Safety Element Update would be similar to what was anticipated under the General Plan EIR and its current land use designations. Subsequent projects would be required to comply with General Plan Policy NR-4-8, which would require that emissions in exceedance of SMAQMD's thresholds of significance be mitigated. Therefore, construction-generated emissions would not result in a new or substantially more severe construction air quality impacts than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Impact 5.3.1 of the General Plan EIR estimated that under a worst-case construction year, construction of the development and growth under the General Plan could generate approximately 161.3 lb/day of ROG, 378.5 lb/day of NO_x, 235.0 lb/day of PM₁₀, and 64.0 lb/day of PM_{2.5}. The General Plan EIR concluded that this impact was significant and unavoidable.

Construction-related activities would generate emissions of ROG, NO_x, PM₁₀, and PM_{2.5} associated with demolition, off-road equipment, material delivery, worker commute trips, and other miscellaneous activities (e.g., application of architectural coatings). Fugitive dust emissions of PM₁₀ and PM_{2.5} would be associated primarily with demolition and vary as a function of soil silt content, soil moisture, wind speed, and acreage of disturbance. PM₁₀ and PM_{2.5} are also contained in exhaust from off-road equipment and on-road vehicles. Emissions of ozone precursors, ROG and NO_x, would be associated primarily with construction equipment and on-road mobile exhaust. The application of architectural coatings results in off-gas emissions of ROG.

Construction activities were assumed to begin in early 2021 and extend until the end of the growth forecast period (2029). For specific construction assumptions and modeling inputs, refer to Appendix B. Table 3.2-3 summarizes the modeled maximum daily (ROG/NO_x, PM) and annual (PM) emissions from construction activities over an assumed nine-year construction period from existing and candidate housing sites under the Housing Element Update.

As shown in Table 3.2-3, daily emissions of NO_x could exceed SMAQMD's annual mass emissions thresholds. Emissions of PM₁₀, and PM_{2.5} would also exceed their respective thresholds. SMAQMD's project thresholds are intended to maintain or achieve attainment designations in the SVAB with respect to the CAAQS and NAAQS. Implementation of the Safety Element Update could also result in construction emissions associated with improvements for emergency access and evacuation routes; however, the amount or timing of these emissions is speculative at this time. If a project does not exceed SMAQMD's thresholds, it would be determined that project's contribution of air pollutants would not affect an air basin's maintenance or attainment of the NAAQS and CAAQS, thus would not exacerbate or interfere with the region's ability to attain the health-based standards (SMAQMD 2020). Because the Project's construction emissions of NO_x, PM₁₀, and PM_{2.5} could be above SMAQMD's recommended thresholds, these pollutants could contribute substantially to an existing or projected air quality violation of the NAAQS and CAAQS could occur. This is consistent with the findings of the General Plan EIR as the subsequent development of housing sites would be similar to development assumed in the General Plan EIR and its current land use designations. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR.

Table 3.2-3 Summary of Maximum Emissions of Criteria Air Pollutants and Precursors Associated with Housing Element Update Housing Sites Construction per Year (2021–2029)

Construction Year	ROG (lb/day) ¹	NO _x (lb/day)	PM ₁₀ (lb/day)	PM ₁₀ (tpy)	PM _{2.5} (lb/day)	PM _{2.5} (tpy)
2021	20	88	37	2	12	1
2022	19	82	36	5	11	1
2023	17	71	36	5	10	1
2024	16	69	36	5	10	1
2025	15	66	36	5	10	1
2026	15	65	36	5	10	1
2027	14	64	36	5	10	1
2028	14	63	36	5	10	1
2029	37	61	36	<1	10	<1
SMAQMD Threshold of Significance	None	85	0	0	0	0

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter with aerodynamic diameter of 10 micrometers or less; PM_{2.5} = fine particulate matter with aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

¹ Emissions of ROG were adjusted off-model to correct the CalEEMod assumption that all architectural coatings would occur within the final year of construction.

Source: Modeling performed by Ascent Environmental in 2020

As identified in the General Plan EIR, construction-generated sources of criteria air pollutants from new development under the Project would be minimized through implementation of General Plan Policy NR-4-8, which includes Standards NR-4.8.a through NR-4.8.d that require implementation of the SMAQMD recommended standard construction mitigation. All projects that will involve construction activities, regardless of the significance determination, are required to implement the SMAQMD Basic Construction Emission Control Practices (Best Management Practices) for controlling fugitive dust at construction sites. SMAQMD Best Management Practices would be identified in subsequent project site plans and/or improvement plans and implemented during construction (e.g., site watering, equipment idling restrictions, and covering of transported fill). These practices collectively reduce fugitive PM by approximately 54 percent. For projects that will generate maximum daily NO_x emissions exceeding the SMAQMD threshold of significance, SMAQMD recommends implementation of the Enhanced Exhaust Control Practices for off-road construction equipment. The SMAQMD considers implementation of the Enhanced Exhaust Control Practices to achieve a 10 percent reduction for NO_x from off-road construction equipment exhaust when compared to the state fleet average. For projects where emissions still exceed the SMAQMD daily emissions threshold for NO_x and PM after application of the above measures, SMAQMD requires the project applicant to pay into the SMAQMD's construction mitigation fund to offset construction-generated emissions of NO_x and/or PM. Payment into this program allows the air district to offset the contribution of emissions associated with individual construction projects by removing other NO_x or PM generating sources elsewhere in the air basin.

The General Plan EIR concluded that no additional feasible plan-level mitigation was available beyond compliance with General Plan Policy NR-4-8 and that this impact was significant and unavoidable. Construction-generated emissions from implementation of the Housing Element and Safety Element Update would not result in a new or substantially more severe construction air quality impacts that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policy NR-4-8 and its standards that require implementation of the SMAQMD Basic Construction Emission Control Practices.

Impact 3.2-2: Long-Term Operational Emissions of ROG, NO_x, PM₁₀, and PM_{2.5}

General Plan EIR Impact 5.3.2 and 5.3.6 determined that long-term operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5} would be substantial and could substantially contribute to a violation of the NAAQS and CAAQS for ozone and PM and conflict with air quality attainment efforts. This impact was identified as significant and unavoidable. Implementation of the Housing Element and Safety Element Update could generate long-term operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5}. However, emissions from implementation of the Housing Element and Safety Element Update would be similar to what was anticipated under the General Plan EIR and its current land use designations. Therefore, operational emissions would not result in a new or substantially more severe air quality impacts that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

General Plan EIR Impact 5.3.2 and 5.3.6 determined that long-term operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5} would be substantial and could substantially contribute to a violation of the NAAQS and CAAQS for ozone and PM and conflict with air quality attainment efforts. Based on modeling performed for that analysis, the land uses proposed under the General Plan resulted in 8,280 lb/day of ROG, 2,673 lb/day of NO_x, 177 lb/day of PM₁₀, and 168 lb/day of PM_{2.5}. These levels of emissions would exceed SMAQMD's thresholds of significance and this impact was concluded to be significant and unavoidable.

Operation emissions associated with housing sites identified in the Housing Element Update could result in the generation of long-term operational emissions of ROG, NO_x, and particulate matter (PM₁₀ and PM_{2.5}) from mobile, stationary, and area-wide sources. Mobile-source emissions of criteria pollutants and precursors would result from vehicle trips generated by residents and their visitors, as well as deliveries made to residences. Stationary and area-wide sources would include the combustion of natural gas for space and water heating (i.e., energy use), the use of landscaping equipment and other small equipment, the periodic application of architectural coatings, and ROG from the use of consumer products.

Table 3.2-4 summarizes the maximum annual and daily operational-related emissions of criteria air pollutants during the first year of assumed buildout (i.e., 2029) for the maximum number of housing sites proposed under the Housing Element Update. Emissions were calculated based on proposed land uses and adjusted trip lengths to match Project-specific VMT, as reported in the traffic study (Section 3.13, "Transportation and Circulation") for the Project. As shown in Table 3.2-4, operational-related activities could result in annual and daily emissions of ROG, NO_x, and PM₁₀, that exceed the SMAQMD-recommended thresholds of significance. No operational emissions are anticipated from implementation of the Safety Element Update because it would not result in the development of a land use that could generate air pollutant emissions.

Table 3.2-4 Summary of Maximum Operational Emissions of Criteria Air Pollutants and Precursors From Housing Element Update Housing Sites (2029)

Emissions Source	ROG (lb/day)	NO _x (lb/day)	PM ₁₀ (lb/day)	PM ₁₀ (tpy)	PM _{2.5} (lb/day)	PM _{2.5} (tpy)
Area	157	5	3	<1	3	<1
Mobile	1	9	1	<1	1	<1
Energy	43	151	181	29	49	8
Total Emissions	201	165	185	29	52	8
SMAQMD Threshold of Significance	65	65	0	0	0	0

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter; PM_{2.5} = fine particulate matter; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Total values may not sum exactly due to rounding. See Appendix B for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2020

SMAQMD's project thresholds are intended to maintain or achieve attainment designations in the SVAB with respect to the CAAQS and NAAQS. Projects that exceed SMAQMD's thresholds contribute to nonattainment designations, it would exacerbate or interfere with the region's ability to attain the health-based standards (SMAQMD 2020). Because implementation of the Housing Element could result in operational emissions above SMAQMD's recommended thresholds, they could contribute to a violation of any air quality standard or contribute substantially to an existing or projected air quality violation. Because the ambient air quality standards are established to be protective of public health, adverse health impacts to receptors could occur due to the Project's emissions being above SMAQMD's thresholds. This is consistent with the findings of the General Plan EIR as the subsequent development of housing sites would generate emissions similar to development and buildout conditions assumed in the General Plan EIR and its current land use designations. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR.

Consistent with SMAQMD's most recent Friant Ranch Guidance, the possible operational emissions of criteria air pollutants from implementation of the Housing Element Update were used to estimate foreseeable adverse health outcomes using SMAQMD's Strategic Area Project Health Effects Tool. Strategic Area Project IV, "South Sacramento," was used as this Strategic Area is the closest to the City of Elk Grove. Table 3.2-5 below summarizes the potential health effects in the region from the Housing Element Update.

Table 3.2-5 Potential Annual Incremental Health Incidences for the Housing Element Update

PM _{2.5} Health Endpoint	Age Range	Incidences (Mean)	Percent of Background Incidences	Total Number of Health Incidences (per Year)
Respiratory				
Emergency Room Visits	0-99	3.3	0.018%	18,419
Hospital Admissions, Asthma	0-64	0.22	0.012%	1,846
Hospital Admissions, All Respiratory	65-99	0.99	0.0050%	19,644
Cardiovascular				
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65-99	0.58	0.0024%	24,037
Acute Myocardial Infarction, Nonfatal	18-24	0.00030	0.0079%	4
Acute Myocardial Infarction, Nonfatal	25-44	0.024	0.0078%	308
Acute Myocardial Infarction, Nonfatal	45-54	0.060	0.0081%	741
Acute Myocardial Infarction, Nonfatal	55-64	0.10	0.0081%	1,239
Acute Myocardial Infarction, Nonfatal	65-99	0.37	0.0074%	5,052
Mortality				
Mortality, All Causes	30-99	6.6	0.015%	44,766
Ozone Health Endpoint	Age Range	Incidences (Mean)	Percent of Background Incidences	Total Number of Health Incidences (per Year)
Respiratory				
Hospital Admissions, All Respiratory	65-99	0.14	0.00070%	19,644
Emergency Room Visits, Asthma	0-17	0.80	0.014%	5,859
Emergency Room Visits, Asthma	18-99	1.2	0.0097%	12,560
Mortality				
Mortality, Non-Accidental	0-99	0.090	0.00029%	30,386
Total Incidences	0-99	14.47	0.0012	184,505

Notes: PM_{2.5} = fine particulate matter; NA = not applicable.

Source: Modeling conducted by Ascent Environmental 2020

Based on this modeling, operational emissions from implementation of the Housing Element Update may result in an additional 7 deaths from ozone and PM_{2.5} exposure compared to a background number of incidences of about 75,000 mortality incidences per year. There is no established threshold of significance that addresses anticipated deaths; however, consistent with guidance from the Friant Ranch Decision, this information has been included to provide a meaningful level of detail to readers of this Draft SEIR. Notably, as discussed under the heading, "Methodology," there is inherent difficulty in evaluating the exact location and degree of adverse health outcomes from project-level emissions. Moreover, the Strategic Area Project Health Effects Tool cannot account for personal information such as age, preexisting conditions, genetic propensities, and lifestyle choices that may contribute to a receptor's sensitivity to air pollution.

As noted in the General Plan EIR, General Plan Policy NR-4-1 requires that all new development projects in the City with the potential to result in substantial air quality impacts incorporate features to reduce emissions equal to 15 percent compared to an "unmitigated baseline" project. An unmitigated baseline project is a development project that is built and/or operated without the implementation of trip reduction, energy conservation, or similar features. Standard NR-4-1a requires appropriate mitigation measures to the extent feasible and appropriate, potentially including—in the case of projects which may conflict with applicable air quality plans—emission reductions in addition to those required by Policy NR-4-1.

Additionally, General Plan Policy MOB-1-1 requires that new land use plans, amendments to such plans, and other discretionary development proposals demonstrate 15 percent reduction in VMT from existing conditions. While the primary intent of this policy would be to reduce emissions of greenhouse gases (see Section 3.6, "Greenhouse Gas Emissions"), this policy would have beneficial effects on ambient air quality in the Planning Area. However, a 15 percent reduction in VMT may be achieved through several pathways which are unknown at the time of writing this Draft SEIR. For instance, a project may implement a transportation demand management (TDM) plan, which may be composed of multiple strategies to reduce VMT such as congestion pricing, parking management, ridesharing matching, and carpool and vanpool programs. A TDM may include all or some methods of VMT-reducing strategies; however, a TDM plan is project-specific and would be developed in consideration of the land use types associated with a future project. As such, the composition of reductions for air pollutants would differ depending on the type of project. General Plan Standard MOB-3-2.a requires new residential development to pre-wire for plug-in EV, which would further reduce emissions. As summarized in Section 3.2.1, "Regulatory Setting," the City Municipal Code Sections 16.07.200 through 16.07.500 includes a streamlined permitting process for the installation of EV charging stations, which would additionally reduce emissions from the mobile sector associated with the combustion of fossil fuels. Municipal Code Section 23.58.120 requires one "EV ready" parking space for all new one family and two family dwelling units. This section also requires that 2.5 percent of parking for multifamily projects provide EV charging and an additional 2.5 percent of parking be ready for future EV charging expansion.

Implementation of General Plan Policy NR-4-1 would help reduce operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5}; however, the reductions anticipated to be achieved by General Plan Policy NR-4-1 cannot be uniformly applied to all future development under the Project. There is inherent uncertainty as to the size, intensity, and timing of future development that would occur under the Project. Notably, some smaller housing projects may generate emissions below SMAQMD's operational thresholds of significance. Therefore, because the details of future development (e.g., the size, intensity, duration of construction, overlap of construction with other projects) cannot be determined at this time, the assumed levels of emissions may not fully encompass total net changes in future emissions.

The General Plan EIR concluded that no additional feasible plan-level mitigation was available beyond compliance with General Plan policies and concluded that Impact 5.3.2 and 5.3.6 are significant and unavoidable. Operational emissions from implementation of the Housing Element and Safety Element Update would not result in a new or substantially more severe air quality impacts that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policy NR-4-1, Policy MOB-1-1, and Standard MOB-3-2a, and Municipal Code Sections 16.07.200 through 16.07.500 and 23.58.120.

Impact 3.2-3: Exposure of Sensitive Receptors to Substantial Carbon Monoxide Pollutant Concentrations

The General Plan EIR concluded that the Project would not contribute to localized concentrations of mobile-source CO impacts. Implementation of the Housing Element and Safety Element Update would include different land uses and would distribute vehicle trips throughout the City; however, this redistribution would not result in a new impact. Based on modeling performed for this analysis, the maximum number of housing sites proposed under the Housing Element Update could generate a maximum of 32,600 daily trips; however, the trips would be distributed throughout the City and into the region and would not be focused within one intersection exclusively. Therefore, there is no new effect and the impact is not substantially more severe than the impact identified in the General Plan. This impact would remain **less than significant** as identified in the General Plan EIR.

Impact 5.3.3 of the General Plan EIR used a tiered approach established by SMAQMD to evaluate potential CO exposure. Based on this tiered approach, traffic generated would not exceed 9,010 and 9,240 trips in the a.m. and p.m. peak periods, respectively. This level of trips would be less than the 31,600 vehicles per hour (VPH) at an intersection, which comprises the screening criterion established by SMAQMD to evaluate CO impacts. Because this level would be less, the General Plan would not result in a CO "hotspot."

The primary addition of vehicle trips associated with the Safety Element Update would occur during construction of new infrastructure and deployment of police, fire, and emergency medical services as well as the execution of evacuations if warranted. Construction-related vehicle trips would be minor and would be dispersed throughout the General Plan Area. Additionally, police, fire, and emergency medical service vehicles would operate throughout the General Plan Area and would not be substantially greater than the existing vehicle movement associated with these services.

Based on modeling conducted for this analysis, the housing sites under the Housing Element Update could generate a maximum of 32,600 daily vehicle trips throughout the City. While localized concentrations of criteria air pollutants can expose sensitive receptors to substantial pollutant concentrations, criteria air pollutants generally produce regional impacts. Criteria air pollutants are predominantly generated in the form of mobile-source exhaust from vehicle trips associated with land use development projects. These vehicle trips occur throughout a paved network of roads, and, therefore, associated exhaust emissions of criteria air pollutants are not generated in a single location where high concentrations could be formed. However, there may be unique situations or infrastructure designs (e.g., tunnels, enclosed underpasses) where a project with high levels of emissions may require concentration modeling to determine if the emissions will expose sensitive receptors to substantial pollutant concentrations.

Using the screening criteria utilized in the General Plan EIR established by SMAQMD, a CO hotspot could occur at intersections that support 31,600 VPH. Although the 32,600 daily trips generated by the housing sites under the Housing Element Update would be greater than this 31,600 VPH screening criterion, that value is intended to be used for discrete intersections rather than a City/regional addition. Because these trips would be regional in nature rather than localized, a CO hotspot would not occur.

Additionally, mobile-source CO emissions have historically decreased since the advent of catalytic converters, which decrease mobile-source exhaust emissions, and there have been improvements in fuel economy since 2006 through regulatory compliance implemented by EPA and CARB (e.g., the CAFE standards and Advanced Clean Cars program). As such, CO emissions from the Project would not introduce a substantially new or more severe impact as compared to what was evaluated in the General Plan EIR. Therefore, there is no new significant impact and the impact is not substantially more severe than the impact identified in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.2-4: Exposure of Sensitive Receptors to TACs

The General Plan EIR concluded that operational-related emissions of mobile source TACs would result in significant and unavoidable impacts to public health. Implementation of the Housing Element and Safety Element Update could generate mobile source TACs. However, these TAC emissions would be similar to what was anticipated under buildout conditions as described in the General Plan EIR and its current land use designations. Therefore, potential TAC mobile emissions would not result in a new or substantially more severe TAC impacts that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Impact 5.3.4 of the General Plan EIR evaluated the potential health risk to sensitive receptors (i.e., people, or facilities that generally house people such as schools, hospitals, residences) associated with construction-generated TACs and concluded impacts would be less than significant.

Particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) were identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed above in Section 3.6.2, "Environmental Setting," outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003:K-1). With regard to exposure of diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, when a Health Risk Assessment is prepared to project the results of exposure of sensitive receptors to selected compounds, exposure of sensitive receptors to TAC emissions should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the duration of activities associated with the proposed project if emissions occur for shorter periods (OEHHA 2015:5-23, 5-24).

The TAC that is the focus of this analysis is diesel PM because it is known that diesel PM would be emitted during project construction and operation. Although other TACs exist (e.g., benzene, 1,3-butadiene, hexavalent chromium, formaldehyde, methylene chloride), they are primarily associated with industrial operations and the Housing Element and Safety Element Update would not include any industrial sources of other TACs.

Construction-related activities that would result in temporary, intermittent emissions of diesel PM would be from the exhaust of off-road equipment used during demolition and building modernization and on-road heavy-duty trucks. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment are less of a concern because they do not operate at any one location for extended periods of time such that they would expose a single receptor to excessive diesel PM emissions.

Based on the construction-related emissions modeling conducted (see Appendix B), maximum daily emissions of exhaust PM₁₀ would be less than 2 lb/ during peak construction. A portion of these emissions would be due to haul trucks traveling to and from housing sites. This is below the SMAQMD-recommended threshold of 80 lb/day. In addition, construction activities located in close proximity to residential units (considered sensitive receptors) would occur during daytime hours consistent with General Plan Noise Policy NO-1-7 and Municipal Code Section 6.32.100, which restricts construction activities to between 7 a.m. and 7 p.m., Monday through Friday, which is when many residents are not home, thus limiting exposure from construction-related emissions to these receptors. As stated in Section 3.2.1, "Regulatory Setting," construction activities may be allowed between the hours of 6 a.m. and 8 p.m. if construction would not be located within the vicinity of a residential land uses, which are considered sensitive receptors.

Construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk greater than 10 in 1 million or a hazard index greater than 1.0. The low exposure level reflects the (i) relatively low mass of diesel PM emissions that would be generated by construction activity on the project site; (ii) the relatively short duration of diesel PM-emitting construction activity in the City; and (iii) the highly dispersive properties of diesel PM. Therefore, there is no new significant impact and the impact is not more severe than the impact identified in the General Plan EIR with respect to construction-related TACs.

Impact 5.3.4 of the General Plan EIR assessed the potential for receptors to be exposed to substantial pollutant concentrations from stationary sources and concluded that this impact would be potentially significant. The housing sites under the Housing Element Update would not introduce new stationary sources of pollution to the City. Therefore, there is no new significant impact and the impact is not more severe than the impact identified in the General Plan EIR with respect to stationary-sourced TACs.

Impact 5.3.4 of the General Plan EIR evaluated long-term operational sources of TACs and concluded that due to the anticipated level of traffic along certain roadways within the General Plan area, sensitive receptors could be exposed to substantial TAC concentrations. The General Plan EIR used the CARB- and SMAQMD-recommended 100,000 daily vehicle trips on a roadway segment to determine that new vehicle trips generated by the land uses under the General Plan would introduce substantial mobile-source TACs within the General Plan area.

Implementation of the Housing Element Update could generate additional vehicle trips associated with residential development than what was evaluated in the General Plan EIR due to the identification of new candidate housing sites of higher-density that were not previously evaluated in the General Plan EIR due to changes in land use designations. However, the extent of this increase would not create substantially higher levels of mobile TACs or generate new sources of mobile TACs than what was considered in the General Plan EIR. Implementation of General Plan Policies NR-2-4, NR-4-9, NR-4-10, MOB-3-1, MOB-3-2, MOB-3-5, MOB-3-6, MOB-3-7, MOB-3-13, and MOB-7-5 would serve to lower exposure of sensitive receptors to sources of TACs throughout the General Plan Planning Area. As discussed previously, the CARB Diesel Risk Reduction Plan and Air Toxic Control Measures would help reduce future emissions of diesel PM (the primary TAC of concern in mobile emissions).

The General Plan EIR concluded that no additional feasible plan-level mitigation was available beyond compliance with General Plan policies and that this impact was significant and unavoidable. Operational emissions from implementation of the Housing Element and Safety Element Update would not result in a new or substantially more severe TAC impacts that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policies NR-2-4, NR-4-9, NR-4-10, MOB-3-1, MOB-3-2, MOB-3-5, MOB-3-6, MOB-3-7, MOB-3-13, and MOB-7-5.

3.3 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the Housing Element and Safety Element Update (Project) on known and unknown cultural resources. 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).

Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include pre-historic resources, historic-period resources, and “tribal cultural resources” (the latter as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code [PRC] Section 21074).

Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-period physical remains (e.g., stone tools, bottles, former roads, house foundations). Historical (or built-environment) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts), or landscapes. A cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects, with cultural value to a tribe.

One comment letter regarding cultural resources was received in response to the notice of preparation (NOP) (see Appendix A). The Native American Heritage Commission (NAHC) requested AB 52 and SB 18 compliance information; while SB 18 does apply to the Project because there is a General Plan amendment associated with the Project (which is the trigger for SB 18 compliance), SB 18 is not a CEQA requirement and therefore is not discussed in this section. AB 52 compliance is described below.

3.3.1 Regulatory Setting

FEDERAL

National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation’s master inventory of known historic properties. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

The formal criteria (36 CFR 60.4) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
3. It possesses at least one of the following characteristics:
 - Criterion A Is associated with events that have made a significant contribution to the broad patterns of history (events).
 - Criterion B Is associated with the lives of persons significant in the past (persons).
 - Criterion C Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).
 - Criterion D Has yielded, or may be likely to yield, information important in prehistory or history (information potential).

Listing in the NRHP does not entail specific protection or assistance for a property but it does guarantee recognition in planning for federal or federally-assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

The National Register Bulletin also provides guidance in the evaluation of archaeological site significance. If a heritage property cannot be placed within a particular theme or time period, and thereby lacks "focus," it is considered not eligible for listing in the NRHP. In further expanding upon the generalized NRHP criteria, evaluation standards for linear features (such as roads, trails, fence lines, railroads, ditches, and flumes) are considered in terms of four related criteria that account for specific elements that define engineering and construction methods of linear features: (1) size and length, (2) presence of distinctive engineering features and associated properties, (3) structural integrity, and (4) setting. The highest probability for NRHP eligibility exists in the intact, longer segments, where multiple criteria coincide.

STATE

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are eligible for listing in the California Register of Historical Resources (CRHR). The CRHR is a listing of State of California resources that are significant in the context of California's history. It is a Statewide program with a scope and with criteria for inclusion similar to those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. Is associated with the lives of persons important to local, California, or national history.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity to be listed in the CRHR. The CRHR uses the same seven aspects of integrity used by the NRHP.

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on "historical resources," "unique archaeological resources," and "tribal cultural resources." Pursuant to PRC Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources. PRC Section 21084.2 establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."

Historical Resources

"Historical resource" is a term with a defined statutory meaning (PRC Section 21084.1; State CEQA Guidelines Sections 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources include the following:

- 1) A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR (PRC Section 5024.1).
- 2) A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k), or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g), will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1).
- 4) The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1[k]), or identified in a historical resources survey (meeting the criteria in PRC Section 5024.1[g]) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects will affect unique archaeological resources. PRC Section 21083.2(g) states that "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects will affect tribal cultural resources. Public Resources Code, Section 21074 states:

- a) "Tribal cultural resources" are either of the following:
 - 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
 - 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
- b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

- c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act (PRC Section 5097.9) applies to both State and private lands. The act requires, upon discovery of human remains, that construction or excavation activity cease and that the county coroner be notified. If the remains are those of a Native American, the coroner must notify the NAHC, which notifies and has the authority to designate the most likely descendant (MLD) of the deceased. The act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code, Sections 7050.5

Section 7050.5 of the Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If they are determined to be those of a Native American, the coroner must contact NAHC.

Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed if human remains are unexpectedly discovered on nonfederal land. The disposition of Native American burial falls within the jurisdiction of NAHC. Section 5097.5 of the code states:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Public Resources Code Section 21080.3

AB 52, signed by the California Governor in September of 2014, established a new class of resources under CEQA: “tribal cultural resources,” defined in PRC Section 21074. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation before the release of an EIR, negative declaration, or mitigated negative declaration.

PRC Section 21080.3.2 states:

Within 14 days of determining that a project application is complete, or to undertake a project, the lead agency must provide formal notification, in writing, to the tribes that have requested notification of proposed projects in the lead agency’s jurisdiction. If it wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. The lead agency must begin the consultation process with the tribes that have requested consultation within 30 days of receiving the request for consultation. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process, provisions under PRC Section 21084.3 (b) describe mitigation measures that may avoid or minimize the significant adverse impacts. Examples include:

- (1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- (2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

- (A) Protecting the cultural character and integrity of the resource
- (B) Protecting the traditional use of the resource
- (C) Protecting the confidentiality of the resource.
- (3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- (4) Protecting the resource.

LOCAL

City of Elk Grove General Plan

Chapter 7, "Community and Resource Protection," of the *City of Elk Grove General Plan (2019)* contains the following policies relevant to cultural and tribal cultural resources:

- ▶ **Policy HR-1-1:** Encourage the appropriate adaptive reuse of historic resources and buildings.
- ▶ **Policy HR-1-2:** Strive to preserve historic buildings and resources through adaptive re-use.
- ▶ **Policy HR-1-3:** Encourage efforts that prevent the misuse, disrepair, and demolition of historic resources and buildings.
- ▶ **Policy HR-2-1:** Protect and preserve prehistoric and historic archaeological resources throughout the City.
- ▶ **Policy HR 2-2:** Consult when appropriate with local Native American tribes, the California Native American Heritage Commission, and any other appropriate organizations and individuals to minimize potential impacts to cultural and tribal resources.
- ▶ **Policy HR 2-3:** Identify and evaluate local archaeological resources for inclusion in the National Register of Historic Places.
- ▶ **Policy HR 2-4:** Ensure that City ordinances, programs, and policies create an environment that fosters the preservation, rehabilitation, and maintenance of historic, archaeological, and tribal resources.
- ▶ **Policy HR 3-2:** Encourage new development to be compatible with adjacent existing historic structures in terms of scale, massing, building material, and general architectural treatment.

City of Elk Grove Municipal Code

Municipal Code Chapter 7, Historic Preservation, contains regulatory requirements to provide for "the identification, designation, protection, enhancement, perpetuation and use of historical resources including buildings, structures, objects, sites, districts, cultural landscapes, tribal cultural resources, and the historical personal histories and family stories of individuals, businesses, and associations in the City that reflect special elements of the City's heritage and cultural diversity."

The criteria for listing in the Elk Grove Register of Historic Resources are contained in Section 7.00.050 of the Municipal Code. A historical resource may be listed in the Elk Grove Register of Historic Resources if it meets any of the following four levels of significance within a given historic context:

1. Associated with events that have made a significant contribution to the broad patterns of Elk Grove's history;
2. Associated with the lives of persons significant in Elk Grove's past;
3. Embodies the distinctive characteristics of a type, period, or method of construction; or that represents the work of a master; or that possesses high artistic values; or that represents a significant and distinguishable entity whose components may lack individual distinction; and/or
4. Has yielded, or may be likely to yield, information noteworthy in prehistory or history.

To be listed in the Elk Grove Register of Historic Resources, resources must also retain four or more aspects of integrity outlined below:

1. Location: the place where a resource was constructed or the place where the historic event occurred.
2. Design: the combination of elements that create the form, plan, space, structure, and style of a resource.
3. Setting: the physical environment of a resource.
4. Materials: the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a resource.
5. Workmanship: the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
6. Feeling: is a property's expression of the aesthetic or historic sense of a particular period of time.
7. Association: the direct link between an important historic event or person and a historic property.

3.3.2 Environmental Setting

REGIONAL PREHISTORY

Although human occupation of the Central Valley may extend back 10,000 before present (B.P.), reliable evidence of such an early human presence is lacking and may be deeply buried. The prehistoric setting can be categorized into the following periods.

The Paleo-Indian Period: The Paleo-Indian Period (12,000 to 10,500 B.P.) saw the first demonstrated entry and spread of humans into California. Characteristic artifacts recovered from archaeological sites of this time period include fluted projectile points (constructed from chipped stones that have a long groove down the center called a "flute") and large, roughly fashioned cobble and bifacially-flaked stone tools that were used in hunting the mastodon, bison, and mammoth that roamed the land during this time.

The Lower Archaic Period: The beginning of the Lower Archaic Period (10,500 to 7500 B.P.) coincides with that of the Middle Holocene climatic change which resulted in widespread floodplain deposition. This episode resulted in most of the early archaeological deposits being buried. Most tools were manufactured of local materials, and distinctive artifact types include large dart points and the milling slab and handstone.

The Middle Archaic Period: The Middle Archaic Period (7500 to 2500 B.P.) is characterized by warm, dry conditions which brought about the drying up of pluvial lakes. Economies were more diversified and may have included the introduction of acorn processing technology, although hunting remained an important source of food. Artifacts characteristic of this period include milling stones and pestles and a continued use of a variety of implements interpreted as large dart points.

The Upper Archaic Period: The Upper Archaic Period (2500 to 850 B.P.) corresponds with a sudden turn to a cooler, wetter and more stable climate. The development of status distinctions based upon wealth is well documented in the archaeological record. The development of specialized tools, such as bone implements and stone plummets, as well as manufactured shell goods, were prolific during this time. The regional variance of economies was largely because of the seasonality of resources which were harvested and processed in large quantities.

The Emergent Period: Several technological and social changes distinguish the Emergent Period (850 B.P. to Historic) from earlier cultural manifestations. The bow and arrow were introduced, ultimately replacing the dart, and throwing spear, and territorial boundaries between groups became well established. In the latter portion of this Period (450 to 1800 B.P.), exchange relations became highly regularized and sophisticated. The clam disk bead developed as a monetary unit of exchange, and increasing quantities of goods moved greater distances. It was at the end of this Period that contact with Euroamericans became commonplace, eventually leading to intense pressures on Native American populations (Sacramento LAFCo 2017:3.5-2).

ETHNOGRAPHY

The housing sites are located in the Plains Miwok territory. The Plains Miwok are one of four Eastern Miwok groups. Linguistically, the Plains Miwok were part of the eastern group of the two subdivisions of Miwokan speakers. Plains Miwok territory included the lower Mokelumne River, the Cosumnes River, and the Sacramento River from Rio Vista to Sacramento. The Sierra Nevada foothills formed the eastern boundary; the western boundary was between Fairfield and the Sacramento River.

The Plains Miwok were seasonal hunter-gatherers with semipermanent settlements. Their territory included a main village and smaller satellite villages. Villages were divided into tribelets, which averaged 300–500 individuals and controlled specific lands and the natural resources in the territory. The main village included a large semisubterranean or simple circular brush structure that served as the dance or assembly house. Villages also contained dwellings, acorn granaries, conical sweathouses, and winter grinding houses. Dwellings were either aboveground conical houses made with tule-matting or semisubterranean. Winter villages were located on high ridges near watercourses. Cremation, rather than interment, was practiced by the Plains Miwok.

As it was for many other Native American groups in California, the acorn was the primary food staple of the Plains Miwok, supplemented by fish, shellfish, waterfowl, and large and small mammals. Acorns were collected in the late fall/early winter and stored in the conical-shaped granaries before they were processed. Large and small animals regularly hunted by the Plains Miwok included deer, elk, pronghorn, rabbits, squirrels, beaver, and woodrats. Salmon were an important fish resource, along with sturgeon and lamprey.

The Plains Miwok used a variety of tools for hunting and collecting resources, including the bow and arrow, snares, traps, enclosures or blinds, nets, seines, hook and line, harpoons, and basketry. On navigable rivers, the principal watercraft was the tule balsa canoe. The Plains Miwok made both twined and coiled basketry and used woven burden baskets to transport seeds, roots, or nuts for processing or storage. Tools used to process food included bedrock mortars, cobblestone pestles, anvils, and portable stone mortars and pestles to grind or mill acorns and seeds. Food preparation involved use of a variety of knives, leaching and boiling baskets, woven strainers and winnowers, and woven drying trays. Earth ovens were used to bake acorn bread.

Trade goods included marine shell (*olivella* and abalone) and steatite with coastal groups; basketry from various areas; and salt and obsidian from the Sierra Nevada and Great Basin.

The Native American population in the Sacramento Valley first came into contact with Spanish explorers in the late 1700s as the Franciscan missions sought converts. Plains Miwok converts were sent to Mission San José in the early 1800s. Many labored in large ranchos awarded during the Mexican period.

During two epidemics, in 1830 and 1837, foreign diseases decimated the populations of indigenous people in the Sacramento Valley. The discovery of gold in 1848 and the ensuing Gold Rush also contributed to substantial population declines. Between 1805 and 1856, the Miwok population declined from nearly 20,000 to approximately 3,000. Surviving Miwok labored for the growing mining, ranching, farming, and lumber industries (City of Elk Grove 2018:5.5-2, 5.5-3).

HISTORIC SETTING

Regional History

Spanish exploration of the Central Valley dates to the late 1700s, but exploration of the northern section of the Central Valley and contact with its Native American population did not begin until the early 1800s, as described above. The second quarter of the nineteenth century encompasses the Mexican Period (ca. 1821-1848) in California. This period is an outgrowth of the Mexican Revolution, and its accompanying social and political views affected the mission system across California. In 1833 the missions were secularized and their lands divided among the *Californios* as land grants called *ranchos*. These ranchos facilitated the growth of a semi-aristocratic group that controlled the larger ranchos. The work on these large tracts of land was accomplished by the forced labor of local Native

Americans. The closest ranchos to the Project area are in Sacramento County near the southern boundary of Placer County. These ranchos include the Rancho de Paso, the San Juan, and the Río de los Americanos.

Simultaneously with the exploration of the Central Valley, the flanks of the Sierra Nevada trails were being blazed across the plains and mountains facilitating the westward migration of Euroamericans. These early immigrants to California are typified by groups such as the 1841 Bartleson-Bidwell party and the 1844 Stevens-Murphy party. The commencement of the Mexican-American War in 1846 also affected the exploration and development of California, including the identification of new trails across the Sierra Nevada. The exploits of the Mormon Battalion and the establishment of the Mormon Emigrant Trail across the Sierra Nevada highlight these activities.

The discovery of gold at Sutter's Mill in Coloma in 1848 was the catalyst that caused a dramatic alteration of both Native American and Euroamerican cultural patterns in California. Once news of the discovery of gold spread, a flood of Euroamericans entered the region, and gravitated to the area of the "Mother Lode." Initially, the Euroamerican population grew slowly but soon exploded as the presence of large deposits of gold was confirmed in the Sacramento area. The population of California quickly swelled from an estimated 4,000 Euroamericans in 1848 to 500,000 in 1850. Sacramento, established in 1848 by John A. Sutter, also grew in population and was incorporated as a city in 1850 (Sacramento LAFCO 2017:3.5-4).

Elk Grove History

Elk Grove first developed as a town between 1868-1892 (Early Elk Grove Historical Period) due to the construction of the Sacramento-Stockton line of the Western Pacific Railroad (later known as the Central Pacific Railroad). The railroad provided area ranchers and farmers improved access for shipping agricultural products. It also provided a central area in which to develop a downtown business district (City of Elk Grove 2016:4-7).

Beginning in 1893, Elk Grove developed its identity and character as agricultural community with solid infrastructure to support residential, commercial, industrial, and agricultural development. Municipal facilities formed, including a water company, fire department, and free library. Three waves of construction occurred after a fire in 1892: rebuilding after the fire, beginning in 1893; municipal improvements in 1910; and redevelopment in the 1920s to replace 19th century schools and churches, and build infrastructure to accommodate automobiles. The most impressive developments during this period are associated with the growth of Elk Grove's wine industry, and the increase of fruit packing and shipping. Throughout the three-decade period of 1893 to 1926 (Middle Elk Grove Historical Period), Elk Grove remained a quiet farming community, only growing from approximately 400 to 800 persons (City of Elk Grove 2016:4-11).

Restrained growth in Elk Grove between 1927 and 1945 (Late Elk Grove Historical Period) was due to the Great Depression and World War II. The two principal areas of growth during this period included industrial wine production following the repeal of Prohibition, and the development of new auto-related facilities. Modest municipal and educational facilities were also constructed. The primary historic themes and events characterizing this period include municipal and educational improvements, growth of automobile facilities, industrial wine production and wine industry consolidation, Works Progress Administration efforts, and Japanese internment and its effect on agricultural production (City of Elk Grove 2016:4-18).

Post-World War II growth (Elk Grove's Suburbanization Historical Period ([1946-1967]) in Elk Grove included construction of single-family residential subdivisions and commercial buildings. These developments catered to the dependence on automobiles in the form of sprawling subdivisions and commercial facilities ringed by parking lots. Growth was aided by the 1957 widening of Highway 99 from two to four lanes. Highway 99 provided rapid access to and from Sacramento and led to sustained residential and commercial development during the 1960s and explosive growth toward the end of the 20th century. The three primary historic themes and events characterizing this period are residential suburbs and commercial growth, school development in response to the baby boom, and the decline of Elk Grove's wine production (City of Elk Grove 2016:4-23).

RECORDS SEARCHES AND CONSULTATION

A records search for previously recorded archaeological and historic resources was conducted at the North Central Information Center (NCIC), at California State University, Sacramento, for the Existing Conditions Report for the 2016 General Plan Update. The following information was reviewed as part of the records search:

- ▶ NRHP and CRHR,
- ▶ California Office of Historic Preservation Historic Property Directory,
- ▶ California Inventory of Historic Resources,
- ▶ California State Historic Landmarks,
- ▶ California Points of Historical Interest, and
- ▶ Historic properties reference map.

Archaeological Sites

As stated in the Existing Conditions Report, 37 archeological sites were identified within the General Plan Planning Area but have not been evaluated; one archaeological site has been evaluated and determined not eligible for inclusion in the CRHR (see Table 3.3-1). Because of the sensitive nature of archaeological materials, the location of these sites is not for public disclosure.

Table 3.3-1 Previously Recorded Archaeological Sites

Resource Number	Resource Type
P-34-000007-H	isolate - rusty nail
P-34-000054/CA-SAC-000027	unknown
P-34-000095/CA-SAC-000068	habitation debris - mound
P-34-000127/CA-SAC-000100	unknown
P-34-000128/CA-SAC-000101	unknown
P-34-000145/CA-SAC-000118	habitation debris - midden
P-34-000146/CA-SAC-000119	habitation debris - mound
P-34-000147/CA-SAC-000120	burials - surface indications; habitation debris - mound
P-34-000148/CA-SAC-000121	burials - surface indications; habitation debris - mound
P-34-000162/CA-SAC-000135	lithic scatter - chert & obsidian; habitation debris - mound; other - clam shell; steatite pendant
P-34-000192/CA-SAC-000165	burials; habitation debris - midden
P-34-000238/CA-SAC-000211	burials
P-34-000647/CA-SAC-000523H	railroad grade
P-34-000696/CA-SAC-000541H	privies/dumps/trash scatters; water conveyance system; bedrock milling feature
P-34-000698/CA-SAC-000543H	railroad grade
P-34-000699/CA-SAC-000544H	road
P-34-000700/CA-SAC-000545H	road
P-34-000751/CA-SAC-000576H	foundations
P-34-000755/CA-SAC-000580H	foundations
P-34-000756/CA-SAC-000581H	foundations; habitation debris
P-34-000758	foundations
P-34-000759	bricks
P-34-000760/CA-SAC-000583H	foundations

Resource Number	Resource Type
P-34-000824/CA-SAC-000631H	foundations; privies/dumps/trash scatters
P-34-001095/CA-SAC-000750H	foundations
P-34-001103	pestle
P-34-001104	pestle
P-34-001105/CA-SAC-000754H	foundations
P-34-001191	amethyst bottle fragment
P-34-001192	glass insulator
P-34-001193	aqua glass fragment
P-34-001248/CA-SAC-000799H	foundations; privies/dumps/trash scatters; wells; cisterns; machinery
P-34-001249	foundations
P-34-001353	privies/dumps/trash scatters
P-34-001425/CA-SAC-000859H	trash scatter
P-34-001426/CA-SAC-000860H	privies/dumps/trash scatters
P-34-001968	foundations
P-34-002144/CA-SAC-001089H	well

Source: City of Elk Grove 2016.

Historic-period Features

As stated in the Existing Conditions Report, 65 historic-period features within the General Plan Planning Area have been previously recorded but not evaluated for listing in the NRHP, CRHR, and/or the Elk Grove Register of Historic Resources (see Table 3.3-2). An additional 188 historic-period features have been previously evaluated (see Table 3.3-3); 133 of these are listed in, or recommended eligible for listing in these registers. Historic-period features that have been recommended eligible for, or listed in, any of these registers are considered "historical resources" for the purposes of CEQA.

Table 3.3-2 Previously Recorded Historic-period Features

Resource Name	Resource Location	Resource Type
Machado Dairy	6725 Bilby Rd.	Farm/ranch
P-34-000536	Elk Grove Blvd., Elk Grove	Water conveyance features
P-34-000538	9776 West Stockton Blvd., Elk Grove	Farm/ranch
P-34-000539	9698 Highway 99, Elk Grove	Farm/ranch
P-34-000540	9933 Highway 99, Elk Grove	Farm/ranch
P-34-000541	8533 Poppy Ridge Rd., Elk Grove	Single-family property
P-34-000542	8551 Poppy Ridge Rd., Elk Grove	Single-family property
P-34-000543	7710 Poppy Ridge Rd., Elk Grove	Farm/ranch
P-34-000544	8000 Poppy Ridge Rd., Elk Grove	Single-family property
P-34-000545	10321 Bruceville Rd., Elk Grove	Single-family property
P-34-000546	9225 Bruceville Rd., Elk Grove	Farm/ranch
Nunes Dairy/Johnson Ranch/P-34-000561/CA-SAC-000633H	9854 Bruceville Rd., Elk Grove	Farm/ranch
Nunes Dairy/P-34-000579/CA-SAC-000634H	9854 Bruceville Rd., Elk Grove	Farm/ranch
P-34-000631	9901 Bruceville Rd., Elk Grove	Ancillary building
George Werre Ranch/P-34-000680	9105 Bruceville Rd., Elk Grove	Farm/ranch

Resource Name	Resource Location	Resource Type
Park Meadows 1/P-34-000694/CA-SAC-000540H	W. Stockton Blvd., Elk Grove	Water conveyance features
Mello Dairy/P-34-000697/CA-SAC-000542H	Calvine Rd., Elk Grove	Farm/ranch
P-34-000701	8601 Bow Street, Elk Grove	Farm/ranch
Albert Leavitt House/P-34-000702	8555 East Stockton Rd., Elk Grove	Single-family property
P-34-000703	8610 Bow Street, Elk Grove	Farm/ranch
P-34-000710	7862 Elk Grove-Florin Rd., Elk Grove	Single-family property
Elliot Ranch/P-34-000761	Franklin Rd., Elk Grove	Farm/ranch
Nicholas Ranch Annex/P-34-000766/CA-SAC-000588H	3501 Dwight Rd., Elk Grove	Farm/ranch
Rushmore Residence/P-34-000825/CA-SAC-000632H	5021 Bilby Rd., Franklin	Single-family property
Knopfel Dairy/P-34-000826/CA-SAC-000635H	4831 Bilby Rd., Elk Grove	Farm/ranch
Stoecker House/P-34-000827/CA-SAC-000636H	5107 Bilby Rd., Elk Grove	Single-family property
P-34-000829/CA-SAC-000638H	9853 Franklin Blvd., Elk Grove	Single-family property
P-34-000830/CA-SAC-000639H	Franklin Blvd., Elk Grove	Single-family property
P-34-000831/CA-SAC-000640H	5700 Elk Grove Blvd., Elk Grove	Single-family property
Cow Palace Auction Yard/P-34-001089/CA-SAC-000749H	9720 Webb St., Elk Grove	Farm/ranch
Cow Palace Auction Pavilion/Theater/P-34-001090	9720 Webb St., Elk Grove	Farm/ranch
Cow Palace Covered Corral/P-34-001091	9720 Webb St., Elk Grove	Farm/ranch
Cow Palace Equipment Shed/P-34-001092	9720 Webb St., Elk Grove	Farm/ranch
P-34-001093	9517 Elk Grove Blvd., Elk Grove	Single-family property
P-34-001094	9431 Elk Grove Blvd., Elk Grove	Farm/ranch
P-34-001096	9400 Elk Grove Blvd., Elk Grove	Single-family property
P-34-001097	9727 Waterman Rd., Elk Grove	Single-family property
Hurley-Tracy Transmission Line/P-34-001102	Waterman Rd. and Sheldon Rd.	Transmission line
P-34-001113	10529 Sheldon Rd., Elk Grove	Single-family property
P-34-001175	3779 Poppy Ridge Rd., Elk Grove	Single-family property
P-34-001176/CA-SAC-000789H	8355 Poppy Ridge Rd., Elk Grove	Farm/ranch
P-34-001250	8890 White House Rd., Elk Grove	Commercial building
P-34-001251	8693 Sheldon Rd., Elk Grove	Single-family property
P-34-001252	8651 Sheldon Rd., Elk Grove	Single-family property
P-34-001253	8604 Sheldon Rd., Elk Grove	Single-family property
P-34-001254	8476 Sheldon Rd., Elk Grove	Single-family property

Source: City of Elk Grove 2016

Table 3.3-3 Previously Evaluated Historic-period Features

Resource Name and Type	Resource Location	Historical Resource?
Western Pacific Railroad/P-34-000491/CA-SAC-000464H		No
P-34-000537/Single-family property	9769 Bruceville Rd., Elk Grove	No
Central California Traction Railroad/P-34-000606/CA-SAC-000506H		No
Guttridge Ranch/P-34-000692/CA-SAC-000538H	10653 East Stockton Blvd., Elk Grove	No
Olen Ranch/P-34-000707/CA-SAC-000549H	8860 Bruceville Rd., Elk Grove	No
Upton Ranch/Hrepich Dairy/P-34-000752/CA-SAC-000577H	9646 Stockton Blvd., Elk Grove	No
P-34-001409/Single-family property	8310 Sheldon Rd., Elk Grove	No
P-34-001411/Single-family property	8685 East Stockton Blvd., Elk Grove	No
P-34-001412/Single-family property	8691 East Stockton Blvd., Elk Grove	No
P-34-001414/Single-family property	8711 East Stockton Blvd., Elk Grove	No
P-34-001415/Single-family property	8627 Bow St., Elk Grove	No
P-34-001418/Single-family property	8717 E Stockton Blvd., Elk Grove	No
P-34-001688/Commercial building	9241-9251 Elk Grove Blvd., Elk Grove	No
EC-05-12	N/A	No
Concrete foundation	Bradshaw Rd., Sacramento	No
PA-99-44	Elk Grove Blvd., Elk Grove	No
Bridge No. 24-0155	Grant Line Rd., Elk Grove	No
Bloom House/Single-family property	Hood-Franklin Rd., Elk Grove	No
8159 Sheldon Rd./Single-family property	8159 Sheldon Rd., Elk Grove	No
8165 Sheldon Rd./Single-family property	8165 Sheldon Rd., Elk Grove	No
8169 Sheldon Rd./Single-family property	8169 Sheldon Rd., Elk Grove	No
8686 W Stockton Blvd./Single-family property	8686 W Stockton Blvd., Elk Grove	No
8706 W Stockton Blvd./Single-family property	8706 W Stockton Blvd., Elk Grove	No
8940 Eva Ave./Single-family property	8940 Eva Ave., Elk Grove	No
8992 Elk Grove Blvd./Single-family property	8992 Elk Grove Blvd., Elk Grove	No
9020 Elk Grove Blvd./Single-family property	9020 Elk Grove Blvd., Elk Grove	No
9036 Elk Grove Blvd./Commercial building	9036 Elk Grove Blvd., Elk Grove	No
9065 Elk Grove Blvd.	9065 Elk Grove Blvd., Elk Grove	No
9081 Elk Grove Blvd./Commercial building	9081 Elk Grove Blvd., Elk Grove	No
9089 Elk Grove Blvd./Commercial building	9089 Elk Grove Blvd., Elk Grove	No
9093 Grove St./Single-family property	9093 Grove St., Elk Grove	No
9096 Locust St./Single-family property	9096 Locust St., Elk Grove	No
Foulks Park	9433 Trenholm Dr., Elk Grove	No
Elk Grove Water Works Tower/P-34-004319	9592 School Rd., Elk Grove	No
Frank and Henry Luttg Park	97110 Toscano Dr., Elk Grove	No
9756 Gerber Rd./Single-family property	9756 Gerber Rd., Elk Grove	No
9760 Gerber Rd./Single-family property	9760 Gerber Rd., Elk Grove	No
9800 Gerber Rd./Single-family property	9800 Gerber Rd., Sacramento	No

Resource Name and Type	Resource Location	Historical Resource?
9820 Gerber Rd./Single-family property	9820 Gerber Rd., Sacramento	No
Laguna Creek Bridge	8195 Bradshaw Rd., Elk Grove	No
Structure 13	8195 Bradshaw Rd., Elk Grove	No
8840 E. Stockton Blvd./Religious building	8840 E. Stockton Blvd., Elk Grove	No
9062 Elk Grove Blvd.	9062 Elk Grove Blvd., Elk Grove	No
Batey Chevrolet Showroom site	9101 Elk Grove Blvd., Elk Grove	No
Site of Latta/Evans Residence	9108 Elk Grove Blvd., Elk Grove	No
Spitzer Residence/Single-family property	9704 Kent St., Elk Grove	No
Water Works Pump House/P-34-000649/CA-SAC-000525H	9080 Locust St. (alley), Elk Grove	No
Site of Everson Residence/Commercial building	9044 Elk Grove Blvd., Elk Grove	No
9091 Elk Grove Blvd./Commercial, residential building	9091 Elk Grove Blvd., Elk Grove	No
Lenard Residence	9541 2nd Ave., Elk Grove	Yes
Agnes Baker Residence	9551 2nd Ave, Elk Grove.	Yes
Mr. Stevens Duplex	9558 & 9562 2nd Ave., Elk Grove	Yes
Cables Residence	9563 2nd Ave., Elk Grove	Yes
Stevens Residence	9569 2nd Ave., Elk Grove	Yes
Backer family Residence	9673 2nd Ave., Elk Grove	Yes
Fred Vogt Residence	9578 2nd Ave, Elk Grove	Yes
Wilson Lilloco Residence	9583 2nd Ave, Elk Grove	Yes
Elk Grove Library	9590 2nd Ave, Elk Grove	Yes
Kunsting Residence	4625 Bilby Rd., Elk Grove	Yes
Elliot Ranch Foreman Residence	4629 Bilby Rd., Elk Grove	Yes
Bader Family Residence	9870 Bond Rd., Elk Grove	Yes
P-34-001413/Single-family property	8701 E. Stockton Blvd., Elk Grove	Yes
Elk Grove House (reconstructed)/Educational building	9941 E. Stockton Blvd., Elk Grove	Yes
Rhoads School	9941 E. Stockton Blvd., Elk Grove	Yes
Reese School	9941 E. Stockton Blvd., Elk Grove	Yes
San Joaquin Court & Jail	9941 E. Stockton Blvd., Elk Grove	Yes
Stohlgren/Olson Ranch	9040 Elk Grove-Florin Rd., Elk Grove	Yes
Markofer Residence	10005 Elk Grove-Florin Rd., Elk Grove	Yes
Elk Grove Grammar School	8820 Elk Grove Blvd., Elk Grove	Yes
John Keema Residence	8933 Elk Grove Blvd., Elk Grove	Yes
Clem Residence	8937 Elk Grove Blvd., Elk Grove	Yes
Bartholomew House	8941 Elk Grove Blvd., Elk Grove	Yes
Texaco Service Station/P-34-001682	8950 Elk Grove Blvd., Elk Grove	Yes
Sacramento County Municipal Court/P-34-001683	8970-8978 Elk Grove Blvd., Elk Grove	Yes
Earl Tribble Residence	9141 Elk Grove Blvd., Elk Grove	Yes
Site of Dr. Bradford's Office	9148-52 Elk Grove Blvd., Elk Grove	Yes
9148 Elk Grove Blvd./Single-family property	9148 Elk Grove Blvd., Elk Grove	Yes

Resource Name and Type	Resource Location	Historical Resource?
9152 Elk Grove Blvd./Single-family property	9152 Elk Grove Blvd., Elk Grove	Yes
Foulks/Ronk Residence/P-34-001685	9156 Elk Grove Blvd., Elk Grove	Yes
Percy Webb Residence/P-34-001686	9206 Elk Grove Blvd., Elk Grove	Yes
Blacksmith Shop/P-34-001686	9208 Elk Grove Blvd., Elk Grove	Yes
Gage Residence/P-34-001687	9239 Elk Grove Blvd., Elk Grove	Yes
Reginald Rolfe Residence	9248 Elk Grove Blvd., Elk Grove	Yes
Hunt family residence	9815 Emerald Park Dr., Elk Grove	Yes
Pia Residence	9000 Grove St., Elk Grove	Yes
9097 Grove St./Single-family property	9097 Grove St., Elk Grove	Yes
Elam Residence	9117 Grove St., Elk Grove	Yes
Hoffnungfeld Kongregational Church	9151 Grove St., Elk Grove	Yes
Eisenbiesz Residence	9184 Grove St., Elk Grove	Yes
Glen Womack Residence	9188 Grove St., Elk Grove	Yes
McKinney Residence	9612 Kent St., Elk Grove	Yes
Roden Residence	9625 Kent St., Elk Grove	Yes
Homer Derr Residence	9640 Kent St., Elk Grove	Yes
Everson / Heart Residence	9643 Kent St., Elk Grove	Yes
Alturcher Residence	9651 Kent St., Elk Grove	Yes
Derr Residence	9654 Kent St., Elk Grove	Yes
Elsie Latta Residence	9665 Kent St., Elk Grove	Yes
Crump Residence	9674 Kent St., Elk Grove	Yes
Martin & Lucinda Derr	9688 Kent St., Elk Grove	Yes
Tessen Residence	9692 Kent St., Elk Grove	Yes
Hironymous Residence	9695 Kent St., Elk Grove	Yes
Clyde Colton Residence	9176 Lark St., Elk Grove	Yes
Christensen Residence	9191 Lark St., Elk Grove	Yes
Vernon Coons Residence	9194 Lark St., Elk Grove	Yes
Derr lumber buildings	9055 Locust St., Elk Grove	Yes
First Baptist Church	9131 Locust St., Elk Grove	Yes
William Ehrhardt House/Jungkeit Dairy/P-34-000828/CA-SAC-000637H	4800 Percheron Dr., Elk Grove	Yes
Ehrhardt Shed	Dartmoor Way, Elk Grove	Yes
Ehrhardt Garage	Dartmoor Way, Elk Grove	Yes
Geobel Residence	9545 School St., Elk Grove	Yes
Owen Residence	9548 School St., Elk Grove	Yes
Westlake House	9585 School St., Elk Grove	Yes
Aldritch House	9589 School St., Elk Grove	Yes
Williamson Ranch Packaging Shed	8830 Sharkey Ave., Elk Grove	Yes
P-34-001410/Single-family property	8386 Sheldon Rd., Elk Grove	Yes
Coon's Residence	8936 Sierra St., Elk Grove	Yes

Resource Name and Type	Resource Location	Historical Resource?
Buchanan Residence	8966 Sierra St., Elk Grove	Yes
Gage Ranch Residence	5623 Tegan Rd., Elk Grove	Yes
Lent Ranch/P-34-000523/CA-SAC-000688	10551 W. Stockton Blvd., Elk Grove	Yes
Wackman Ranch/P-34-000693/CA-SAC-000539H	10686 W. Stockton Blvd., Elk Grove	Yes
Elk Grove Grammar School	9392 W. Stockton Blvd., Elk Grove	Yes
Waterman Residence	10130 Waterman Rd., Elk Grove	Yes
Elk Grove Cemetery	8540 Elk Grove Blvd., Elk Grove	Yes
Kirby Ranch/Capital Nursery	8423 Elk Grove Blvd., Elk Grove	Yes
Dunbar Residence	9031 Elk Grove Blvd., Elk Grove	Yes
Ehrhardt / Rhoades Garage	9033 Elk Grove Blvd., Elk Grove	Yes
Fire Shed	9040 Elk Grove Blvd. (alley), Elk Grove	Yes
Warehouse (IOOF Hall)	9045 Elk Grove Blvd., Elk Grove	Yes
Elk Grove Park	9950 Elk Grove-Florin Rd., Elk Grove	Yes
Gage Mansion	9665 Gage St., Elk Grove	Yes
Elk Grove Winery Storage	9678 Railroad Ave., Elk Grove	Yes
EGVA Winery buildings	9723 Railroad Ave., Elk Grove	Yes
Benjamin Hoover Warehouse	9699 Railroad Ave., Elk Grove	Yes
Winemaker Historic District	9676, 9699, 9723 Railroad Ave., Elk Grove	Yes
Southern Pacific Railroad/P-34-000507/CA-SAC-000480H		Yes
Grave of Alexander Hamilton Willard/P-34-002401	Hood Franklin Rd., Elk Grove	No
Joseph Hampton Kerr Homesite	Elk Grove Blvd., Elk Grove	No
Elk Grove Unified School District; Elk Grove Grammar School	Elk Grove Blvd., Elk Grove	No
Elitha Cumi Donner Wilder Grave/P-34-003896	Elk Grove Blvd., Elk Grove	No
N/A	Elk Grove Blvd., Elk Grove	No
Murphy's Corral Marker/ Murphy's Ranch/P-34-003892	Grant Line Rd., Elk Grove	No
Elk Grove Historic District		Yes
Elk Grove Community Methodist Church	8986 Elk Grove Blvd., Elk Grove	Yes
Hogaboom Residence	8995 Grove St., Elk Grove	Yes
Taverner Residence	8998 Elk Grove Blvd., Elk Grove	Yes
Dr. Hugh Beattie Residence	9008 Elk Grove Blvd., Elk Grove	Yes
Wakeman Residence	9024 Elk Grove Blvd., Elk Grove	Yes
Ehrhardt/Rhoades Building	9027 Elk Grove Blvd., Elk Grove	Yes
Hayes Residence	9030 Elk Grove Blvd., Elk Grove	Yes
Hayes Meat Market	9032 Elk Grove Blvd., Elk Grove	Yes
Elk Grove Hotel	9039 Elk Grove Blvd., Elk Grove	Yes
Judge Everson Residence	9040 Elk Grove Blvd., Elk Grove	Yes
Elk Grove IOOF Hall/ Odd Fellows Building	9045 Elk Grove Blvd., Elk Grove	Yes
Toronto Hotel Site; Foulks/Graham Building	9048 Elk Grove Blvd., Elk Grove	Yes
9051 Grove St./Single-family property	9051 Grove St., Elk Grove	Yes

Resource Name and Type	Resource Location	Historical Resource?
Haynes Residence	9060 Grove St., Elk Grove	Yes
Elk Grove Telephone Building	9070 Elk Grove Blvd., Elk Grove	Yes
Elk Grove Bank	9070 Elk Grove Blvd., Elk Grove	Yes
Old Post Office	9072 Elk Grove Blvd., Elk Grove	Yes
Drugstore	9074 Elk Grove Blvd., Elk Grove	Yes
Masonic Lodge Building	9075 Elk Grove Blvd., Elk Grove	Yes
Poston Building Group	9080 Elk Grove Blvd., Elk Grove	Yes
Pierce / Allen Residence	9081 Grove St., Elk Grove	Yes
General Store / Hasman Building	9085 Elk Grove Blvd., Elk Grove	Yes
Markofer Residence	9087 Grove St., Elk Grove	Yes
Warren Shoes	9090 Elk Grove Blvd., Elk Grove	Yes
The Elm/ Commercial building	9093 Elk Grove Blvd., Elk Grove	Yes
Stewart Residence	9094 Elk Grove Blvd., Elk Grove	Yes
Batey Garage	9095 Elk Grove Blvd., Elk Grove	Yes
H.L. Stich Residence	9096 Elk Grove Blvd., Elk Grove	Yes
Batey Chevrolet Showroom	9097 Elk Grove Blvd., Elk Grove	Yes
9101 Grove St./Single-family property	9101 Grove St., Elk Grove	Yes
9109 Grove St./Single-family property	9109 Grove St., Elk Grove	Yes
Brainard/Markofer Residence	9112 Elk Grove Blvd., Elk Grove	Yes
Brainard/Markofer Coach House	9112 Elk Grove Blvd., Elk Grove	Yes
George Markofer Residence	9116 Elk Grove Blvd., Elk Grove	Yes
Elk Grove Methodist Church Parsonage	9120 Elk Grove Blvd., Elk Grove	Yes
First California County Free Library Branch Site	9125 Elk Grove Blvd., Elk Grove	Yes
Owen Residence	9548 School St., Elk Grove	Yes
Wildanger/Frame Residence	9557 School St., Elk Grove	Yes
Upton Residence	9560 School St., Elk Grove	Yes
Poston Residence	9572 School St., Elk Grove	Yes
Ira Jones Residence	9588 School St., Elk Grove	Yes
Stevens/Polhemius Residence	9616 Walnut St., Elk Grove	Yes
McDonald Residence	9620 Gage St., Elk Grove	Yes
Springstead Residence	9621 Walnut St., Elk Grove	Yes
Welch/Coon Residence	9624 Walnut St., Elk Grove	Yes
Lilico Residence	9625 Gage St., Elk Grove	Yes

Source: City of Elk Grove 2016

Tribal Cultural Resources

Native American Consultation

Five Native American tribes have requested Project notification by the City, pursuant to AB 52. The City mailed notification letters to the following tribal representatives on July 9, 2020:

- ▶ Lone Band of Miwok Indians; Sara Dutschke Setshwaelo, Chairperson
- ▶ Wilton Rancheria; Raymond Hitchcock, Chairperson
- ▶ United Auburn Indian Community of the Auburn Rancheria; Gene Whitehouse, Chairperson
- ▶ Shingle Springs Band of Miwok Indians; Regina Cuellar, Chairperson
- ▶ Buena Vista Rancheria; Rhonda Morningstar Pope, Chairperson

No responses were received during the 30-day response period for AB 52 as defined in PRC Section 21080.3.2.

3.3.3 Impacts and Mitigation Measures

METHODOLOGY

This analysis identifies the potential impacts of implementation of the Housing Element and Safety Element Update on archaeological, historical, and tribal cultural resources within the housing sites. This analysis is based on a review of the General Plan EIR.

The impact analysis considers the known archaeological, historical, and tribal cultural resource environmental setting in the area, as well as the potential for previously undocumented resources, including human remains, and physical effects (i.e., disturbance, material alteration, demolition) to known and previously undocumented cultural resources that could result from implementation of the Project. The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to cultural resources.

PRC Section 21083.2(g) defines a “unique archaeological resource” as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following CRHR-related criteria: (1) that it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; (2) that it has a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) that it is directly associated with a scientifically recognized important prehistoric or historic event or person. An impact on a resource that is not unique is not a significant environmental impact under CEQA (State CEQA Guidelines Section 15064.5[c][4]). If an archaeological resource qualifies as a resource under CRHR criteria, then the resource is treated as a unique archaeological resource for the purposes of CEQA.

PRC Section 21074 defines “tribal cultural resources” as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” that are listed or determined eligible for listing in the CRHR, listed in a local register of historical resources, or otherwise determined by the lead agency to be a tribal cultural resource.

For the purposes of the impact discussion, “historical resource” is used to describe built-environment historic-period resources. Archaeological resources (both prehistoric and historic-period), which may qualify as “historical resources” pursuant to CEQA, are analyzed separately from built-environment historical resources.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, the Project would result in a significant impact on cultural resources if it would:

- ▶ cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- ▶ cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- ▶ cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe; or
- ▶ disturb any human remains, including those interred outside of dedicated cemeteries.

ISSUES NOT DISCUSSED FURTHER

All potential archaeological, historical, and tribal cultural resources issues identified in the significance criteria are evaluated below.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of a Historical Resource

General Plan EIR Impact 5.5.1 determined that implementation of the General Plan could result in impacts to historical resources and identified that implementation of Mitigation Measure 5.5.1a would reduce this impact to a less-than-significant level. Future development associated with the Housing Element and Safety Element Update could be located on properties that contain previously unevaluated historic-age buildings or structures which could result in damage to or destruction to these features. If they are found to be eligible for listing in the NRHP, CRHR, or the Elk Grove Register of Historic Resources, the impact to historical resources would be potentially significant. However, all projects within the city would be subject to adopted General Plan Mitigation Measure 5.5.1a. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. The Project would result in a **less-than-significant** impact to historical resources.

Impact 5.5.1 of the General Plan EIR evaluated the potential for implementation of the General Plan to result in impacts to historical resources. This impact was determined to be potentially significant, however implementation of Mitigation Measure 5.5.1a and General Plan Policy HR-2-1 that requires the protection and preservation of historic resources would reduce the impact to a less-than-significant level. All development projects within the City would be subject to adopted Mitigation Measure 5.5.1a which requires that future projects complete cultural resources studies to identify cultural resources, evaluate potential effects, and develop appropriate mitigation.

Adopted Mitigation Measure 5.5.1a

Prior to the approval of subsequent development projects in the Planning Area, a detailed cultural resources study of the subject property shall be conducted by the applicant and peer reviewed by the City. The cultural resources study shall identify, evaluate, and mitigate impacts to cultural resources as defined by CEQA and/or the NHPA. Mitigation methods to be employed include, but are not limited to, the following:

- ▶ Redesign of the project to avoid the resource. The resource site shall be deeded to a nonprofit agency to be approved by the City for maintenance of the site.
- ▶ If avoidance is determined to be infeasible by the City, the resource shall be mapped, stabilized, and capped pursuant to appropriate standards.

- ▶ If capping is determined infeasible by the City, the resource shall be recovered to appropriate standards.

Historical resources include standing buildings (e.g., houses, barns, cabins) and intact structures (e.g., dams, bridges, water conveyance systems). Historical resources dating to Elk Grove's historic periods are important to identify and protect. Resource types from the early Elk Grove historical period (1868-1892), middle Elk Grove historical period (1893-1926), late Elk Grove historical period (1927-1945), and Elk Grove's suburbanization historical period (1946-1967) include early ranches, transportation features, cemeteries, and agricultural, residential, educational, commercial, industrial, social, and municipal properties.

As described previously, 65 historic-period features within the General Plan Planning Area have been previously recorded but not evaluated; an additional 188 historic-period features have been previously evaluated for listing in the NRHP, CRHR, and/or the Elk Grove Register of Historic Resources, of which 133 have been recommended eligible for or are listed on these registers. Additionally, there are 13 potential housing sites containing historic-age (over 45 years old) buildings within the Project area (see Table 3.3-4). Due to the programmatic nature of this document, it is not known if or when these sites might be developed; therefore, the buildings were not evaluated for NRHP- or CRHR-eligibility at the time of preparation of this EIR.

Table 3.3-4 Potential Housing Sites Containing Historic-age Buildings

Map ID	General Location	Structure Type	Age
E-3	Bruceville Road south of Poppy Ridge Road	Existing residences	Post-1967
E-12	SEPA, Bruceville Meadows	Existing buildings	Pre-1966
E-14	Elk Grove Florin Road at Brown Road	Existing residences	Post-1966
C-2	End of Dunisch Road	Existing residences	Pre-1966
C-5	SEC Sheldon Road and East Stockton Boulevard	Existing residences	Some Pre-1964 Some Post-1966
C-7	Waterman Road at Rancho Drive	Existing residences	Pre-1964
C-8	8994 Calvine Road	Existing residence	Post-1966
C-9	8770 Calvine Road	Existing residence	Post-1966
C-14	9343 E Stockton Boulevard	Existing residence	Post-1967
C-18	Bow Street Northwest	Existing residences	Some Pre-1966 Some Post-1966
C-22	Calvine Road and Jordan Ranch Road	Existing residence	Post-1966
C-24	SWC Lotz Parkway and Whitelock Parkway	Ancillary structure	Post-1967
C-25	Eden Gardens	Existing residences and commercial	Some Post-1966 Some Post-1993

Source: Data compiled by Ascent Environmental in 2020

Development of residences or emergency access improvement under the Housing Element and Safety Element Update could result in damage to or destruction of a building or structure that has not yet been evaluated for historical significance. Implementation of the Project would be subject to adopted General Plan Mitigation Measure 5.5.1a, which would avoid potential impacts to historical resources. This mitigation measure would be implemented through subsequent housing application submittals to the City for design review or projects involving emergency access improvements that include historic building evaluations and identification of measures to mitigate significant historic resource impacts. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. With implementation of adopted General Plan Mitigation Measure 5.5.1a, the Housing Element and Safety Element Update would result in a **less-than-significant** impact to historical resources.

Mitigation Measures

No new mitigation is required beyond compliance with General Plan Policy HR-2-1 and implementation of adopted General Plan Mitigation Measure 5.5.1a.

Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources

General Plan EIR Impact 5.5.1 determined that implementation of the General Plan could result in significant impacts to archaeological resources and identified that implementation of Mitigation Measures 5.5.1a and 5.5.1b would reduce this impact to a less-than-significant level. Future development associated with the Housing Element and Safety Element Update could be located on properties that contain known or unknown archaeological resources and ground-disturbing activities could result in discovery or damage of yet undiscovered archaeological resources as defined in CEQA Guidelines Section 15064.5. This would be a potentially significant impact. However, all projects within the City would be subject to adopted General Plan Mitigation Measures 5.5.1a and 5.5.1b. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. The Project would result in a **less-than-significant** impact to archaeological resources.

Impact 5.5.1 of the General Plan EIR evaluated the potential for implementation of the General Plan to result in impacts to archaeological resources. This impact was determined to be potentially significant, however implementation of Mitigation Measures 5.5.1a and 5.5.1b would reduce the impact to a less-than-significant level. All development projects within the City would be subject to adopted Mitigation Measures 5.5.1a and 5.5.1b. Mitigation Measure 5.5.1a requires that future projects complete cultural resources studies to identify cultural resources, evaluate potential effects, and develop appropriate mitigation. Mitigation Measure 5.5.1b addresses the potential for encountering undiscovered cultural resources.

Adopted Mitigation Measure 5.5.1a

Prior to the approval of subsequent development projects in the Planning Area, a detailed cultural resources study of the subject property shall be conducted by the applicant and peer reviewed by the City. The cultural resources study shall identify, evaluate, and mitigate impacts to cultural resources as defined by CEQA and/or the NHPA.

Mitigation methods to be employed include, but are not limited to, the following:

- ▶ Redesign of the project to avoid the resource. The resource site shall be deeded to a nonprofit agency to be approved by the City for maintenance of the site.
- ▶ If avoidance is determined to be infeasible by the City, the resource shall be mapped, stabilized, and capped pursuant to appropriate standards.
- ▶ If capping is determined infeasible by the City, the resource shall be recovered to appropriate standards.

Adopted Mitigation Measure 5.5.1b

If cultural resources or tribal cultural resources are discovered during grading or construction activities within the Planning Area, work shall halt immediately within 50 feet of the discovery, the Planning Department shall be notified, and a professional archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in archaeology shall be retained to determine the significance of the discovery.

If resources are determined to be potentially significant, the City shall require the preparation of a treatment plan and report of findings for cultural and tribal cultural resources. The City and the applicant shall consult and agree to implement all measures the City deems feasible. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The applicant shall be required to implement measures necessary for the protection and documentation of cultural resources.

The Project is located in a region where prehistoric and historic-period archaeological resources have been recorded and there remains a potential that undocumented resources could be unearthed or otherwise discovered during

ground-disturbing and construction activities. Prehistoric or ethnohistoric materials might include flaked stone tools, tool-making debris, stone milling tools, shell or bone items, and fire-affected rock or soil darkened by cultural activities (midden); examples of significant discoveries would include villages and cemeteries. Historic-period materials might include metal, glass, or ceramic artifacts; examples of significant discoveries might include former privies or refuse pits. Development of residences or emergency access improvements under the Housing Element and Safety Element Update would result in soil disturbance and because of the possible presence of undocumented cultural resources within the Project site, which could destroy or damage archaeological resources. Implementation of the Project would be subject to adopted General Plan Mitigation Measures 5.5.1a and 5.5.1b, which would avoid potential impacts to archaeological resources. These mitigation measure would be implemented through subsequent housing application submittals to the City for design review or projects involving emergency access improvements that include archaeological evaluations and identification of measures to address archaeological resource impacts. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. With implementation of adopted General Plan Mitigation Measures 5.5.1a and 5.5.1b, the Housing Element and Safety Element Update would result in a **less-than-significant** impact to archaeological resources.

Mitigation Measures

No new mitigation is required beyond implementation of adopted General Plan EIR Mitigation Measures 5.5.1a and 5.5.1b.

Impact 3.3-3: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource

Because no California Native American tribes responded to AB 52 notification letters, no tribal cultural resources were identified. It is possible that tribal cultural resources could be identified during analysis of subsequent projects associated with the Housing Element or Safety Element Update. General Plan EIR Impact 5.5.1 determined that implementation of the General Plan could result in impacts to tribal cultural resources and identified that implementation of Mitigation Measures 5.5.1a and 5.5.1b would be required. However, compliance with PRC Section 21080.3.2 and Section 21084.3 (a) would make this impact less than significant. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. The Project would result in a **less-than-significant** impact to tribal cultural resources.

Impact 5.5.1 of the General Plan EIR evaluated the potential for implementation of the General Plan to result in impacts to tribal cultural resources. This impact was determined to be potentially significant and required the implementation of Mitigation Measures 5.5.1a and 5.5.1b. However, this mitigation is not required because compliance with PRC Section 21080.3.2 and Section 21084.3 (a) would provide the same level of protection for tribal cultural resources.

As detailed above, the City of Elk Grove sent letters to five tribal representatives in compliance with AB 52. No response was received during the 30-day response period for AB 52 as defined in PRC Section 21080.3.2. This attempt at consultation resulted in the identification of no resources on the Project site considered to be TCRs as described under AB 52 and defined in PRC Section 21074. Nevertheless, it is possible that subsequent discretionary projects upon annexation to the City of Elk Grove may be required to prepare site-specific project-level analysis to fulfill CEQA requirements, which may include additional AB 52 consultation that could lead to the identification of TCRs.

California law recognizes the need to identify and protect TCRs; the procedures for the treatment of Native American resources are contained in California PRC 21081.3.1.

- ▶ Within 14 days of determining that a project application is complete, or to undertake a project, the lead agency must provide formal notification, in writing, to the tribes that have requested notification of proposed projects in the lead agency's jurisdiction. If it wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. The lead agency must begin the consultation process with the tribes that have requested consultation within 30 days of receiving the request for consultation. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

- ▶ Public agencies shall, when feasible, avoid damaging effects to any TCR (PRC Section 21084.3 (a)). If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process, new provisions in the PRC describe mitigation measures that, if determined by the lead agency to be feasible, may avoid or minimize the significant adverse impacts (PRC Section 21084.3 (b)). Examples include:
 1. Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 2. Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - (A) Protecting the cultural character and integrity of the resource
 - (B) Protecting the traditional use of the resource
 - (C) Protecting the confidentiality of the resource.
 3. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 4. Protecting the resource.

Compliance with California PRC 21080.3.1 would provide an opportunity to avoid or minimize the disturbance of previously unknown TCRs, and to appropriately treat any that are discovered. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with California PRC 21081.3 and implementation of adopted Mitigation Measures 5.5.1a and 5.5.1b.

Impact 3.3-4: Disturb Human Remains

Un-marked human interments are known to exist in Elk Grove and the surrounding area. It is possible that ground-disturbing construction activities associated with the Housing Element and Safety Element Update could uncover previously unknown human remains. General Plan EIR Impact 5.5.1 determined that implementation of the General Plan could result in impacts to tribal cultural resources and identified that implementation of Mitigation Measure 5.51b would be required. However, compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would make this impact less than significant. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. The Project would result in a **less-than-significant** impact to human.

Impact 5.5.1 of the General Plan EIR evaluated the potential for implementation of the General Plan to result in impacts to human remains. This impact was determined to be potentially significant and required the implementation of Mitigation Measure 5.5.1b. However, this mitigation is not required because compliance with California Health and Safety Code Section 7050.5 and California PRC Section 5097 would provide the same level of protection for human remains.

Un-marked human interments are known to exist in Elk Grove and have been encountered during ground-disturbing activities, particularly in the western portion of Elk Grove, closer to the Sacramento River. Because the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites, there is a possibility that unmarked, previously unknown Native American or other graves could be present within future housing development or emergency access improvements and could be uncovered by Project-related construction activities.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Section 7050.5 and California PRC Section 5097.

These statutes require that, if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the appropriate County coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, NAHC shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings and recommendations of the NAHC-designated Most Likely Descendant, the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. Therefore, there is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with California Health and Safety Code Section 7050.5 and California PRC Section 5097.

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3.4 BIOLOGICAL RESOURCES

This section addresses common and sensitive biological resources that could be affected by implementation of the Housing Element and Safety Element Update (Project). The data reviewed in preparation for this analysis included:

- ▶ results of California Natural Diversity Database (CNDDDB) record search of the Sacramento East, Carmichael, Buffalo Creek, Florin, Elk Grove, Sloughouse, Bruceville, Galt, and Clay U.S. Geological Survey 7.5-minute quadrangles (CNDDDB 2020);
- ▶ results of California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants record search of the Sacramento East, Carmichael, Buffalo Creek, Florin, Elk Grove, Sloughouse, Bruceville, Galt, and Clay U.S. Geological Survey 7.5-minute quadrangles (CNPS 2020);
- ▶ an official list of federal candidate, proposed, threatened, and endangered species that could be affected by projects in the City of Elk Grove obtained from USFWS Information for Planning and Consultation (IPaC) electronic records search (USFWS 2020);
- ▶ *City of Elk Grove General Plan* (City of Elk Grove 2019); and
- ▶ aerial photographs of the housing sites.

No comments pertaining to biological resources were received in response to the notice of preparation (NOP).

3.4.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 U.S. Code [U.S.C.] Section 1531 et seq.), USFWS regulates the taking of species listed in the ESA as threatened or endangered. In general, persons subject to ESA (including private parties) are prohibited from “taking” endangered or threatened fish and wildlife species on private property, and from “taking” endangered or threatened plants in areas under federal jurisdiction or in violation of State law. Under Section 9 of the ESA, the definition of “take” is to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS has also interpreted the definition of “harm” to include significant habitat modification that could result in take.

Section 10 of the ESA applies if a nonfederal agency is the lead agency for an action that would result in take and no other federal agencies are involved in permitting or funding the action. Section 7 of the ESA applies if a federal discretionary action is required (e.g., a federal agency must issue a permit), in which case the involved federal agency must consult with USFWS if the involved federal agency determines that the project may affect a listed species or destroy or adversely modify designated critical habitat.

Clean Water Act

Section 404 of the Clean Water Act (CWA) (33 U.S.C. Section 1344) requires project proponents to obtain a permit from the U.S. Army Corps of Engineers (USACE) before performing any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Many surface waters and wetlands in California meet the criteria for waters of the United States. In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate regional water quality control board (RWQCB) indicating that the action would uphold State water quality standards.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. Sections 703–712), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it will be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, “take” is defined as “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities.” A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations, Section 10.13. The list includes nearly all birds native to the United States.

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050–2115.5), a permit from CDFW is required for projects that could result in the take of a plant or animal species that is listed by the State as threatened or endangered. Under CESA, “take” is defined as an activity that would directly or indirectly kill an individual of a species but does not include “harm” or “harass,” as does the federal definition. As a result, the threshold for take is higher under CESA than under the federal ESA. Authorization for take of State-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit. CESA mandates that State agencies should not approve projects that would take threatened or endangered species if that take would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy.

California Fish and Game Code Sections 3503 and 3503.3—Protection of Bird Nests and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.3 of the code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

Fully Protected Species under the California Fish and Game Code

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take.

California Native Plant Protection Act of 1977

The California Native Plant Protection Act (NPPA) (California Fish and Game Code, Sections 1900–1913) prohibits importation of rare and endangered plants into California, take of rare and endangered plants, and sale of rare and endangered plants. CESA defers to the NPPA, which ensures that State-listed plant species are protected when State agencies are involved and projects are subject to CEQA. Plants listed as rare under the NPPA are not protected under CESA but rather may receive protection in response to potentially significant impacts, in accordance with CEQA.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.), waters of the State fall under the jurisdiction of the appropriate RWQCB. RWQCBs must prepare and periodically update water quality control plans (basin plans). Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control point and nonpoint sources of pollution to achieve and maintain these standards. The RWQCB’s jurisdiction includes federally protected waters, as well as areas that meet the definition of “waters of the State.” “Waters of the State” is defined as any surface water or groundwater, including saline waters, within the

boundaries of the State. RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401 of the CWA provided they meet the definition of waters of the State. The California Water Code generally regulates more substances contained in discharges and defines discharges to receiving waters more broadly than does the CWA. Actions that affect waters of the State, including wetlands, must meet the RWQCB's waste discharge requirements.

LOCAL

City of Elk Grove General Plan

The *City of Elk Grove General Plan Community and Resource Protection* chapter (City of Elk Grove 2019) includes policies and standards aimed at reducing development impacts on native and nonnative habitats, plants, and animals. The Community and Resource Protection element ensures careful management and protection of the City's natural heritage. The following General Plan policies and standards are relevant to biological resources.

- ▶ **Policy NR-1-2:** Preserve and enhance natural areas that serve, or may potentially serve, as habitat for special-status species. Where preservation is not possible, require that appropriate mitigation be included in the project.
 - **Standard NR-1.2a:** Require a biological resources evaluation for private and public development projects in areas identified to contain or possibly contain special-status plant and animal species.
 - **Standard NR-1.2b:** Require development projects to retain movement corridor(s) adequate (both in size and in habitat quality) to allow for the continued wildlife use based on the species anticipated in the corridor.
 - **Standard NR-1.2c:** Development adjacent to a natural stream(s) shall provide a "stream buffer zone" along the stream. "Natural streams" shall be generally considered to consist of the following, subject to site-specific review by the City: Deer Creek, Elk Grove Creek, Laguna Creek and its tributaries, Morrison Creek, Strawberry Creek, White House Creek.

The following are examples of desired features for this transition zone; the specific design for each transition zone shall be approved on a case-by-case basis by the City.

Stream buffer zones shall measure at least 50 (fifty) feet from the stream centerline (total width of 100) feet or more, depending on the characteristics of the stream, and shall include:

1. Sufficient width for a mowed fire-break (where necessary), access for channel maintenance and flood control, and for planned passive recreation uses.
 2. Sufficient width to provide for:
 - a. Quality and quantity of existing and created habitat,
 - b. Presence of species as well as species sensitivity to human disturbance,
 - c. Areas for regeneration of vegetation,
 - d. Vegetative filtration for water quality,
 - e. Corridor for wildlife habitat linkage,
 - f. Protection from runoff and other impacts of urban uses adjacent to the corridor,
 - g. Trails and greenbelts.
 3. The stream buffer zone shall not include above ground water quality treatment structures designed to meet pollutant discharge requirements.
- ▶ **Policy NR-1-4:** Avoid impacts to wetlands, vernal pools, marshland, and riparian (streamside) areas unless shown to be technically infeasible. Ensure that no net loss of wetland areas occurs, which may be accomplished by avoidance, revegetation, restoration on-site or through creation of riparian habitat corridors, or purchase of credits from a qualified mitigation bank.

- ▶ **Policy NR-1-6:** Encourage the retention of natural stream corridors, and the creation of natural stream channels where improvements to drainage capacity are required.
 - **Standard NR 1-6a:** Stream crossings shall be minimized and be aesthetically compatible with the natural appearance of the stream channel. The use of bridges and other stream crossings with natural (unpaved) bottoms shall be encouraged to minimize impacts to natural habitat.
 - **Standard NR 1-6b:** Uses in the stream corridors shall be limited to recreation and agricultural uses compatible with resource protection and flood control measures. Roads, parking, and associated fill slopes shall be located outside of the stream corridor, except at stream crossings.
 - **Standard NR 1-6c:** Open space lands within a stream corridor shall be required to be retained as open space as a condition of development approval for projects that include a stream corridor. Unencumbered maintenance access to the stream shall be provided.
 - **Standard NR 1-6d:** To the extent possible, retain natural drainage courses in all cases where preservation of natural drainage is physically feasible and consistent with the need to provide flood protection. Where a stream channel is to be created, such man-made channels shall be designed and maintained such that they attain functional and aesthetic attributes comparable to natural channels.
- ▶ **Policy NR-1-9:** Encourage development clustering where it would facilitate on-site protection of woodlands, grasslands, wetlands, stream corridors, scenic areas, or other appropriate features such as active agricultural uses and historic or cultural resources under the following conditions and requirements. Clustering shall not be allowed in the Rural Area.
 - Urban infrastructure capacity is available for urban use.
 - On-site resource protection is appropriate and consistent with other General Plan policies.
 - The architecture and scale of development are appropriate for and consistent with the intended character of the area.
 - Development rights for the open space area are permanently dedicated and appropriate long-term management, with funding in perpetuity, is provided for by a public agency or another appropriate entity.
- ▶ **Policy NR-2-1:** Preserve large native oak and other native tree species as well as large nonnative tree species that are an important part of the City's historic and aesthetic character. When reviewing native or nonnative trees for preservation, consider the following criteria:
 - Health of the tree
 - Safety hazards posed by the tree
 - Suitability for preservation in place
 - Biological value
 - Aesthetic value
 - Shade benefits
 - Water quality benefits
 - Air quality benefits (pollutant reduction)
- ▶ **Policy NR-2-4:** Preserve and plant trees in appropriate densities and locations to maximize energy conservation and air quality benefits.
- ▶ **Policy NR-2-5:** Ensure that trees that function as an important part of the City's or a neighborhood's aesthetic character or as natural habitat on public and private land are retained or replaced to the extent possible during the development of new structures, roadways (public and private, including roadway widening), parks, drainage channels, and other uses and structures.

- ▶ **Policy NR-2-6:** Promote the planting of drought-resistant shade trees with substantial canopies as part of private development projects and require, where feasible, site design that uses trees to shade rooftops, parking facilities, streets, and other facilities.

City of Elk Grove Municipal Code Chapter 16.130: Swainson's Hawk Impact Mitigation Fees

Chapter 16.130 mitigates impacts from typical urban development projects and requires mitigation for the loss of Swainson's hawk (*Buteo swainsoni*) habitat at a 1:1 ratio. Mitigation can be achieved through purchase of City-owned credits for projects 40 acres or less. For projects larger than 40 acres, options for achieving mitigation through the code include the direct transfer to the City or a CDFW-approved conservator of a Swainson's hawk habitat conservation easement along with an easement monitoring endowment; or the purchase of credits at a CDFW-approved conservation bank. The easement must be surveyed to determine whether it is suitable Swainson's hawk foraging habitat.

While purchase of credits or transfer of habitat conservation easements would be required for impacts on Swainson's hawk habitat, Chapter 16.130 does not preclude the City Council's consideration or approval of other means of mitigating significant impact or significant cumulative impact on Swainson's hawk foraging habitat or limit the City Council's authority to override mitigation measures for reasons permitted by CEQA.

City of Elk Grove Municipal Code Chapter 19.12: Tree Preservation and Protection

Chapter 19.12 provides regulations for tree preservation and protection.

The regulations apply to four types of trees as follows:

- ▶ landmark trees, which are trees specifically identified for protection by the City Council;
- ▶ trees of local importance, which are trees of specific varieties greater than 6 inches in diameter;
- ▶ secured trees, which are trees that were protected as part of the development process for residential subdivisions and commercial developments; and
- ▶ trees on City property or in the public right-of-way.

Work on or removal of any of these four types of trees requires prior approval in the form of a Tree Permit from the City of Elk Grove. Project Applicants shall contact the City's Current Planning Division to determine whether their tree requires a Tree Permit prior to completing work.

Arborist Review

Prior to the consideration of a request for tree removal by the designated approving authority or grading within the critical root zone of a qualified tree, the Applicant shall retain an International Society of Arboriculture certified arborist to prepare a report. The report shall identify the basis, if any for supporting the removal of the qualified tree(s) and shall be subject to review by the City Arborist. The arborist report shall include an analysis of the following factors:

- ▶ the condition of the tree with respect to disease, general health, damage, structural integrity, and whether or not the tree acts as a host for an organism that is parasitic to another species of tree that is in danger of being exterminated by the parasite;
- ▶ the number of existing trees on the subject property, on adjacent property, and immediately proximate to the subject tree(s) as deemed relevant by the City Arborist, and the effect of the tree removal upon public health, safety, and prosperity of surrounding trees;
- ▶ the number of healthy trees that a given parcel of land will support, with and without the proposed development;
- ▶ the effect of tree removal on soil stability/erosion, particularly near water courses, near drainage ditches, or on steep slopes, or the effect on runoff interception;
- ▶ present and future shade potential with regard to solar heating and cooling;

- ▶ identification of alternatives that would allow for the preservation of the tree(s) proposed for removal; and
- ▶ any other information the City Arborist finds pertinent (e.g., site conditions, other vegetation, and utility service).

Mitigation for Tree Loss

As part of the approval of a tree permit for removal of a qualified tree, the designated approving authority shall require mitigation for the loss of the tree consistent with Chapter 19.12, Article IV (Mitigation for Tree Loss). The requirement for mitigation may be waived under those circumstances as provided in Section 19.12.180 (Alternative mitigation requirements). Mitigation for qualified tree loss shall be provided at a ratio of 1 new inch diameter at standard height (i.e., the diameter of a tree measured at four and one-half feet above the natural grade; DSH) of tree for each inch DSH lost (1:1 ratio) unless alternative mitigation is approved by the City.

3.4.2 Environmental Setting

LAND COVER

Land cover types within the City of Elk Grove planning area include urbanized land cover, natural land cover, agricultural land cover, and aquatic land cover types. Land cover types within the planning area have been described in the City of Elk Grove GPU EIR (City of Elk Grove 2018). The existing and candidate housing sites (hereafter, housing sites) are located primarily within urban and rural development areas; however, some of the parcels within the housing sites support annual grassland, cropland, and irrigated pasture land cover. Land cover types that occur within the housing sites are described below.

Urbanized Land Cover Types

Urban

Urban land cover consists of roadways, buildings, structures, routinely disturbed areas, recreation fields, lawns, and landscaped vegetation. Vegetation within urban areas is generally dominated by weedy herbs and ornamental tree and shrub species (e.g., *Eucalyptus* spp., Italian cypress [*Cupressus sempervirens*], sycamore/plane tree [*Platanus* sp.], crape myrtle [*Lagerstroemia* spp.], privet [*Ligustrum* spp.], rosemary [*Rosmarinus officinalis*]); however, native trees are also present (e.g., oaks [*Quercus* spp.]).

Urban areas are characterized by relatively high levels of disturbance (e.g., roads, highways, human activity) and as a result, these areas generally do not provide high quality habitat for wildlife. However, some special-status species are known to use marginal habitat within or adjacent to existing developed areas (e.g., ruderal grassland, large urban trees), including but not limited to burrowing owl (*Athene cunicularia*), Swainson's hawk, and nesting birds protected by the California Fish and Game Code and the federal MBTA.

Rural Development

Rural development consists of rural residences, generally in lower densities than urban housing areas. Annual grassland is common in areas surrounding rural residences, and some of these grasslands may contain vernal pools, seasonal wetlands, irrigation ditches, and other aquatic habitat features.

Natural Land Cover Types

Annual Grassland

Annual grassland in the housing sites is typically dominated by annual nonnative grass and forb species, including Italian ryegrass (*Festuca perennis*), wild oats (*Avena fatua*), soft chess (*Bromus hordeaceus*), rose clover (*Trifolium hirtum*), vetch (*Vicia* spp.), and curly dock (*Rumex crispus*). Oak and Eucalyptus trees may be scattered throughout this habitat, and vernal pools and seasonal wetlands may also be present.

Agricultural Land Cover Types

Cropland

Cropland within the housing sites may include irrigated hayfields or row and field crops. Crop types typically include wheat (*Triticum aestivum*), alfalfa (*Medicago sativa*), sorghum (*Sorghum bicolor*), tomato (*Lycopersicon esculentum*), and various other vegetables.

Irrigated Pasture

Irrigated pasture within the housing sites typically includes a mix of native and nonnative perennial grasses and legumes, including ryegrass (*Festuca* spp.), dallisgrass (*Paspalum* spp.), oat (*Avena* spp.), and clover (*Trifolium* spp.).

SENSITIVE BIOLOGICAL RESOURCES

Special-Status Species

Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, State, or local resource agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- ▶ officially listed by California or the federal government as endangered, threatened, or rare;
- ▶ a candidate for State or federal listing as endangered, threatened, or rare;
- ▶ taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in CCR Section 15380 of the State CEQA Guidelines;
- ▶ species identified by CDFW as species of special concern;
- ▶ species listed as fully protected under the California Fish and Game Code;
- ▶ species afforded protection under local planning documents; and
- ▶ taxa considered by CDFW to be “rare, threatened, or endangered in California” and assigned a California Rare Plant Rank (CRPR). The CDFW system includes rarity and endangerment ranks for categorizing plant species of concern, summarized as follows:
 - CRPR 1A - plants presumed to be extinct in California;
 - CRPR 1B - plants that are rare, threatened, or endangered in California and elsewhere;
 - CRPR 2A - plants presumed to be extinct in California but that are more common elsewhere;
 - CRPR 2B - plants that are rare, threatened, or endangered in California but more common elsewhere;
 - CRPR 3 - plants about which more information is needed (a review list); and
 - CRPR 4 - plants of limited distribution (a watch list).

All plants with a CRPR are considered “special plants” by CDFW. The term “special plants” is a broad term used by CDFW to refer to all of the plant taxa inventoried in CDFW’s CNDDDB, regardless of their legal or protection status. Plants ranked as CRPR 1A, 1B, 2A, or 2B may qualify as endangered, rare, or threatened species within the definition of CEQA Guidelines Section 15380. CDFW recommends that potential impacts on CRPR 1 and 2 species be evaluated in CEQA documents. In general, CRPR 3 and 4 species do not meet the definition of endangered, rare, or threatened pursuant to CEQA Guidelines Section 15380. However, these species may be evaluated by the lead agency on a case-by-case basis.

The term “California species of special concern” is applied by CDFW to animals not listed under ESA or CESA but that are considered to be declining at a rate that could result in listing or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW’s fully protected status was California’s first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as

threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time, and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Of the 20 special-status plant species that are known to occur within the nine USGS 7.5-minute quadrangles surrounding the planning area, eight species were determined to have potential to occur in the housing sites based on the presence of habitat suitable for the species (CNDDDB 2020, CNPS 2020, Table 3.4-1). Of the 44 special-status wildlife species that are known to occur within the nine USGS quadrangles surrounding the planning area, 14 species were determined to have potential to occur in the housing sites based on the presence of habitat suitable for the species (CNDDDB 2020, Table 3.4-2). Tables 3.4-1 and 3.4-2 describe the species’ regulatory status, habitat, and potential for occurrence.

Table 3.4-1 Special-Status Plant Species Known to Occur in the Vicinity of the Planning Area and Their Potential for Occurrence in the Housing Sites

Species	Listing Status ¹ Federal	Listing Status ¹ State	CRPR	Habitat	Potential for Occurrence ²
Watershield <i>Brasenia schreberi</i>	–	–	2B.3	Aquatic from permanent water bodies both natural and artificial in California. 100–7,200 feet in elevation. Blooms June–September.	Not expected to occur. The housing sites do not contain aquatic habitat that is suitable for this species.
Bristly sedge <i>Carex comosa</i>	–	–	2B.1	Lake margin marshes; site below sea level is on a Delta island. -16–5,315 feet in elevation. Blooms May–September.	Not expected to occur. The housing sites do not contain marsh habitat that is suitable for this species.
Bolander's water-hemlock <i>Cicuta maculata</i> var. <i>bolanderi</i>	–	–	2B.1	Marshes and swamps, fresh or brackish water. 0–656 feet in elevation. Blooms July–September.	Not expected to occur. The housing sites do not contain marsh habitat
Peruvian dodder <i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	–	–	2B.2	Freshwater marsh. 49–919 feet in elevation. Blooms July–October.	Not expected to occur. The housing sites do not contain marsh habitat
Dwarf downingia <i>Downingia pusilla</i>	–	–	2B.2	Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 3–1,608 feet in elevation. Blooms March–May.	May occur. The housing sites may contain seasonal wetland habitat (e.g., vernal pools) suitable for this species.
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	–	SE	1B.2	Clay soils; usually in vernal pools, sometimes on lake margins. 33–7,792 feet in elevation. Blooms April–August.	May occur. The housing sites may contain seasonal wetland habitat (e.g., vernal pools) suitable for this species.
Woolly rose-mallow <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	–	–	1B.2	Moist, freshwater-soaked riverbanks and low peat islands in sloughs; can also occur on riprap and levees. In California, known from the delta watershed. 0–509 feet in elevation. Blooms June–September.	Not expected to occur. The housing sites do not contain aquatic habitat (e.g., streambanks with associated levees) suitable for this species.
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	–	–	1B.2	Restricted to the edges of vernal pools in grassland. 98–328 feet in elevation. Blooms March–May.	May occur. The housing sites may contain seasonal wetland habitat (e.g., vernal pools) suitable for this species.
Alkali-sink goldfields <i>Lasthenia chrysantha</i>	–	–	1B.1	Vernal pools. Alkaline. 0–656 feet in elevation. Blooms February–June.	May occur. The housing sites may contain aquatic habitat (e.g., vernal pools, wetlands) suitable for this species.
Delta tule pea <i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	–	–	1B.2	Freshwater and brackish marshes. Usually on marsh and slough edges. 0–16 feet in elevation. Blooms May–July.	Not expected to occur. The housing sites do not contain marsh habitat.

Species	Listing Status ¹ Federal	Listing Status ¹ State	CRPR	Habitat	Potential for Occurrence ²
Legenere <i>Legenere limosa</i>	–	–	1B.1	In beds of relatively deep and wet vernal pools. 3–2,887 feet in elevation. Blooms April–June.	Not expected to occur. The housing sites do not contain large, deep vernal pools suitable for this species.
Heckard's pepper-grass <i>Lepidium latipes</i> var. <i>heckardii</i>	–	–	1B.2	Moist, alkaline soils in grasslands and sometimes vernal pool edges. 3–98 feet in elevation. Blooms March–May.	May occur. The housing sites may contain annual grassland habitat and may contain alkaline habitat suitable for this species.
Mason's lilaepsis <i>Lilaeopsis masonii</i>	–	SR	1B.1	Freshwater and brackish marshes, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or riverbank erosion. 0–33 feet in elevation. Blooms April–November.	Not expected to occur. The housing sites do not contain marsh habitat.
Delta mudwort <i>Limosella australis</i>	–	–	2B.1	Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with <i>Lilaeopsis masonii</i> . 0–16 feet in elevation. Blooms May–August.	Not expected to occur. The housing sites are not located in the Delta and do not contain marsh habitat.
Slender Orcutt grass <i>Orcuttia tenuis</i>	FT	SE	1B.1	Vernal pools, wetland. Often in gravelly substrate. 82–5,758 feet in elevation. Blooms May–September.	May occur. The housing sites may contain vernal pools suitable for this species.
Sacramento Orcutt grass <i>Orcuttia viscida</i>	FE	SE	1B.1	Vernal pools, wetland. 49–279 feet in elevation. Blooms April–July.	May occur. The housing sites may contain vernal pools suitable for this species.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	–	–	1B.2	In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,133 feet in elevation. Blooms May–October.	May occur. The housing sites may contain aquatic habitat (e.g., irrigation ditches) suitable for this species.
Marsh skullcap <i>Scutellaria galericulata</i>	–	–	2B.2	Freshwater marshes and swamps, meadows, and seeps. 0–6,398 feet in elevation. Blooms June–September.	Not expected to occur. The housing sites do not contain wetland habitat suitable for this species.
Side-flowering skullcap <i>Scutellaria lateriflora</i>	–	–	2B.2	Wet meadows and marshes. In the Delta, often found on logs. 0–1,640 feet in elevation. Blooms July–September.	Not expected to occur. The housing sites are not located in the Delta and do not contain marsh habitat.
Saline clover <i>Trifolium hydrophilum</i>	–	–	1B.2	Salt marshes and in alkaline soils in moist valley and foothill grasslands and vernal pools. 0–984 feet in elevation. Blooms April–June.	May occur. The housing sites may contain alkaline wetland habitat (e.g., wetlands) suitable for this species.

Notes: CRPR = California Rare Plant Rank; CESA = California Endangered Species Act; CEQA = California Environmental Quality Act; ESA = Endangered Species Act; NPPA = Native Plant Protection Act

1 Legal Status Definitions

Federal:

FE Federally Listed as Endangered (legally protected by ESA)

FT Federally Listed as Threatened (legally protected by ESA)

State:

SE State Listed as Endangered (legally protected by CESA)

SR State Listed as Rare (legally protected by NPPA)

California Rare Plant Ranks:

1A Plant species that are presumed extirpated or extinct because they have not been seen or collected in the wild in California for many years. A plant is extinct if it no longer occurs anywhere. A plant that is extirpated from California has been eliminated from California but may still occur elsewhere in its range.

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

3 Plant species for which there is not enough information to assign the species to one of the other ranks or reject them.

Threat Ranks:

- 0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
- 0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
- 0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

2 Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available and there have been nearby recorded occurrences of the species.

Sources: CNDDDB 2020; CNPS 2020

Table 3.4-2 Special-Status Wildlife Species Known to Occur in the Vicinity of the Planning Area and Their Potential for Occurrence in the Housing Sites

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
Amphibians and Reptiles				
California tiger salamander <i>Ambystoma californiense</i>	FT	ST	Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not expected to occur. California tiger salamander has not been recorded within the Sacramento County Urban Services Boundary or north of the Cosumnes River despite extensive surveys (County of Sacramento et al. 2018).
Giant gartersnake <i>Thamnophis gigas</i>	FT	ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the gartersnakes in California.	May occur. The housing sites may contain aquatic habitat potentially suitable for this species, including irrigation ditches.
Western pond turtle <i>Actinemys marmorata</i>	-	SSC	Ponds, marshes, rivers, streams, and irrigation ditches; usually with aquatic vegetation, below 6,000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	May occur. The housing sites may contain aquatic habitat potentially suitable for this species, including irrigation ditches.
Western spadefoot <i>Spea hammondi</i>	-	SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	May occur. The housing sites may contain habitat potentially suitable for this species within annual grasslands that may contain vernal pool habitat.
Birds				
Bald eagle <i>Haliaeetus leucocephalus</i>	FD	SE FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not expected to occur. The housing sites do not contain nesting habitat suitable for this species.
Bank swallow <i>Riparia</i>	-	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur. The housing sites do not contain nesting habitat suitable for this species.
Burrowing owl <i>Athene cunicularia</i>	-	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	May occur. The housing sites contain habitat potentially suitable for this species within annual grassland, croplands, and ruderal grasslands in developed areas.
California black rail	-	ST FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering	Not expected to occur. The housing sites do not contain marsh habitat.

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
<i>Laterallus jamaicensis coturniculus</i>			larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	
California least tern <i>Sternula antillarum browni</i>	FE	SE FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	Not expected to occur. The housing sites do not contain nesting habitat suitable for this species.
Golden eagle <i>Aquila chrysaetos</i>	–	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not expected to occur. The housing sites do not contain nesting habitat suitable for this species.
Grasshopper sparrow <i>Ammodramus savannarum</i>	–	SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting.	Not expected to occur. The annual grassland habitat within the housing sites does not provide habitat suitable for this species, as these areas are small and disturbed.
Greater sandhill crane <i>Antigone canadensis tabida</i>	–	ST FP	Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	May occur. The housing sites contain foraging or loafing habitat potentially suitable for this species within annual grasslands and irrigated pastures.
Lesser sandhill crane <i>Antigone canadensis</i>	–	SSC	Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	May occur. The housing sites contain foraging or loafing habitat potentially suitable for this species within annual grasslands and irrigated pastures.
Loggerhead shrike <i>Lanius ludovicianus</i>	–	SSC	Broadleaved upland forest, desert wash, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodlands, riparian woodland, Sonoran desert scrub. Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	May occur. The housing sites contain limited trees and shrubs in grassland habitat suitable for this species.
Northern harrier <i>Circus cyaneus</i>	–	SSC	Coastal scrub, Great Basin grassland, marsh and swamp, riparian scrub, valley and foothill grassland, and wetlands. Coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	May occur. The annual grassland habitat within the housing sites may provide habitat suitable for this species.
Purple martin <i>Progne subis</i>	–	SSC	Broadleaved upland forest, lower montane coniferous forest. Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made	Not expected to occur. The housing sites do not contain nesting habitat suitable for this species.

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
			structures. Nest often located in tall, isolated tree/snag.	
Song sparrow ("Modesto" population) <i>Melospiza melodia</i>	–	SSC	Marsh and swamp, wetlands. Emergent freshwater marshes, riparian willow thickets, riparian forests of valley oak (<i>Quercus lobata</i>), and vegetated irrigation canals and levees.	Not expected to occur. The housing sites do not contain marsh or riparian forest habitat suitable for this species.
Swainson's hawk <i>Buteo swainsoni</i>	–	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	May occur. The housing sites contain nesting habitat potentially suitable for Swainson's hawk in trees adjacent to annual grassland or agricultural areas. Additionally, grassland and agricultural areas in the housing sites may provide foraging habitat suitable for Swainson's hawks.
Tricolored blackbird <i>Agelaius tricolor</i>	–	ST SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few miles of the colony.	May occur. The housing sites contain nesting habitat potentially suitable for tricolored blackbird within agricultural areas and in vegetated areas (e.g., Himalayan blackberry [<i>Rubus armeniacus</i>]) near aquatic habitat (e.g., irrigation ditches).
Vaux's swift <i>Chaetura vauxi</i>	–	SSC	Lower montane coniferous forest, north coast coniferous forest, old growth, redwood. Redwood, Douglas-fir, and other coniferous forests. Nests in large hollow trees and snags. Often nests in flocks. Forages over most terrains and habitats but shows a preference for foraging over rivers and lakes.	Not expected to occur. The housing sites do not contain nesting habitat suitable for this species.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT	SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not expected to occur. The housing sites do not contain riparian forest habitat suitable for this species.
White-tailed kite <i>Elanus leucurus</i>	–	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	May occur. The housing sites contain nesting habitat potentially suitable for white-tailed kite in trees adjacent to annual grassland or agricultural areas.
Yellow warbler <i>Setophaga petechia</i>	–	SSC	Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Not expected to occur. The housing sites do not contain riparian forest habitat suitable for this species.
Yellow-breasted chat <i>Icteria virens</i>	–	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	Not expected to occur. The housing sites do not contain riparian forest habitat suitable for this species.
Yellow-headed blackbird <i>Xanthocephalus</i>	–	SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant,	Not expected to occur. The housing sites do not contain deep freshwater emergent wetlands, lakes, or ponds.

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
			nesting timed with maximum emergence of aquatic insects.	
Fish				
Chinook salmon - Central Valley fall / late fall-run ESU <i>Oncorhynchus tshawytscha</i> pop. 13	-	SSC	Populations spawning in the Sacramento and San Joaquin rivers and their tributaries.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Chinook salmon - Central Valley spring-run ESU <i>Oncorhynchus tshawytscha</i> pop. 6	FT	ST	Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps >27 C are lethal to adults. Federal listing refers to populations spawning in Sacramento River and tributaries.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Chinook salmon - Sacramento River winter-run ESU <i>Oncorhynchus tshawytscha</i> pop. 7	FE	SE	Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6 and 14 C for spawning.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Delta smelt <i>Hypomesus transpacificus</i>	FT	SE	Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities less than 2 ppt.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Hardhead <i>Mylopharodon conocephalus</i>	-	SSC	Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Longfin smelt <i>Spirinchus thaleichthys</i>	FC	SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Can be found in completely freshwater to almost pure seawater.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Pacific lamprey <i>Entosphenus tridentatus</i>	-	SSC	Found in Pacific Coast streams north of San Luis Obispo County, however regular runs in Santa Clara River. Size of runs is declining. Swift-current gravel-bottomed areas for spawning with water temperatures between 12-18 degrees C. Ammocoetes need soft sand or mud.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Sacramento hitch <i>Lavinia exilicauda</i>	-	SSC	Inhabits warm, lowland, waters including clear streams, turbid sloughs, lakes, and reservoirs.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	-	SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay, and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Steelhead - central California coast DPS <i>Oncorhynchus mykiss irideus</i> pop. 8	FT	-	From Russian River, south to Soquel Creek and to, but not including Pajaro River. Also San Francisco and San Pablo Bay basins.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
Steelhead - Central Valley DPS <i>Oncorhynchus mykiss irideus</i> pop. 11	FT	–	Populations in the Sacramento and San Joaquin rivers and their tributaries.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Western river lamprey <i>Lampetra ayresii</i>	–	SSC	May occur in coastal streams north of San Francisco Bay. Require clean, gravelly riffles; sandy backwaters or stream edges; good water quality; and temperatures less than 25 C.	Not expected to occur. The housing sites do not contain aquatic habitat suitable for this species.
Invertebrates				
Crotch bumble bee <i>Bombus crotchii</i>	–	SC	Coastal California east to the Sierra-Cascade crest and south into Mexico. Bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Not expected to occur. There is one known occurrence of crotch bumble bee approximately 5 miles south of the housing sites within Cosumnes River Preserve (CNDDDB 2020). While the housing sites contain some small areas (i.e., less than 10 acres) of annual grassland habitat, this habitat is routinely mowed or disked, is distributed in a patchy manner, and is surrounded by urban development. Although bumble bees can forage and disperse over long distances, isolated patches of habitat do not provide high quality habitat for this species (Xerces Society 2018). While the grassland habitat within the housing sites may contain flora that could be utilized by bumble bees, it is completely surrounded by urban development, and does not have connectivity with other natural grassland habitat in the region. Viable bumble bee populations typically require approximately 750-2,500 acres of suitable habitat, which is much larger than the available habitat in the housing sites (Xerces Society 2018).
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	–	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	May occur. The housing sites are within the range of this species and may contain blue elderberry shrubs.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	–	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	May occur. Annual grassland habitat is present within the housing sites which may contain vernal pool habitat suitable for this species.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE	–	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	May occur. Annual grassland habitat is present within the housing sites which may contain vernal pool habitat suitable for this species.

Species	Listing Status ¹		Habitat	Potential for Occurrence ²
	Federal	State		
Mammals				
American badger <i>Taxidea taxus</i>	–	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected to occur. While the housing sites contain annual grasslands and agricultural habitats which may be suitable for American badger, these areas are small, disturbed, and fragmented from other grassland habitat in surrounding areas.
Western red bat <i>Lasiurus blossevillii</i>	–	SSC	Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Not expected to occur. The housing sites do not contain tree roost habitat potentially suitable for western red bat.

¹ Legal Status Definitions

Federal:

- FE federally listed as endangered (legally protected)
- FT federally listed as threatened (legally protected)
- FC federal candidate species
- FD federally delisted

State:

- FP fully protected (legally protected)
- SSC species of special concern (no formal protection other than CEQA consideration)
- SE State listed as endangered (legally protected)
- ST State listed as threatened (legally protected)
- SC State candidate for listing (legally protected)

² Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.

Notes: DPS = distinct population segment; ESU = evolutionarily significant unit.

Sources: CNDDDB 2020; USFWS 2020

Sensitive Natural Communities

Sensitive natural communities are those native plant communities defined by CDFW as having limited distribution statewide or within a county or region and that are often vulnerable to environmental effects of projects (CDFW 2018). These communities may or may not contain special-status plants or their habitat (CDFW 2018). CDFW designates sensitive natural communities based on their State rarity and threat ranking using NatureServe's Heritage Methodology. Natural communities with rarity ranks of S1 to S3, where S1 is critically imperiled, S2 is imperiled, and S3 is vulnerable, are considered sensitive natural communities to be addressed in the environmental review processes of CEQA and its equivalents (CDFW 2018).

Sensitive natural communities are generally identified at the alliance level of vegetation classification hierarchy using the Manual of California Vegetation (Sawyer et al. 2009). Known occurrences of sensitive natural communities are included in the CNDDDB; however, no new occurrences have been added to the CNDDDB since the mid-1990s when funding was cut for this portion of the CNDDDB program. Six sensitive natural communities were identified within the nine USGS quadrangles surrounding the plan area through a query of the CNDDDB: coastal and valley freshwater marsh, elderberry savanna, great valley mixed riparian forest, great valley oak riparian forest, northern hardpan vernal pool, and valley oak woodland (CNDDDB 2020). These communities were mapped and classified in the CNDDDB prior to publication of the Manual of California Vegetation and are classified according to Holland (1986).

Coastal and Valley Freshwater Marsh

Coastal and valley freshwater marsh is characterized by seasonally or permanently flooded areas along streams, lakes, ponds, and springs. These areas provide habitat for the freshwater marsh species which include bulrushes (*Schoenoplectus* spp.), sedges *Carex* spp.), cattails (*Typha* spp.), and rushes (*Juncus* spp.). Coastal and valley freshwater marsh habitat is present in Stone Lakes National Wildlife Refuge south of the housing sites (CNDDDB 2020). This sensitive natural community does not occur within the housing sites.

Elderberry Savanna

Elderberry savanna is dominated by blue elderberry (*Sambucus nigra* ssp. *caerulea*) and typically has an understory of various grasses and forbs. This habitat has a patchy distribution throughout the Sacramento valley and is associated with surviving stands of riparian vegetation. Elderberry savanna habitat is present north of the housing sites in the city of Sacramento adjacent to the American River (CNDDDB 2020). Blue elderberry shrubs provide habitat for valley elderberry longhorn beetle, which is listed as threatened under the ESA. This sensitive natural community does not occur within the housing sites; however, individual, or small groups of elderberry shrubs may occur.

Great Valley Mixed Riparian Forest

Great valley mixed riparian forest contains several tree species, including Fremont cottonwood, box elder, Oregon ash, willow, California sycamore, and California walnut. This habitat is associated with streams and rivers and is limited to isolated remnants in the Sacramento Valley. Great valley mixed riparian forest habitat is present in the Cosumnes River Preserve south of the housing sites (CNDDDB 2020). This sensitive natural community does not occur within the housing sites.

Great Valley Valley Oak Riparian Forest

Great Valley valley oak riparian forest is a medium to tall broadleaved, winter deciduous, closed-canopy riparian forest dominated by valley oak (*Quercus lobata*). Understory species include northern California black walnut (*Juglans hindsii*), California sycamore (*Platanus racemosa*), and young valley oaks. Great Valley valley oak riparian forest is present south of the housing sites near the Cosumnes River and its tributaries. This sensitive natural community does not occur within the housing sites.

Northern Hardpan Vernal Pool

Northern hardpan vernal pools are shallow, ephemeral waterbodies found in depressions among grasslands and open woodlands in the northern Central Valley of California. These vernal pools are formed on alluvial terraces with silicate-cement soil layers. These pool types are on acidic soils and exhibit well-developed mima mound topography found on the eastern margins of the California Central Valley. There are several known occurrences of northern hardpan vernal pool within the planning area, some of which may be present within the housing sites (CNDDDB 2020). There may be additional vernal pool habitat that has not been previously identified within annual grassland habitat in the housing sites.

Valley Oak Woodland

Valley oak woodland is typically dominated by valley oak, which is often the only tree species present in the habitat. Valley oak woodland habitat is present in the Cosumnes River Preserve south of the housing sites (CNDDDB 2020). This sensitive natural community does not occur within the housing sites.

Wildlife Movement Corridors and Wildlife Nursery Sites

Some of the important areas for habitat connectivity in California were mapped as Essential Connectivity Areas (ECA) for the California Essential Habitat Connectivity Project, which was commissioned by the California Department of Transportation and CDFW with the purpose of making transportation and land-use planning more efficient and less costly, while helping reduce dangerous wildlife-vehicle collisions (Spencer et al. 2010). The ECAs were not developed for the purposes of defining areas subject to specific regulations by CDFW or other agencies.

The majority of the housing sites either contain urban or rural development or are surrounded by development. The housing sites do not contain any portion of an identified ECA or Natural Landscape Block. ECAs and Natural Landscape Blocks have been identified within Stone Lakes National Wildlife Refuge west of the housing sites, and

along the Cosumnes River and the Cosumnes River Preserve south of the housing sites. There are significant existing barriers to terrestrial movement between the housing sites and the core of the ECAs in Stone Lakes National Wildlife Refuge and the Cosumnes River, including I-5, other roads, urban development, and residential development. The housing sites contain only small areas of annual grassland habitat, which do not provide habitat connectivity to the surrounding area. Additionally, the housing sites do not contain wildlife nursery sites (e.g., heron rookery, significant bat roosts, deer fawning sites).

3.4.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following impact evaluation is based primarily on review of the information and analysis presented in the General Plan EIR, Specific Plan EIRs in the City of Elk Grove, as well as databases that address biological resources in the Project vicinity, and review of aerial imagery of the housing sites.

THRESHOLDS OF SIGNIFICANCE

An impact on biological resources would be significant if implementation of the Project would:

- ▶ have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS;
- ▶ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- ▶ have a substantial adverse effect on State-protected or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, or similar.) through direct removal, filling, hydrological interruption, or other means;
- ▶ interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- ▶ conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- ▶ conflict with the provisions of an adopted habitat conservation plan (HCP); natural community conservation plan; or other approved local, regional, or State HCP.

ISSUES NOT DISCUSSED FURTHER

Riparian Habitat

The housing sites do not contain mixed riparian woodland or valley oak riparian habitats as mapped in the City of Elk Grove General Plan (City of Elk Grove 2019). This issue is not discussed further.

Wildlife Movement Corridors and Wildlife Nursery Sites

The housing sites do not contain any portion of an identified ECA or Natural Landscape Block and does not contain natural habitat except for small areas of annual grassland which do not provide connectivity to surrounding natural habitat areas. Additionally, the housing sites, which are largely developed or surrounded by development, do not contain wildlife nursery sites. Infill development under the Project is not expected to disrupt wildlife movement. This issue is not discussed further.

Consistency with Habitat Conservation Plans

The housing sites are not within the plan area of any adopted HCP or natural community conservation plan. The South Sacramento HCP plan area is located nearby; however, the City is not currently a participant in this plan and infill development under the Project would not interfere with implementation of the HCP. The City is considering becoming a special entity under the HCP for specific projects that involve annexation into the City, None of the housing sites are within an annexation area. Therefore, this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.4-1: Result in Disturbance or Loss of Special-Status Plant Species or Habitat

General Plan EIR Impact 5.4.1 identified significant and unavoidable impacts to special status plant species and habitat. Potential land use conversion and development as part of implementation of the Housing Element and Safety Element Update could result in disturbance to or loss of several special-status plant species if they are present. The loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species. Implementation of General Plan standards and policies would address impacts on special-status plants as a result of land conversion, ground disturbance, and construction because they would require a biological resources evaluation to identify special-status plants, avoidance of sensitive habitats where special-status plants are known or may occur, and implementation of appropriate mitigation to preserve and enhance habitat that supports special-status plants, or compensate for loss of occupied habitat if preservation is not possible as required by local, state, and federal law. The Housing Element and Safety Element Update would not result in a new or substantially more severe impact to special-status plant species that was addressed in the General Plan EIR because it would not substantially expand the overall planned development footprint of the City and would be subject to City policy provisions. Project impacts would be **less than significant**.

Table 3.4-1 provides a list of the special-status plant species; including scientific names, listing status, and habitat associations; that may occur within the housing sites. Nine special-status plant species were determined to have potential to occur within the housing sites: dwarf downingia, Boggs Lake hedge-hyssop, Ahart's dwarf rush, alkali-sink goldfields, Heckard's pepper-grass, slender Orcutt grass, Sacramento Orcutt grass, Sanford's arrowhead, and saline clover. All of these species are associated with aquatic habitat, including vernal pools, seasonal wetlands, and irrigation ditches. This habitat may be present within the housing sites in areas mapped as annual grassland, rural development, or agricultural land cover types. Special-status plants are not expected to occur within areas mapped as urban development.

Housing and potential emergency access improvement construction activities associated with the implementation of the Housing Element and Safety Element Update could include ground disturbance, vegetation removal, and conversion of habitat, including annual grassland, rural development, and agricultural land cover types. These activities could result in damage (e.g., trampling, alteration of root structure) or direct loss of special-status plants or their habitat if they are present. The loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species. These impacts were identified in Impact 5.4.1 of the General Plan EIR. Subsequent activities under the Housing Element and Safety Element Update would be subject to General Plan Policy NR-1-2 and General Plan Standard NR-1.2a, which would require a biological resources evaluation for development projects that may contain special-status plants and implementation of appropriate mitigation to preserve and enhance habitat that supports special-status plants, or to compensate for loss of special-status plants if preservation is not possible, as required by various local, state, and federal regulations. Additionally, General Plan Standard NR-1.2c and General Plan Policy NR-1-4 would require stream setbacks and avoidance of sensitive habitats that may support special-status plants (e.g., wetlands, vernal pools, marshland, riparian areas). These policies and standards would reduce or avoid potential impacts on special-status plants. Development in community and specific plan areas (e.g., Laguna Ridge Specific Plan and Southeast Area Strategic Plan) would continue to be subject to mitigation measures identified in those documents to reduce impacts to habitat for special-status plants. Implementation of the Project would occur in areas planned for urban development assumed under the General Plan EIR.

Compliance with the City General Plan policies and adopted mitigation measures would require subsequent projects to submit biological resource technical reports as part of housing site applications or public initiated emergency access improvements that determine whether special-status plant species occur using survey methods from the CDFW Protocols for Surveying and Evaluating Impacts of Special Status Native Plant Populations and Natural Communities (CDFW 2018). Mitigation for identified special-status plant species would be incorporated into the subsequent project design and could consist of avoidance and protection of the onsite or compensation of the plant species that achieves a no net loss in consultation with CDFW and USFWS (e.g., transplantation of plant or creation of offsite plant populations through seed collection). In addition, CDFW would impose mitigation for identified special-status plant species as part of its authority in issuing Streambed Alteration Agreements under Section 1600 of the California Fish and Game Code while USFWS would impose mitigation for projects requesting permits to fill federally regulated wetlands under Section 404 of the CWA.

There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Thus, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with City General Plan policies NR-1-2, NR-1-4, and standards NR-1.2a and NR-1.2c as well as through permitting by CDFW and USFWS.

Impact 3.4-2: Result in Disturbance or Loss of Special-Status Wildlife Species or Habitat

General Plan EIR Impacts 5.4.1 and 5.4.2 identified significant and unavoidable impacts to special status wildlife species and habitat. Potential land use conversion and development as part of the Housing Element and Safety Element Update implementation may include ground disturbance, tree removal, and construction of new buildings and infrastructure, which may result in disturbance to or of loss of special-status wildlife species and reduced breeding productivity of these species. Implementation of General Plan standards and policies would reduce significant impacts on special-status wildlife as a result of land conversion, ground disturbance, and construction because they would require a biological resources evaluation to identify special-status wildlife, avoidance of sensitive habitats where special-status wildlife may occur, and implementation of appropriate mitigation to preserve and enhance habitat that supports special-status wildlife, or compensate for loss of habitat, as required by local, state, and federal law. The Housing Element and Safety Element Update would not result in a new or substantially more severe impact to special-status wildlife species that than was addressed in the General Plan EIR because it would not substantially expand the overall planned development footprint of the City and would be subject to City policy provisions. Project impacts would be **less than significant**.

Table 3.4-2 provides a list of the special-status wildlife species; including scientific names, listing status, and habitat associations; that may occur within the housing sites and potential emergency access improvements under the Housing Element and Safety Element Update. Fourteen special-status wildlife species were determined to have potential to occur within the housing sites: giant garter snake, western pond turtle, western spadefoot, burrowing owl, greater sandhill crane, lesser sandhill crane, loggerhead shrike, northern harrier, Swainson's hawk, tricolored blackbird, white-tailed kite, valley elderberry longhorn beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp.

Greater sandhill crane and lesser sandhill crane may occasionally use the irrigated pasture habitat for foraging or loafing. However, due to its patchy nature and relatively high level of disturbance from surrounding urban and rural development, this habitat is considered marginal and likely does not provide high quality or large enough areas of habitat suitable for the species. These species are known to occur in large numbers within Stone Lakes National Wildlife Refuge west of the housing sites and Cosumnes River Preserve south of the housing sites, where large areas of suitable habitat for the species (e.g., marsh, grassland) are present. Construction activities and land conversion within the irrigated pasture within the housing sites are not expected to result in a substantial reduction in high quality suitable habitat for sandhill cranes in the region, thus further mitigation for these species is not required.

Habitat potentially suitable for giant gartersnake and western pond turtle is present within irrigation ditches in the City. The subsequent project sites may contain irrigation ditches or annual grassland habitat adjacent to irrigation ditches, which may provide upland habitat suitable for these species. Previously unidentified vernal pools or seasonal wetlands may be present within annual grasslands, rural development, or agricultural land uses. These aquatic features may provide habitat suitable for special-status vernal pool species: western spadefoot, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Annual grassland habitat, as well as earthen edges of cropland areas, may provide habitat suitable for burrowing owl, which is known to occur in the City. Large trees, including trees within existing urban areas, may provide habitat suitable for nesting Swainson's hawk, white-tailed kite, and other raptor species (e.g., red-tailed hawk [*Buteo jamaicensis*], red-shouldered hawk [*Buteo lineatus*], Cooper's hawk [*Accipiter cooperi*]), and trees and shrubs of any size may provide nesting habitat suitable for common, native birds protected under California Fish and Game Code and the federal MBTA. Habitat potentially suitable for tricolored blackbird may be present within annual grasslands, rural development, and agricultural land covers if these areas contain aquatic habitat (e.g., irrigation ditches), thickets of Himalayan blackberry (*Rubus armeniacus*) or similar vegetation, or active grain fields. Annual grassland and some agricultural habitats (e.g., grain fields) in the City may also provide foraging habitat suitable for Swainson's hawk. Finally, the housing sites may contain blue elderberry shrubs that may provide habitat suitable for valley elderberry longhorn beetle.

Implementation of the Housing Element and Safety Element Update may include ground disturbance, vegetation removal, and conversion of habitat, (i.e., annual grasslands, rural development, agricultural land cover types). These activities could result in injury or mortality of special-status wildlife or adverse effects or loss of occupied habitat if present within the housing sites that could generate larger development footprints than current General Plan land use designations and zoning. Additionally, construction activities (e.g., grading, use of heavy equipment, use of vehicles, presence of construction personnel) could result in disturbance to birds nesting within or adjacent to the housing sites and potential emergency access improvements, potentially result in nest abandonment and loss of eggs or chicks. These impacts were identified in Impact 5.4.1 and 5.4.2 of the General Plan EIR. Subsequent activities under the Housing Element and Safety Element Update would be subject to General Plan Policy NR-1-2 and General Plan standard NR-1.2a, which would require a biological resources evaluation for development projects that may contain special-status wildlife species and implementation of appropriate mitigation to preserve and enhance habitat that supports special-status wildlife, or compensate for loss of habitat, as required by various local, state, and federal regulations. Additionally, General Plan standards NR-1.2b and NR-1.2c and General Plan Policy NR-1-4 would require stream setbacks and avoidance of sensitive habitats that may support special-status wildlife (e.g., wetlands, vernal pools, marshland, riparian areas). Subsequent projects may also be required to comply with Municipal Code Chapter 16.130 that requires mitigation for the loss of Swainson's hawk habitat at a 1:1 ratio. These policies and standards would reduce or avoid potential impacts on special-status wildlife. Development in community and specific plan areas (e.g., Laguna Ridge Specific Plan and Southeast Area Strategic Plan) would continue to be subject to mitigation measures identified in those documents to reduce impacts to habitat. Implementation of the Project would occur in areas planned for urban development assumed under the General Plan EIR.

Compliance with the City General Plan policies and adopted mitigation measures would require subsequent projects to submit biological resource technical reports as part of housing site applications or public initiated emergency access improvements that determine whether special-status wildlife species potentially occur. Mitigation for identified special-status wildlife species would be incorporated into the subsequent project design and could consist of avoidance and protection of species in consultation with CDFW and USFWS. Subsequent projects may also be required to comply with Municipal Code Chapter 16.130 that requires mitigation for the loss of Swainson's hawk habitat (preservation of habitat or payment of fees). In addition, CDFW would impose mitigation for identified special-status wildlife species as part of its authority in issuing Streambed Alteration Agreements under Section 1600 of the California Fish and Game Code while USFWS would impose mitigation for projects requesting permits to fill federally regulated wetlands under Section 404 of the CWA.

There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Thus, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with City General Plan policies NR-1-2, NR-1-4, and standards NR-1.2b and NR-1.2c, City Municipal Code Chapter 16.130, and through permitting by CDFW and USFWS.

Impact 3.4-3: Result in Degradation or Loss of State or Federally Protected Wetlands, Including Vernal Pools

General Plan EIR Impact 5.4.3 identified less than significant impacts to wetlands through compliance with existing federal, state, and local regulations and General Plan policy provisions. Implementation of the Housing Element and Safety Element Update may include ground disturbance, vegetation removal, and habitat conversion, which may result in degradation (e.g., inadvertent fill) or loss of State or federally protected wetlands, including vernal pools. Implementation of existing federal, state, and local regulations and General Plan policy provisions would reduce significant impacts on state and federally protected wetlands as a result of land conversion, ground disturbance, and construction because they would require a biological resources evaluation to identify sensitive habitats, avoidance of wetlands, vernal pools, marshland, and riparian areas, and implementation of appropriate mitigation to preserve and enhance these habitats as required by local, state, and federal law. The Housing Element and Safety Element Update would not result in a new or substantially more severe impact to wetland resources than was addressed in the General Plan EIR because it would not substantially expand the overall planned development footprint of the City and would be subject to City policy provisions. Project impacts would be **less than significant**.

While the housing sites contains primarily developed land cover (e.g., urban, rural), agricultural land cover, and annual grasslands, aquatic habitat including irrigation ditches, seasonal wetlands, swales, and vernal pools may be present within some areas of the housing sites. Some aquatic habitats within the housing sites have been mapped; however, seasonal wetlands and vernal pools in the Sacramento Valley are frequently unmapped, and can occur within annual grasslands, ruderal grasslands in urban development areas, rural development areas, and agricultural land covers. Some of these aquatic features, if present, may be regulated by the USACE under the federal Clean Water Act. Additionally, these features and associated habitat would also likely qualify as waters of the State and/or under the regulatory authority of CDFW pursuant to California Fish and Game Code 1600 et seq. Wetlands and swales would likely be considered State-protected wetland habitat. Vernal pools are also considered sensitive natural communities, which often provide habitat for special-status plant and wildlife species.

Potential emergency access improvement construction activities associated with the implementation of the Housing Element and Safety Element Update may include ground disturbance, vegetation removal, and conversion of habitat, (i.e., annual grasslands, rural development, agricultural land cover types). These activities could result in degradation (e.g., inadvertent fill) or loss of State or federally protected wetlands, including vernal pools. These impacts were identified in Impact 5.4.3 of the General Plan EIR. Subsequent activities under the Housing Element and Safety Element Update would be subject to General Plan policy NR-1-2 and General Plan standard NR-1.2a, which would require a biological resources evaluation for development projects that may contain sensitive habitats and implementation of appropriate mitigation and permitting to preserve and enhance these habitats as required by various local, state, and federal regulations. Additionally, General Plan standards NR-1.2b and NR-1.2c and General Plan Policy NR-1.4 would require stream setbacks and avoidance of sensitive habitats including wetlands, vernal pools, marshland, riparian areas. Where preservation or avoidance of these habitats is not possible, Policy NR 1-4 requires mitigation to ensure that no net loss of wetland or riparian areas occurs, which may be accomplished by avoidance, revegetation, restoration on-site or through creation of riparian habitat corridors, or purchase of credits from a qualified mitigation bank. These policies and standards would reduce or avoid potential impacts on state or federally protected wetlands. Development in community and specific plan areas (e.g., Laguna Ridge Specific Plan and Southeast Area Strategic Plan would continue to be subject to mitigation measures identified in those documents to reduce impacts to habitat. Implementation of the Project would occur in areas planned for urban development assumed under the General Plan EIR.

Compliance with the City General Plan policies and adopted mitigation measures would require subsequent projects to submit biological resource technical reports as part of housing site applications or public initiated emergency access route improvements that would identify habitat conditions. Mitigation for habitat would be incorporated into the subsequent project design and could consist of avoidance or compensation for habitat loss. In addition, CDFW

would impose mitigation for habitat impacts as part of its authority in issuing Streambed Alteration Agreements under Section 1600 of the Fish and Game Code while USFWS would impose mitigation for projects requesting permits to fill federally regulated wetlands under Section 404 of the CWA.

There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Thus, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with City General Plan policies NR-1-2, NR-1-4, and standards NR-1.2b and NR-1.2c and through permitting by CDFW and USFWS.

Impact 3.4-4: Conflict with Local Policies and Ordinances

Implementation of the Housing Element and Safety Element Update would be required comply with City of Elk Grove Municipal Code Chapter 19.12 Tree Preservation and Protection, which would require preparation of an arborist report if subsequent projects contain trees that would be removed, as well as identification and protection measures for trees of local importance. The Housing Element and Safety Element Update would not result in a new or substantially more severe impacts that was addressed in the General Plan EIR because it would not expand the overall planned development footprint of the City. Project impacts would be **less than significant**.

Implementation of the Housing Element and Safety Element Update would result in subsequent housing projects and emergency access improvements that may require tree removal or pruning. The City has adopted regulations in Chapter 19.12 of the City of Elk Grove Municipal Code (Tree Preservation and Protection) that provide mitigation for potential impacts on trees, including those identified as trees of local importance, which are defined as coast live oak (*Quercus agrifolia*), valley oak, blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizeni*), oracle oak (*Quercus x morehus*), California sycamore, and California black walnut with a single trunk 6 inches diameter at breast height (DSH) or greater or multiple trunks with a combined DSH of 6 inches or greater.

Project implementation could result in removal of trees, including trees identified as trees of local importance. Loss or damage to trees of local importance would conflict with tree protection requirements in Chapter 19.12 of the City of Elk Grove Municipal Code (Tree Preservation and Protection). Compliance with City of Elk Grove Municipal Code Chapter 19.12 would require preparation of an arborist report if subsequent projects contain trees that will be removed, as well as identification and protection measures for trees of local importance. Compliance with City of Elk Grove Municipal Code Chapter 19.12 would reduce or avoid potential impacts on trees of local importance and would avoid conflicts with local policies and ordinances. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Thus, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation beyond compliance with the General Plan and the City Municipal Code Chapter 19.13.

3.5 ENERGY

This section evaluates whether implementing the Project would result in an environmental impact related to the inefficient, wasteful, or unnecessary consumption of energy and evaluates the Project's consistency with applicable plans related to energy conservation or renewable energy. The capacity of existing and proposed infrastructure to serve the Project is evaluated in Section 3.14, "Utilities and Service Systems." The primary source of information used for this analysis is Section 5.7, "Greenhouse Gas Emissions and Energy," from the *City of Elk Grove General Plan Update Draft Environmental Impact Report* (General Plan EIR) (City of Elk Grove 2018).

The Sacramento Municipal Utility District (SMUD) submitted a comment letter regarding energy in response to the notice of preparation (NOP). The letter noted that SMUD is the primary energy provider in the Project area and requests that the project descriptions for the individual development projects undertaken as part of the Project will acknowledge any impacts related to utility easements, utility line routing, electrical load requirements, energy efficiency, climate change, and relocation of SMUD infrastructure. As discussed in Chapter 1, "Introduction," of this Draft SEIR, future development under the Project would be reviewed to determine if additional environmental review is needed, based on subsequent project details.

3.5.1 Regulatory Setting

Energy conservation is embodied in many federal, State, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the U.S. Environmental Protection Agency's [EPA's] EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the State level, Title 24 of the California Code of Regulations (CCR) sets forth energy standards for buildings. Further, the state provides rebates and tax credits for installing renewable energy systems, and its Flex Your Power program promotes conservation in multiple areas. At the local level, individual cities and counties establish policies in their general plans and climate action plans related to the energy efficiency of new development and land use planning and related to the use of renewable energy sources.

FEDERAL

Energy Policy and Conservation Act and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this act, the National Highway Traffic and Safety Administration, part of the U.S. Department of Transportation (DOT), is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

The corporate average fuel economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with the CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the U.S. EPA calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. The CAFE values are a weighted harmonic average of the EPA city and highway fuel economy test results. Based on information generated under the CAFE program, DOT is authorized to assess penalties for noncompliance. Under the Energy Independence and Security Act of 2007 (described below), the CAFE standards were revised for the first time in 30 years.

On August 2, 2018, the National Highway Traffic Safety Administration and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule) (49 Code of Federal Regulations [CFR] 523, 531, 533, 536, 537 and 40 CFR 85 and 86). The final SAFE Rule was signed on March 30, 2020.

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. The EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs)

in large, centrally fueled fleets in metropolitan areas. The EPO Act requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in the EPO Act. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly fivefold increase over current levels. It also reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

By addressing renewable fuels and the CAFE standards, the Energy Independence and Security Act of 2007 builds upon progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century; however, in August of 2018, the NHTSA and EPA proposed the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, which, if adopted, would decrease the stringency of CAFE standards. The Proposed Rule would maintain the existing standards until 2020 with a zero percent increase in fuel efficiency until 2026. Part One of the SAFE Rule, which became effective on November 26, 2019, revokes the federal Clean Air Act waiver that California obtains from EPA to set more stringent fuel economy standard. At the time of preparing this environmental document, the exact implications of the SAFE Rule on the energy efficiency of California's vehicle fleet is unknown.

STATE

Warren-Alquist Act

The 1974 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The creation of the act occurred as a response to the State legislature's review of studies projecting an increase in statewide energy demand, which would potentially encourage the development of power plants in environmentally sensitive areas. The act introduced State policy for siting power plants to reduce potential environmental impacts and sought to reduce demand for these facilities by directing CEC to develop statewide energy conservation measures to reduce wasteful, inefficient, and unnecessary uses of energy. Conservation measures recommended establishing design standards for energy conservation in buildings, which ultimately resulted in the creation of the Title 24 Building Energy Efficiency Standards (California Energy Code). These standards are updated regularly and remain in effect today. The act additionally directed CEC to coordinate with the Governor's Office of Planning and Research, the California Natural Resources Agency, and other interested parties in ensuring that a discussion of wasteful, inefficient, and unnecessary consumption of energy is included in all CEQA-related environmental documents for projects undergoing environmental review.

State of California Energy Action Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current plan is the 2003 *Energy Action Plan* (2008 update), which calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assisting

public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, as well as encouraging urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

The 2008 update has been supplemented by the 2019 California Energy Efficiency Action Plan, which includes three goals to drive energy efficiency: doubling energy efficiency savings by 2030, removing and reducing barriers to energy efficiency in low-income and disadvantaged communities, and reducing greenhouse gas (GHG) emissions from the buildings sector (CEC 2019).

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to AB 2076 (Chapter 936, Statutes of 2000), CEC and the California Air Resources Board (CARB) prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003). Further, in response to CEC's 2003 and 2005 Integrated Energy Policy Reports (IEPRs), the governor directed CEC to take the lead in developing a long-term plan to increase alternative fuel use.

A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand by 2030.

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required CEC to "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (PRC Section 25301[a]). This work culminated in preparation of the first IEPR.

CEC adopts an IEPR every 2 years and an update every other year. The 2019 IEPR, which is the most recent IEPR, was adopted January 31, 2020. The 2019 IEPR provides a summary of priority energy issues currently facing the state, outlining strategies and recommendations to further the State's goal of ensuring reliable, affordable, and environmentally responsible energy sources. Energy topics covered in the report include progress toward statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the state's energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to statewide energy policies; and issues facing California's nuclear power plants (CEC 2020a).

Legislation Associated with Electricity Generation

The state has passed multiple pieces of legislation requiring the increasing use of renewable energy to produce electricity for consumers. California's Renewable Portfolio Standard (RPS) Program was established in 2002 (SB 1078) with the initial requirement to generate 20 percent of their electricity from renewable by 2017, 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011), 52 percent by 2027 (SB 100 of 2018), 60 percent by 2030 (also SB 100 of 2018), and 100 percent by 2045 (also SB 100 of 2018). More detail about these regulations is provided in Section 4.19, "Greenhouse Gas Emissions and Climate Change."

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other state, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of

nonpetroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce greenhouse gas (GHG) emissions, and increase in-state production of biofuels without causing a significant degradation to public health and environmental quality.

California Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Energy Code. The code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy-efficiency standards for residential and nonresidential buildings. CEC updates the California Energy Code every 3 years, typically including more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions.

The 2019 California Energy Code was adopted by CEC on May 9, 2018, and will apply to projects constructed after January 1, 2020. CEC estimates that the combination of required energy-efficiency features and mandatory solar panels in the 2019 California Energy Code will result in new residential buildings that use 53 percent less energy than those designed to meet the 2016 California Energy Code. CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficacy lighting (CEC 2018).

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards, also known as CALGreen, is a reach code (i.e., optional standards that exceed the requirements of mandatory codes) developed by CEC that provides green building standards for statewide residential and nonresidential construction. The current version is the 2019 CALGreen Code, which took effect on January 1, 2020. As compared to the 2016 CalGreen Code, the 2019 CalGreen Code strengthened sections pertaining to EV and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CalGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and used as guidelines by state agencies for meeting the requirements of Executive Order B-18-12.

Legislation Associated with Greenhouse Gas Reduction

The state has passed legislation that aims to reduce GHG emissions. The legislation often has an added benefit of reducing energy consumption. SB 32 requires a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. Executive Order S-3-05 sets a long-term target of reducing statewide GHG emissions by 80 percent below 1990 levels by 2050.

SB 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. The Advanced Clean Cars program, approved by CARB, combines the control of GHG emissions and criteria air pollutants and the increase in the number of zero-emission vehicles into a single package of standards. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

Implementation of the state's legislation associated with GHG reduction will have the co-benefit of reducing California's dependency on fossil fuel and making land use development and transportation systems more energy efficient.

More details about legislation associated with GHG reduction are provided in the regulatory setting of Section 3.7, "Greenhouse Gas Emissions and Climate Change."

LOCAL

City of Elk Grove General Plan

The City of Elk Grove General Plan includes policies that promote energy conservation and reduction strategies (City of Elk Grove 2019):

- ▶ **Policy H-2-3:** Support energy-conserving programs in the production and rehabilitation of affordable housing to reduce household energy costs, improve air quality, and mitigate potential impacts of climate change in the region.
- ▶ **Policy NR-2-4:** Preserve and plant trees in appropriate densities and locations to maximize energy conservation and air quality benefits.
- ▶ **Policy NR-4-1:** Require all new development projects which have the potential to result in substantial air quality impacts to incorporate design, and/or operational features that result in a reduction in emissions equal to 15 percent compared to an “unmitigated baseline project.” An unmitigated baseline project is a development project which is built and/or operated without the implementation of trip reduction, energy conservation, or similar features, including any such features which may be required by the Zoning Code or other applicable codes.
- ▶ **Policy NR-6-1:** Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources.
- ▶ **Policy NR-6-3:** Promote innovation in energy efficiency.
- ▶ **Policy NR-6-5:** Promote energy conservation measures in new development to reduce on-site emissions and seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.
- ▶ **Policy NR-6-6:** Encourage renewable energy options that are affordable and benefit all community members.
- ▶ **Policy NR-6-7:** Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy.

City of Elk Grove Climate Action Plan

The *City of Elk Grove Climate Action Plan: 2019 Update (CAP)*, adopted in February 2019 and amended in December 2019 by the Elk Grove City Council, was incorporated into the most recent update to the General Plan (discussed above). The CAP includes GHG emission reduction targets, strategies, and implementation measures developed to help the City reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space. The following City goals are related to transportation and energy use (City of Elk Grove 2019):

- ▶ Encourage or Require Green Building Practices in New Construction,
- ▶ Phase in Zero Net Energy Standards in New Construction,
- ▶ Solar Photovoltaics in New and Existing Residential and Commercial Development,
- ▶ Limit Vehicle Miles Traveled,
- ▶ Require Tier 4 Final Construction Equipment by 2030, and
- ▶ Require EV [electric vehicle] Charging Stations for All New Development.

City of Elk Grove Municipal Code

Municipal Code Chapter 16.07 provides permitting guidance for EV charging stations. Municipal Code Sections 16.07.200 through 16.07.500 summarize the streamlined permitting process for installation of EV charging stations including provisions pertaining to the completion of a technical review checklist that ensures that installation of an EV charging station would not result in any adverse environmental or health effects. As stated in Municipal Code Section 16.07.400, “the intent of this chapter [is] to encourage the installation of electric vehicle charging stations by removing

obstacles to permitting for charging stations so long as the action does not supersede the Building Official's authority to address higher priority, life-safety situations."

Municipal Code Section 23.58.120 requires one "EV ready" parking space for all new one family and two family dwelling units. This section also requires that 2.5 percent of parking for multifamily projects provide EV charging and an additional 2.5 percent of parking be ready for future EV charging expansion.

3.5.2 Environmental Setting

ELECTRICITY AND NATURAL GAS USE

Electric services are provided to the City from Sacramento Municipal Utility District (SMUD). Natural gas is supplied to the City from Pacific Gas and Electric (PG&E). See Section 3.14, "Utilities and Service Systems," for more detailed information on electrical and natural gas infrastructure specifically serving the Project area.

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California is natural gas. In 2019, approximately 34 percent of natural gas consumed in the state was used to generate electricity. Large hydroelectric powered approximately 15 percent of electricity and renewable energy from solar, wind, small hydroelectric, geothermal, and biomass combustion totaled 32 percent (CEC 2020b). In 2019, SMUD provided its customers with 28 percent eligible renewable energy (i.e., biomass combustion, geothermal, small scale hydroelectric, solar, and wind) and 44 percent and 27 percent from large scale hydroelectric and natural gas, respectively (SMUD 2020). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors. SMUD is the primary electricity and natural gas service provider in Sacramento County.

The proportion of SMUD-delivered electricity generated from eligible renewable energy sources is anticipated to increase over the next three decades to comply with the SB 100 goals described in Section 3.5.1.

ENERGY USE FOR TRANSPORTATION

In 2018, the transportation sector comprised the largest end-use sector of energy in the state totaling 39.1 percent, followed by the industrial sector totaling 23.5 percent, the commercial sectors at 19.2 percent, and the residential sector of 18.3 percent (EIA 2020). On-road vehicles use about 90 percent of the petroleum consumed in California. CEC reported retail sales of 600 million and 41 million gallons of gasoline and diesel, respectively, in Sacramento County in 2019 (the most recent data available) (CEC 2020c). The California Department of Transportation (Caltrans) projects that 996 million gallons of gasoline and diesel will be consumed in Sacramento County in 2030 (Caltrans 2008).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced substantial evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth's temperature (IPCC 2014 and OPR, CEC, and CNRA 2018). For an analysis of greenhouse gas production and the Project's contribution to climate change, see Section 3.7, "Greenhouse Gas Emissions and Climate Change."

3.5.3 Impacts and Mitigation Measures

METHODOLOGY

The following impact analysis is based primarily on review of the information and analysis presented in the General Plan EIR then compared to Project-related modeling performed for this analysis.

Energy consumed by the Project during construction would include gasoline and diesel fuel, measured in gallons. Gasoline, and some diesel fuel, would be consumed from worker commute trips to and from the Project area. Diesel would primarily be consumed to operate heavy-duty equipment such as dozers, tractors, and pavers and to support haul truck trips. Emissions factors from CARB's EmissionFactor 2017 program were used to calculate the average fuel economy for vehicles operating within Sacramento County by year (2021–2029).

Energy consumed during operation would include electricity and direct natural gas consumption, measured in megawatt-hours per year. Natural gas would also be indirectly combusted from electricity demand.

Building-related energy consumption estimates for maximum extent housing sites proposed under the Housing Element Update that are identified in Table 2-3 of Chapter 2, "Project Description," were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 computer software (CAPCOA 2017). Where Project-specific information was unknown, CalEEMod default values based on the Project area were used. CalEEMod default electricity consumption rates were adjusted to account for energy-efficiency improvements from the 2019 California Energy Code, which would result in a 53 and 30-percent reduction in energy consumption in residential and nonresidential buildings, respectively, compared with the 2016 California Energy Code included in CalEEMod (CEC 2018a). Implementation of the Safety Element Update would not result in the creation of new buildings or features that would have operational emissions. Thus, this issue is not address below.

Operational fuel use estimates were calculated using EMFAC 2017 using the estimated level of VMT associated with the Project as described in Section 3.13, "Transportation."

Refer to Appendix C for detailed assumptions and modeling results.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on Appendix G of the State CEQA Guidelines. The Project would cause a significant impact related to energy if it would:

- ▶ result in a potentially significant environmental impact related to wasteful, inefficient, or unnecessary consumption of energy during project construction or operation; or
- ▶ conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy during Project Construction or Operation

The General Plan EIR evaluated the energy consumption associated with the land uses proposed under the General Plan and concluded that energy consumption would not be wasteful, inefficient, or unnecessary because development would be required to comply with the most recent versions of the California Energy Code and actions under the Elk Grove CAP that include zero net energy requirements in 2020 and 2030 for residential and commercial development. Implementation of the Housing Element and Safety Element Update could result in the consumption of additional energy supplies during construction in the form of gasoline and diesel fuel consumption; however, this energy expenditure would not be considered wasteful when compared to other construction projects. Operation of housing sites under the Housing Element Update would also result in additional energy consumption but would be required to comply with the most recent version of the California Energy Code and the CAP. Implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe energy impacts that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Impact 5.7.3 of the General Plan EIR evaluated whether implementation of the proposed land uses under the General Plan would result in the wasteful, inefficient, or unnecessary consumption of energy. The General Plan EIR concluded that construction-related energy expenditures would be less than significant due to the inherent short-term nature of construction. The General Plan EIR also determined that operational energy usage would be less than significant because future development would comply with applicable future versions of the California Energy Code. Also, the General Plan and CAP included policies and actions that would reduce energy consumption.

Most of the construction-related energy consumption for the housing sites under the Housing Element Update and improvements for emergency access and evacuation associated with implementation of the Safety Element Update would be associated with off-road equipment and the transport of equipment and materials using on-road haul trucks.

An estimated 1,292,200 gallons of gasoline and 2,715,000 gallons of diesel fuel may be used during construction of the housing sites proposed under the Housing Element Update (see Appendix C for a summary of construction calculations). The energy needs for construction is assumed to occur over a roughly 8-year period and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Gasoline and diesel would also be consumed during worker commute trips. Energy would be required to transport demolition waste and excavated materials. The one-time energy expenditure required to construct the housing sites (spread over the estimated 8-year buildout period) would be nonrecoverable. There is no atypical construction-related energy demand associated with the housing sites. Nonrenewable energy would not be consumed in a wasteful, inefficient, or unnecessary manner when compared to other construction activity in the region. Additionally, as shown in Appendix C, on-road gasoline and diesel fuel consumption associated with construction activity would go down every year as the vehicle fleet becomes more fuel-efficient over time. Implementation of potential emergency access and evacuation improvements under the Safety Element Update could also result in temporary energy use during construction.

Table 3.5-1 summarizes the anticipated operational electricity use, natural gas combustion, and gasoline and diesel fuel consumption associated with the operation of the maximum extent housing sites proposed under the Housing Element Update. This would be typical of residential, commercial, and educational land uses requiring electricity and natural gas for lighting, space and water heating, climate control, home appliances, and landscape maintenance activities.

The Project would increase electricity and natural gas consumption relative to existing conditions; however, construction and operation would not require additional or new electrical or natural gas infrastructure outside of the General Plan area (see Section 3.14, "Utilities and Service Systems").

Housing site development would be required to adhere to the 2019 California Energy Code and any subsequent code updates, historically every three years, throughout the project lifetime. Additionally, as compared to the existing zoning under the General Plan, several parcels would be rezoned to be greater density. For instance, parcels C-1, Sterling Meadows High-Density Residential Site, C-3, Laguna Boulevard and Bruceville Road, and C-4, 2804 Elk Grove Boulevard (among several others) are proposed to be rezoned to RD-30 to provided additional higher-density, affordable housing to meet the City's housing needs (see Table 2-2 in Chapter 2, "Project Description." More densely operated land uses would improve the energy efficiency of the City's residences on a per capita basis as compared to the less dense land uses currently included in the existing Housing Element and General Plan.

Table 3.5-1 Project Operational Energy Consumption for Housing Element Update Housing Sites (2030)

Energy Type	Energy Consumption	Units
Electricity	35,208	MWh/year
Natural Gas	352,077	therms/year
Gasoline	2,180,942	gal/year
Diesel	461,273	gal/year

Notes: MWh/year = megawatt-hours per year; therm/year = thermal units per year, gal/year = gallons per year.

Source: Calculations by Ascent Environmental in 2020

Although energy use was modeled to reflect 2019 California Energy Code, new iterations of the Code are likely, based upon prior State actions, to become increasingly more stringent with updates to the efficiency standards until the Project's final buildout year. The California Energy Code is one mechanism that will assist the state in reaching its long-term energy goals of achieving carbon neutrality by 2045 as mandated by SB 100 (discussed in Section 3.5.1, "Regulatory Setting"). This would result in increased building energy efficiency over time as buildings continue to be developed within the City. Moreover, future development under the Housing Element would be supplied with energy resources that will become increasingly more renewable as utilities (i.e., SMUD) comply with the benchmark goals contained in the RPS (also see Section 3.5.1, "Regulatory Setting"). Additionally, as stated above, the Project would result in greater residential density as existing and candidate sites are rezoning to higher density in response to the City's forecasted housing needs resulting in greater energy efficiency per capita.

Notably, the values presented in Table 3.5-1 for electricity and natural gas consumption are associated with the design elements of the 2019 Title 24 California Building Code. It is foreseeable that the Title 24 California Building Code, and the relevant parts that improve the energy efficiency of residential and nonresidential development (i.e., Part 6, California Energy Code, and Part 11, California Green Building Standards Code), is updated on its triennial basis. At this time, it is unknown how energy efficiency will be upgraded in code updates. Therefore, this analysis provides a more conservative estimate of future energy consumption as it is expected that the Title 24 California Building Code in effect in 2030 would result in more energy efficient development to assist the state in meeting its long-term energy and climate change goals such as SB 100 (See Section 3.7, "Greenhouse Gas Emissions and Climate Change," for additional discussion of applicable statewide regulations, policies, and plans that address reducing GHG emissions associated with the energy sector).

Implementation of the Housing Element and Safety Element Update would also be subject to the energy efficiency actions of the CAP (see Impact 3.5-2). This would be demonstrated through site design submittals and applications for subsequent housing projects for City review and approval under the City's design review process. Therefore, the Project would not have a more severe impact than what was identified 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 CAP and the 2019 California Energy Code and any subsequent code updates.

Impact 3.5-2: Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency

The General Plan EIR evaluated consistency with applicable state or local plans for renewable energy and energy efficiency and concluded that the land use under the General Plan would not conflict with an applicable plan. Implementation of the Housing Element and Safety Element Update could increase energy demands compared to existing conditions; however, development would be required to comply with applicable California Energy Code. Additionally, the City's CAP contains several measures that would apply to the housing sites that would reduce overall energy demand. As a result, implementation of the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the Housing Element and Safety Element Update would not have a more severe impact than what was identified in the General Plan EIR. This impact would be **less than significant**.

Impact 5.7-3 of the General Plan EIR evaluated the consistency of land uses under the General Plan against applicable renewable energy and energy efficiency plans, including the City's CAP. The General Plan EIR concluded that because several CAP measures would result in reduced energy demand in addition to reducing GHG emissions, that the General Plan would be consistent with the CAP. The CAP, though designed to reduce GHG emissions specifically, concurrently plays a role in improving energy efficiency and enhancing renewable energy resources, and therefore may be considered to be a plan for renewable energy or energy efficiency.

As noted above, housing sites under the Housing Element Update would be required to comply with the California Energy Code, which are intended to increase the energy efficiency of new development projects in the state. The 2019 California Energy Code (and subsequent updates), which the Project is subject to, is designed to move the state closer to its zero-net energy goals. For these same reasons, the Project would be consistent with the energy conservation Goals and Policies expressed in the City's General Plan identified above in Section 3.5.1, "Regulatory Setting." As also stated in Section 3.5.1, SMUD, as an electricity utility, is required to comply with the future benchmarks of the state's RPS (i.e., 52 percent renewable by 2027, 60 percent by 2030, and 100 percent by 2045). Because electricity utilities in the state are required to increase the percentage of renewable energy sources in the electricity they provide, over time electricity consumed as part of the Project will increasingly be provided by renewable sources.

Additionally, as discussed in the General Plan EIR, the City's CAP contains several measures that would reduce energy demand and increase the City's capacity to generate renewable resources that would apply to the housing sites under the Housing Element Update:

- ▶ **BE-1. Building Stock: Promote Energy Conservation.** Promote energy conservation by residents and businesses in existing structures in close coordination with other agencies and local energy providers, including the Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric (PG&E).
- ▶ **BE-5. Building Stock: Phase in Zero Net Energy Standards in New Construction.** Phase in zero net energy (ZNE) standards for new construction, beginning in 2020 for residential projects and 2030 for commercial projects. Specific phase-in requirements and ZNE compliance standards will be supported by updates in the triennial building code updates, beginning with the 2019 update.
- ▶ **BE-6. Building Stock: Electrification in New and Existing Residential Development.** Encourage and incentivize new residential developments to include all-electrical appliances and HVAC systems in the design of new projects. Support local utilities in implementing residential retrofit programs to help homeowners convert to all electrical appliances and HVAC systems. Explore the feasibility of phasing in minimum standards for all-electric developments. For certain projects that the City determines are not exempt from CEQA (i.e., an environmental document is required) and that qualify for project-level GHG analysis streamlining under CEQA Guidelines Section 15183.5, compliance with this measure may be required as a mitigation measure, unless other measures are determined by the City to achieve equivalent GHG reductions such that the CAP remains on track to achieving the overall GHG reduction target.

- ▶ **BE-7. Building Stock: Solar Photovoltaics in New and Existing Residential and Commercial Development.** Encourage and require installation of on-site solar photovoltaic (PV) in new single-family and low-rise multi-family developments. Promote installation of on-site PV systems in existing residential and commercial development.
- ▶ **BE-8. SMUD Greenergy and SolarShares Programs.** Encourage participation in SMUD's offsite renewable energy programs (i.e., Greenergy, SolarShares), which allow building renters and owners to opt into cleaner electricity sources.
- ▶ **ACM-5. Affordable Housing.** Continue to promote and require the development of affordable housing in the City.

Additionally, Municipal Code Chapter 16.07 provides streamlined permitting for EV charging stations. Future development constructed and operated under the Housing Element Update that seeks to install EV charging stations would be entitled to use the streamlining mechanisms outlined in Municipal Code Chapter 16.07. Municipal Code Section 23.58.120 requires one "EV ready" parking space for all new one family and two family dwelling units. This section also requires that 2.5 percent of parking for multifamily projects provide EV charging and an additional 2.5 percent of parking be ready for future EV charging expansion. Compliance with these measures would be demonstrated in subsequent project building and site plan submittals for building permit approval and/or design review.

Therefore, the Project would not have a more severe impact than what was identified 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 CAP, including measures BE-1, BE-5, BE-6, BE-7, BE-8, and ACM-5, and Municipal Code Chapter 16.07 and Section 23.58.120.

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3.6 GEOLOGY AND SOILS

This section describes current conditions relative to geology and soils in Elk Grove. It includes a description of geologic soil conditions, analysis of environmental impacts, and recommendations for mitigation measures for any significant or potentially significant impacts. 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).

No comments pertaining to geology and soils were received in response to the notice of preparation (NOP).

3.6.1 Regulatory Setting

FEDERAL

National Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act (42 United States Code Sections 7701–7706) to reduce the risks to life and property from future earthquakes in the United States. To accomplish this reduction in risk, the act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of the NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Alquist-Priolo Act) (PRC Sections 2621–2630) intends to reduce the risk to life and property from surface fault rupture during earthquakes by regulating construction in active fault corridors and by prohibiting the location of most types of structures intended for human occupancy across the traces of active faults. The act defines criteria for identifying active faults, giving legal support to terms such as “active” and “inactive,” and it establishes a process for reviewing building proposals in Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned, and construction along or across these zones is strictly regulated if they are “sufficiently active” and “well-defined.” A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the act as within the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Bryant and Hart 2007). Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, the relevant city or county must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

Seismic Hazards Mapping Act

The intention of the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is to reduce damage resulting from earthquakes. Whereas the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The act’s provisions are similar to those of the Alquist-Priolo Act: The State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development.

California Building Code

The California Building Code (CBC) (CCR Title 24) is based on the International Building Code, but it reflects California conditions and has more detailed or more stringent regulations than the International Building Code. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, while Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBC regulates grading activities, including drainage and erosion control.

National Pollutant Discharge Elimination System Construction General Permit for Stormwater Discharges Associated with Construction Activity

The State Water Resources Control Board has adopted a Statewide National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction Activity (SWRCB Construction General Permit Order 2009-0009-DWQ). The State requires that projects disturbing more than 1 acre of land during construction file a Notice of Intent with the regional water quality control board (RWQCB) to be covered under this permit. Construction activities subject to the general permit include clearing, grading, stockpiling, and excavating. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A storm water pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management practices (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

Regulations Regarding Paleontological Resources

Paleontological resources on private property are considered the property of the landowner and receive no particular legal protection unless otherwise addressed in the conditions of approval of a land development permit, as mitigation in an applicable CEQA document, or through local policy and/or regulation (see below). Paleontological resources on public lands are protected by State statute (PRC Chapter 1.7, Section 5097.5, Archeological, Paleontological, and Historical Sites and Appendix G). This statute states:

A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

LOCAL

City of Elk Grove General Plan

The City of Elk Grove General Plan contains the following policies and standards related to geology, soils, and seismicity that apply to the Project (City of Elk Grove 2019):

- ▶ **Policy NR-3-1:** Ensure that the quality of water resources (e.g. groundwater, surface water) is protected to the extent possible.
- ▶ **Policy NR-3-2:** Integrate sustainable stormwater management techniques in site design to reduce stormwater runoff and control erosion.
 - **Standard NR-3-2.b:** Roads and structures shall be designed, built, and landscaped so as to minimize erosion during and after construction.
- ▶ **Policy NR-3-3:** Implement the City's National Pollutant Discharge Elimination System permit through the review and approval of development projects and other activities regulated by the permit.

City of Elk Grove Municipal Code

Chapter 16.04 (California Building Code)

Chapter 16.04 of the Municipal Code consists of the adoption of the 2019 edition of the CBC, Title 24, Part 2, Volumes 1 and 2, published by the International Code Council, administrative sections, Chapter 29, Appendices C, I, and O; and amendments, as adopted by the Building Standards Commission of the State of California and codified at Title 24, Part 2, in the CCR.

Chapter 16.44 (Land Grading and Erosion Control)

Chapter 16.44 of the Municipal Code establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation, and other pollutant runoff, including construction debris and hazardous substances used on construction sites, and disruption of existing drainage and related environmental damage caused by land clearing, grubbing, grading, filling, and land excavation activities. The chapter applies to projects that would disturb 350 cubic yards or more of soil. The intent of the ordinance is to minimize damage to surrounding properties and public rights-of-way, minimize degradation of water quality in watercourses, minimize disruption of natural or City-authorized drainage flows caused by construction activities, and make projects comply with the provisions of the City's NPDES Permit Number CA0082597, issued by the RWQCB. The City of Elk Grove is a co-permittee on an NPDES permit, along with Sacramento County and the Cities of Sacramento, Folsom, Galt, and Citrus Heights.

The reader is referred to Section 3.9, "Hydrology and Water Quality," for a discussion of Municipal Code Chapter 15.12 (Stormwater Management and Discharge Control).

3.6.2 Environmental Setting

REGIONAL GEOLOGY

Elk Grove is located within the Sacramento Valley and lies centrally in the Great Valley geomorphic province of California. The Great Valley geomorphic province is an alluvial plain approximately 50 miles wide and 400 miles long located in central California, bounded on the north by the Klamath and Cascade mountain ranges, on the east by the Sierra Nevada and the Foothills Fault Zone, and on the west by the Great Valley Fault Zone and Coast Ranges. Sediments consisting of Cenozoic non-marine (continental) sedimentary rocks and alluvium (loose, unconsolidated soil) have been deposited in the Great Valley geomorphic province almost continuously since the Jurassic period, approximately 160 million years ago. Siltstone, claystone, and sandstone are the primary types of sedimentary deposits. The Sacramento River, which drains the east side of the Great Valley into the Sacramento-San Joaquin Delta, is located west of the City, and is the region's major northern drainage (City of Elk Grove 2018:5.6-1).

LOCAL GEOLOGY AND TOPOGRAPHY

Elk Grove is primarily underlain by the Riverbank Formation. A section of the Laguna Formation runs north to south through the center of the City. The Laguna Formation consists of lenticular cobble gravel, sand, and small amounts of reddish to yellowish brown silt from metamorphic, granitic, and volcanic sources. This sediment is located only in the east and northeast portions of the city (City of Elk Grove 2018:5.6-5).

Sediments in the Riverbank Formation consist of weathered reddish gravel, sand, and silt that form alluvial terraces and fans. In the Sacramento Valley, this formation contains more mafic igneous rock fragments than the San Joaquin Valley, and thus tends toward stronger soil profile developments that are more easily distinguishable from the Modesto Formation which overlies the Riverbank Formation. The Riverbank Formation is Pleistocene in age, but is considerably older than the Modesto Formation; estimates place it between 130,000 and 450,000 years BP. Similar to the Modesto Formation, the Riverbank Formation forms alluvial fans and terraces of the Feather and Bear Rivers; however, Riverbank fans and terraces are higher in elevation and generally have a more striking topography than

those formed by the Modesto Formation. Most of the sediments in the Planning Area are Riverbank Formation (City of Elk Grove 2018:5.6-5).

Elk Grove is flat, with little variation in topography. Elevations range from 10 feet above average sea level in the west to 150 feet in the east (City of Elk Grove 2018:5.6-1).

GROUNDWATER

Elk Grove is situated within the Sacramento Valley Groundwater Basin, South American Subbasin. Within the South American Subbasin, there are three groundwater basins in Sacramento County, North, Central, and South; Elk Grove overlies the Central Basin. The Central Basin also includes areas of Sacramento County and the City of Sacramento (City of Elk Grove 2018:5.9-14).

Groundwater in the Central Basin generally occurs in a shallow aquifer zone (Laguna or Modesto Formation) or in an underlying deeper aquifer zone (Mehrten Formation). There is some potential for movement of groundwater between the two aquifers, usually the result of heavy groundwater pumping, and the effects on groundwater levels are a function of whether the pumping occurs in the shallow aquifer or the deeper aquifer (City of Elk Grove 2018:5.9-14).

SOILS

The City of Elk Grove General Plan Update identified 38 soil types within the City. The San Joaquin soil series is the most prevalent in Elk Grove. Along with similar soil types, these account for nearly 85 percent of soils in the City. The San Joaquin series is alluvium deposits from mostly granitic rocks. It has a breadth of characteristics that can vary from loam to clay, depending on soil depth. Typically, these soils are well- or moderately well-drained with medium to very high runoff potential and very slow permeability (City of Elk Grove 2018:5.6-3).

EXPANSIVE SOILS

Expansive soils (also known as shrink-swell soils) are soils that contain expansive clay minerals that can absorb significant amounts of water. The presence of these clay minerals makes the soil prone to large changes in volume in response to changes in water content. When an expansive soil becomes wet, water is absorbed and it increases in volume, and as the soil dries it contracts and decreases in volume. This repeated change in volume over time can produce enough force and stress on buildings, underground utilities, and other structures to damage foundations, pipes, and walls.

The quantity and type of expansive clay minerals affects the potential for the soil to expand or contract. The San Joaquin soil group, the main soil series in the Planning Area, has potential for expansion because of its high proportion of clay, especially at depths of 16 inches or greater (City of Elk Grove 2018:5.6-4).

SUBSIDENCE

Land subsidence is the gradual settling or sinking of an area with little horizontal motion. Subsidence can be induced by both natural and human phenomena. Natural phenomena include shifting of tectonic plates and dissolution of limestone, resulting in sinkholes. Human-related activity that can cause subsidence includes pumping water, oil, and gas from underground reservoirs; collapse of underground mines; drainage of wetlands; and soil compaction.

Elk Grove is located over a principal groundwater basin in a potential subsidence area, making groundwater pumping the City's largest potential cause for subsidence (City of Elk Grove 2018:5.6-4). The U.S. Geological Survey (USGS) provides an interactive map that identifies documented areas of land subsidence (USGS 2020). The closest areas of reported land subsidence are located west of Sacramento, in Davis and Woodland, and west of Lodi, within the Sacramento–San Joaquin Delta (Luhdorff & Scalmanini 2014). Therefore, the risk from regional subsidence at the site is considered low.

LIQUEFACTION AND LATERAL SPREADING

Liquefaction is a phenomenon in which loose, saturated, granular soil deposits lose a significant portion of their shear strength because of excess pore water pressure buildup. An earthquake typically causes the increase in pore water pressure and subsequent liquefaction. These soils are behaving like a liquid during seismic shaking and re-solidify when shaking stops. The potential for liquefaction is highest in areas with high groundwater and loose, fine, sandy soils at depths of less than 50 feet. Liquefaction may also lead to lateral spreading. Lateral spreading (also known as expansion) is the horizontal movement or spreading of soil toward an "open face," such as a streambank, the open side of fill embankments, or the sides of levees. It often occurs in response to liquefaction of soils in an adjacent area. The potential for failure from lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high.

The soils underlying the city are relatively dense/stiff and the upper 50 feet of soil are above the depth of groundwater; therefore, the potential for liquefaction in Elk Grove is considered low. The potential for ground lurching, differential settlement, or lateral spreading to occur during or after seismic events in Elk Grove is also considered low (City of Elk Grove 2018:5.6-3).

PALEONTOLOGICAL RESOURCES

Significant nonrenewable vertebrate and invertebrate fossils and unique geologic units have been documented throughout California. The fossil-yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource. All sedimentary rocks, some volcanic rocks, and some low-grade metamorphic rocks have potential to yield significant paleontological resources. Depending on location, the paleontological potential of subsurface materials generally increases with depth beneath the surface, as well as with proximity to known fossiliferous deposits.

Pleistocene or older (older than 11,000 years) continental sedimentary deposits are considered to have a high paleontological potential, while Holocene-age deposits (less than 10,000 years old) are generally considered to have a low paleontological potential because they are geologically immature and are unlikely to have fossilized the remains of organisms. Metamorphic and igneous rocks have a low paleontological potential, either because they formed beneath the surface of the earth (such as granite), or because they have been altered under high heat and pressures, chaotically mixed or severely fractured. Generally, the processes that form igneous and metamorphic rocks are too destructive to preserve identifiable fossil remains.

The Great Valley geomorphic province is composed of thousands of feet of sedimentary deposits that have undergone periods of subsidence and uplift over millions of years. During the Jurassic and Cretaceous periods of the Mesozoic era, the Great Valley existed in the form of an ancient ocean. By the end of the Mesozoic, the northern portion of the Great Valley began to fill with sediment as tectonic forces caused uplift of the basin. By the time of the Miocene epoch, approximately 24 million years ago, sediments deposited in the Sacramento Valley were mostly of terrestrial origin. Most of the surface of the Great Valley is covered with Holocene and Pleistocene alluvium composed of sediments from the Sierra Nevada and the Coast Range. Elk Grove is primarily underlain by two formations that are sensitive for paleontological resources (City of Elk Grove 2018:5.6-5).

The Laguna Formation consists of lenticular cobble gravel, sand, and small amounts of reddish to yellowish brown silt from metamorphic, granitic, and volcanic sources. This formation is known to produce Pliocene fossils. As a result, this formation has a high sensitivity rating. The Riverbank Formation in the Elk Grove area is known to produce vertebrate fossils dating to the late Pleistocene. The fossils recovered to date from the Riverbank Formation are typically large, late Pleistocene vertebrates, although fish, frogs, snakes, turtles, and a few plants such as prune, sycamore, and willow are known as well. The typically large, Rancholabrean vertebrates include bison, horse, camel, mammoth, ground sloth, and wolf. The Rancholabrean fauna and flora are well known in California, and they typically include many more species than reported from Sacramento County. As a result, this formation has a high sensitivity rating (City of Elk Grove 2018:5.6-5).

3.6.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following impact analysis is based primarily on review of the information and analysis presented in the General Plan EIR as well as available literature, including documents published by the City of Elk Grove, State and federal agencies, and published information dealing with geotechnical conditions in the Elk Grove area. Where the General Plan EIR concluded that there would be no impacts or impacts would be less than significant impacts are not evaluated in detail herein.

Further, in response to 2018 revisions to the State CEQA Guidelines (Public Resources Code Section 15126.2) and the 2015 California Supreme Court case, *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, impacts associated with exposure of a project to environmental hazards are not considered significant effects unless the project would exacerbate the risks from such hazards. However, because lead agencies retain the authority, separate and apart from CEQA, to include a review of potential impacts of the environment on a project, the analysis of geologic hazards in this section considers whether the Housing Element and Safety Element Update could cause or exacerbate geologic hazards impacts.

THRESHOLDS OF SIGNIFICANCE

A geology and soils impact is considered significant if implementation of the Project would do any of the following:

- ▶ directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death through the rupture of a known earthquake fault or strong seismic ground shaking;
- ▶ result in substantial soil erosion or the loss of topsoil;
- ▶ locate project facilities on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- ▶ locate project facilities on expansive soil, creating substantial direct or indirect risks to property;
- ▶ have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems; and/or
- ▶ directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

ISSUES NOT DISCUSSED FURTHER

Seismic Hazards

The City is not within an Alquist-Priolo Earthquake Fault Zone and would not be subject to hazards associated with significant fault surface rupture. However, the City could experience strong seismic ground shaking and seismic-related ground movement from earthquakes on active faults in the region and state. Impact 5.6.1 of the General Plan EIR evaluated the seismic hazards within the City. CBC standards, as implemented by the City through City of Elk Grove Municipal Code Section 16.04.010 would address seismic hazards. There are no aspects of the proposed Housing Element and Safety Element Update that would increase the potential for seismic activity, or the inherent risks associated with such activity. Therefore, no significant impact would occur and this issue is not discussed further.

Wastewater Disposal Systems

Effects on wastewater disposal systems were addressed in Impact 5.6.4 of the General Plan EIR that of septic or alternative wastewater treatment systems is anticipated to be minimal, and if such systems are used, they would be required to obtain a permit from Sacramento County in accordance with Chapter 6.32 of the Sacramento County Code. With implementation of proposed General Plan policies and existing regulations, implementation of the

General Plan would not result in conditions where soils would not be capable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. All of the proposed housing sites identified in the Housing Element Update are expected to obtain public wastewater service and are located in the Sacramento Area Sewer District boundaries. Therefore, no significant impact would occur and this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: Result in Substantial Soil Erosion

The General Plan EIR determined that the potential for erosions resulting from future development activities would be mitigated to a less-than-significant level through implementation of City Municipal Code Chapter 16.44 and the requirements of NPDES Permit Number CA0082597 that provides standards for erosion control. Grading and excavation activities resulting from implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe impact to soil erosion that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Construction of subsequent housing under the Housing Element Update and implementation of the Safety Element Update could require the demolition of structures, trenching, and grading and excavation. These construction activities would result in temporary disturbance of soil and would expose disturbed areas to storm events. Rain of sufficient intensity and duration could dislodge soil particles, generate runoff, and cause localized erosion and sedimentation. Soil disturbance during the summer months could result in loss of topsoil due to wind erosion and runoff from thunderstorm events. Erosion poses two hazards: (1) it removes soils, thereby undermining roads and buildings and producing unstable slopes, and (2) it deposits eroded soil in reservoirs, lakes, drainage structures, and on roads as mudslides. Natural erosion is frequently accelerated by human activities such as site preparation for construction and alteration of topographic features. These soil erosion impacts from construction activities were identified in Impact 5.6.2 of the General Plan EIR.

Project proponents must comply with the CBC and federal NPDES program, which would require implementation of BMPs that reduce the potential for erosion and loss of topsoil. Because implementation of the Project could result in construction that may disturb more than 1 acre of soil, construction would be subject to the Statewide Construction General NPDES Permit Number CA0082597. Coverage under this permit requires preparation and implementation of a SWPPP, as discussed in Section 3.9, "Hydrology and Water Quality." SWPPPs would be required to identify temporary BMPs to prevent the transport of earthen materials from construction sites during periods of precipitation or runoff, and temporary BMPs would be required to prevent wind erosion of earthen materials.

In addition, all construction from implementation of the Project would be required to comply with City Municipal Code Chapter 16.44, which requires submission of a grading plan that describes:

- ▶ the location of on-site and surrounding watercourses and wetlands, existing and proposed drainage systems, and drainage area boundaries and acreages;
- ▶ accurate contours at 2-foot intervals for slopes up to 10 percent;
- ▶ elevations, location, extent, and slope of all proposed grading and location of any disposal areas, fills, or other special features;
- ▶ description and volumes of exaction and fill work;
- ▶ delineation of the area to be cleared and grubbed; and
- ▶ the location, implementation schedule, and maintenance schedule of all erosion control measures and sediment control measures to be implemented or constructed before, during, or after the proposed activity.

Municipal Code Section 16.44.250 requires that if activity is ceased at the site for any reason for a period of 15 days or more, the site must be graded to blend with adjacent terrain and be stabilized to prevent erosion or sediment deposition (sedimentation). Before issuance of the construction permit, the applicant must also provide a security deposit in an

amount estimated to be the cost of stabilizing the site if the project is abandoned. The City permit conditions provide verification of compliance with the SWRCB NPDES permit conditions and an additional layer of oversight to ensure that the project would not result in excessive erosion or sedimentation. These requirements would also be applied to potential emergency access improvements that may occur from implementation of the Safety Element Update.

Although future construction activities from implementation of the Project would create ground disturbance, the potential for increased erosion would be addressed through compliance with the City and SWRCB erosion control requirements and permit conditions. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Thus, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with City Municipal Code Chapter 16.44 and the requirements of NPDES Permit Number CA0082597.

Impact 3.6-2: Locate Project Facilities on Expansive or Unstable Soils, Creating Substantial Risks to Life or Property

General Plan EIR Impact 5.6.3 determined that potential impacts from unstable soils on future development activities would be mitigated to a less-than-significant level through compliance with the CBC that is implemented by Chapter 16.04 of the Municipal Code through special design and construction methods. Implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe soil stability impacts that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Expansive soils have high shrink/swell properties and expand when wet and shrink when dry. These soils have high clay content and can cause structural damage to foundations and roads that do not have proper structural engineering and are generally less suitable or desirable for development than non-expansive soils. Soil properties vary throughout the City of Elk Grove and should be evaluated to determine shrink/swell potential. The San Joaquin soil group, the main soil series in the City, has potential for expansion because of its high proportion of clay, especially at depths of 16 inches or greater. These soil erosion impacts from construction activities were identified in Impact 5.6.3 of the General Plan EIR.

Land subsidence is the gradual settling or sinking of an area with little horizontal motion. Although the closest areas of reported land subsidence are located west of Sacramento, the City of Elk Grove is located over a principal groundwater basin in a potential subsidence area, making groundwater pumping the City's largest potential cause for subsidence. The soils underlying the City are relatively dense/stiff and the upper 50 feet of soil are above the depth of groundwater; therefore, the potential for liquefaction in Elk Grove is considered low, as is the potential for ground lurching, differential settlement, or lateral spreading.

Implementation of the Housing Element and Safety Element Update would include the construction of residential structures to accommodate population growth and potential emergency access improvements within the Elk Grove area. Construction activities over expansive or unstable soils could result in substantial damage to structures and increased risk to site users. As noted above, the City has adopted the 2019 Edition of the CBC, Title 24, Part 2, Volumes 1 and 2 (City of Elk Grove Municipal Code Section 16.04.010). Pursuant to the CBC, future housing projects or projects involving emergency access improvements would be required to prepare geotechnical reports for the site. Based on conditions at the site, the geotechnical study would identify appropriate construction and structural design methods to reduce the potential for damage from unstable soil conditions that would be incorporated in the subsequent project design.

Compliance with the CBC and State and local policies and regulations would ensure appropriate design and proper foundation and excavation to minimize impacts related to expansive or unstable soils. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with Municipal Code Chapter 16.04 which implements the CBC.

Impact 3.6-3: Loss of a Unique Paleontological Resource or Geologic Feature

General Plan EIR Impact 5.6.5 identified that implementation of the General Plan could result in impacts to paleontological resources and identified that implementation of Mitigation Measure 5.6.5 would reduce this impact to a less-than-significant level. All projects within the City would be subject to adopted General Plan Mitigation Measure 5.6.5. Grading and excavation activities resulting from implementation of the Housing Element and Safety Element Update would be required to comply with this mitigation measure and would not result in a new or substantially more severe impact to paleontological resources that what was addressed in the General Plan EIR. With implementation of adopted General Plan Mitigation Measure 5.6.5, the project would result in a **less-than-significant** impact to paleontological resources.

Earthmoving activities could occur in formation that are sensitive for paleontological resources. The City is located within the Riverbank and Laguna formations. The Laguna Formation is known to produce Pliocene fossils; as a result, this formation has a high sensitivity rating. The Riverbank Formation is Pleistocene in age; Pleistocene-age alluvial deposits are sedimentary in nature; sedimentary alluvial deposits frequently contain fossils. Because numerous vertebrate fossils have been recovered from the Riverbank Formation in northern and central California, including localities that are close to the City, this formation is considered to be paleontologically sensitive. This impact identified in Impact 5.6.5 of the General Plan EIR and the following mitigation measure was adopted to mitigate the impact to a less-than-significant level.

Adopted Mitigation Measure 5.6.5

Before the start of any earthmoving activities, the project owner shall retain a qualified scientist (e.g., geologist, biologist, paleontologist) to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. Training on paleontological resources shall also be provided to all other construction workers but may use videotape of the initial training and/or written materials rather than in-person training.

If any paleontological resources (fossils) are discovered during grading or construction activities within the project area, work shall be halted immediately within 50 feet of the discovery, and the City Planning Division shall be immediately notified. The project owner will retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate Paleontology guidelines (SVP 2010). The recovery plan may include but is not limited to a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the City to be necessary and feasible will be implemented by the applicant before construction activities resume in the area where the paleontological resources were discovered.

Excavation and grading activities associated with implementation of the Housing Element and Safety Element Update would be subject to adopted General Plan Mitigation Measure 5.6.5, which would reduce or avoid potential impacts to paleontological resources. This mitigation measure would be implemented through subsequent housing application submittals to the City for design review or projects involving emergency access improvements that include training and requirements on project improvement plans for the protection of discovered resources. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. With implementation of adopted General Plan Mitigation Measure 5.6.5, the Housing Element and Safety Element Update would result in a **less-than-significant** impact to paleontological resources.

Mitigation Measures

No new mitigation is required beyond implementation of adopted General Plan EIR Mitigation Measure 5.6.5.

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3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section presents a summary of the current state of climate change science and greenhouse gas (GHG) emissions sources in California; a summary of applicable regulations; quantification of GHG emissions generated by the Project; and discussion of the Project's potential contribution to global climate change. Where impacts are found to be potentially significant, mitigation is recommended. The primary source of information used for this analysis is Section 5.7, "Greenhouse Gas Emissions and Energy," from the City of Elk Grove General Plan Update Draft Environmental Impact Report (General Plan EIR) (City of Elk Grove 2018). Notably, the aforementioned section evaluated potential adverse energy impacts. Energy impacts are evaluated in Section 3.5, "Energy," of this Draft SEIR.

For the purposes of this analysis, GHG emissions are measured as metric tons of carbon dioxide equivalent (MTCO_{2e}). The atmospheric impact of a GHG is based on the global warming potential (GWP) of that gas. GWP is a measure of the heat trapping ability of one unit of a gas over a certain timeframe relative to one unit of carbon dioxide (CO₂). The GWP of CO₂ is one (IPCC 2014). Consistent with the methodology used by the California Air Resources Board (CARB) in estimating statewide GHG emissions, this analysis uses GWP values from the Fourth Assessment Report Values by the Intergovernmental Panel on Climate Change (IPCC) (Greenhouse Gas Protocol No Date).

No comments pertaining to GHGs and climate change were received in response to the notice of preparation (NOP).

3.7.1 Regulatory Setting

FEDERAL

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States ruled that CO₂ is an air pollutant as defined under the federal Clean Air Act (CAA) and that the U.S. Environmental Protection Agency (EPA) has the authority to regulate GHG emissions. In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the CAA.

However, on April 2, 2018, the EPA administrator announced a final determination that the current standards should be revised. On August 2, 2018, the U.S. Department of Transportation and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule), which would amend existing CAFE standards for passenger cars and light-duty trucks by increasing the stringency of the standards by 1.5 percent per year from models 2021 through 2026 (NHTSA 2020).

The CAA grants California the ability to enact and enforce more strict fuel economy standards through the acquisition of an EPA-issued waiver. Each time California adopts a new vehicle emission standard, the state applies to EPA for a preemption waiver for those standards. However, Part One of the SAFE Rule, which became effective on November 26, 2019, revokes California's existing waiver to implement its own vehicle emission standard and also established a standard to be adopted and enforced nationwide (84 Federal Register [FR] 51310). At the time of preparing this SEIR, the implications of the SAFE Rule on California's future emissions are contingent upon a variety of unknown factors, including legal challenges by California and other states to the revocation of California's waiver, direction provided by federal leadership, and future cabinet and bureaucratic appointments. However, the impact analysis included in this chapter assumes that the SAFE Rule would continue to be implemented, and uses emissions factors developed by CARB that account for the potential for a less fuel-efficient future vehicle fleet as a result of the SAFE Rule (CARB 2019a).

In June 2019, EPA, under the authority of the CAA section 111(d), issued the Affordable Clean Energy rule which provides guidance to states on establishing emissions performance standards for coal-fired electric generating units (EGUs). Under this rule, states are required to submit plans to EPA which demonstrate the use of specifically listed retrofit technologies and operating practices to achieve CO₂ emission reductions through heat rate improvement (HRI). HRI is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emission reductions for CO₂ generated from coal-fired EGUs (EPA 2019a).

STATE

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the State government for approximately two decades. GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the U.S. to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015).

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and “substantially advance toward our 2050 climate goals” (CARB 2017). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). CARB and other state agencies also released the *January 2019 Draft California 2030 Natural and Working Lands Climate Change Implementation Plan* consistent with the carbon neutrality goal of Executive Order B-55-18 (California Environmental Protection Agency et al. 2019).

The State has also passed more detailed legislation addressing GHG emissions associated with transportation, electricity generation, and energy consumption, as summarized below.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel-powered on-road vehicles than EPA. In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles (EVs) to account for up to 15 percent of California's new vehicle sales by 2025 (CARB 2018a). When the rules are fully implemented by 2025, GHG emissions from the statewide fleet of new cars and light-duty trucks will be reduced by 34 percent and cars will emit 75 percent less smog-forming pollution than the statewide fleet in 2016 (CARB 2016a).

Executive Order B-48-18, signed into law in January 2018, requires all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as 200 hydrogen-fueling stations and 250,000 EV-charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

The CCA requires that a waiver be provided by EPA for states to enact more stringent emissions standards for new cars, which was granted to CARB by EPA on June 14, 2011; however, in addition to the SAFE Rule, but as a separate action, on September 19, 2019, EPA issued a final action entitled the “One National Program Rule” which would institute a nationwide, uniform fuel economy and GHG standard for all automobiles and light-duty trucks (EPA 2019b). The action would include the revocation of California's waiver under the CCA which would affect the enforceability of CARB's ZEV programs. While EPA has issued an action to revoke the waiver, the outcome of any related lawsuits and how such lawsuits could delay or affect the SAFE Rule implementation or CARB's ZEV programs is unknown at this time.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity (CI) of California's transportation fuels. Low-CI fuels emit less CO₂ than other fossil fuel-based fuels such as gasoline and fossil diesel. The LCFS applies to fuels used by on-road motor vehicles and off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

In addition to regulations that address tailpipe emissions and transportation fuels, the State legislature has passed regulations to address the amount of driving by on-road vehicles. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations (MPOs) to develop and adopt sustainable communities strategies (SCSs) as a component of the federally-prepared regional transportation plans (RTPs) to show reductions in GHG emissions from

passenger cars and light-duty trucks in their respective regions for 2020 and 2035. These plans link land use and housing allocation to transportation planning and related mobile-source emissions. The Sacramento Area Council of Governments (SACOG) serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo counties, excluding those lands located in the Tahoe Basin. The Project site is in Sacramento County. Under SB 375, SACOG adopted a Metropolitan Transportation Plan/Sustainable Communities Strategy 2035 (MTP/SCS) in 2016. SACOG was tasked by CARB to achieve a 7-percent per capita reduction compared to 2012 emissions by 2020 and a 16-percent per capita reduction by 2035, both of which CARB confirmed the region would achieve by implementing the MTP/SCS (CARB 2016b). In March 2018, CARB promulgated revised targets tasking SACOG to achieve a 7-percent and a 19-percent per capita reduction by 2020 and 2035, respectively (CARB 2018b). SACOG completed and adopted its most recent 2020 MTP/SCS in November 2019 (SACOG 2019).

SB 743 of 2013 required that OPR propose changes to the State CEQA Guidelines to address transportation impacts in transit priority areas and other areas of the State. In response, Section 15064.3 was added to CEQA in December 2018, requiring that transportation impacts no longer consider congestion but instead focus on the impacts of vehicle miles traveled (VMT). More detail about SB 743 is provided in the “Regulatory Setting” section of Section 3.13., “Transportation., of this Draft SEIR.

Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Code of Regulations Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every three years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. CEC estimates that the combination of required energy-efficiency features and mandatory solar panels in the 2019 California Energy Code will result in new residential buildings that use 53 percent less energy than those designed to meet the 2016 California Energy Code. CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficacy lighting (CEC 2018).

LOCAL

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary agency responsible for addressing air quality concerns in all of Sacramento County—its role is discussed further in Section 3.2, “Air Quality,” of this Draft SEIR. SMAQMD also recommends methods for analyzing project-generated GHGs in CEQA analyses and offers multiple potential GHG reduction measures for land use development projects. SMAQMD developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA (SMAQMD 2020a). SMAQMD’s goals in developing GHG thresholds include ease of implementation; use of standard analysis tools; and emissions mitigation consistent with the statewide GHG targets mandated by AB 32 of 2006. However, since the establishment of new statewide GHG target of 40 percent below 1990 levels by 2030 with passage of SB 32 in 2016, SMAQMD has not developed new thresholds that align with this statewide GHG target. SMAQMD provides guidance for program-level analysis of general plans and area plans. The Project would meet the criteria of a General Plan Element Update and therefore, SMAQMD’s guidance will be used in this analysis (SMAQMD 2020b).

City of Elk Grove General Plan

The City of Elk Grove General Plan contains the following policies and standards related to climate change that apply to the Project (City of Elk Grove 2019a):

- ▶ **Policy NR-5-2:** Improve the health and sustainability of the community through improved regional air quality and reduction of greenhouse gas emissions that contribute to climate change.
- ▶ **Policy NR-6-1:** Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources.
- ▶ **Policy NR-6-3:** Promote innovation in energy efficiency.
- ▶ **Policy NR-6-5:** Promote energy conservation measures in new development to reduce on-site emissions and seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.
- ▶ **Policy NR-6-6:** Encourage renewable energy options that are affordable and benefit all community members.
- ▶ **Policy NR-6-7:** Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy.
- ▶ **Policy H-2-3:** Support energy-conserving programs in the production and rehabilitation of affordable housing to reduce household energy costs, improve air quality, and mitigate potential impacts of climate change in the region.
- ▶ **Policy ER-6-11:** Seek to provide the community with information relating to sustainability, climate change, and innovative development strategies.

City of Elk Grove Climate Action Plan

The City Climate Action Plan 2019 Update (CAP), adopted in February 2019 and amended in December 2019 by the City, was incorporated into the current General Plan (discussed above). The CAP includes GHG emission reduction targets, strategies, and implementation measures developed to help the City reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space. Through the deployment of measures included in the CAP, as well as reductions achieved by Statewide regulatory schemes, consistent with direction from SB 32, the City would achieve a per capita emissions target of 4.1 MTCO₂e per year by 2030; however, based on projection within the CAP, the City would be expected to reduce per capita emissions to 3.0 MTCO₂e per year by 2050, which exceeds the State's 2050 reduction target of 1.4 MTCO₂e per year (City of Elk Grove 2019b:4-3). As discussed in the CAP, "additional technological advances across multiple sectors would be required to reduce emission further, combined with additional regulatory actions at the State or federal levels." Further, the City "would identify new or modified GHG reduction measures that would achieve longer-term, post-2030 targets that may be set by the State or others in the future" (City of Elk Grove 2018:5.7-37). The following GHG reduction action would apply to new residential development under the Project:

- ▶ **BE-1. Building Stock: Promote Energy Conservation.** Promote energy conservation by residents and businesses in existing structures in close coordination with other agencies and local energy providers, including the Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric (PG&E).
- ▶ **BE-4. Building Stock: Encourage or Require Green Building Practices in New Construction.** Encourage new construction projects to comply with CALGreen Tier 1 standards, including a 15 percent improvement over minimum Title 24 Part 6 Building Energy Efficiency Standards. For projects that the City determines are not exempt from CEQA (i.e., an environmental document is required) and that qualify for project-level GHG analysis streamlining under CEQA Guidelines Section 15183.5, compliance with CALGreen Tier 1 may be required as a mitigation measure, unless other measures are determined by the City to achieve equivalent GHG reductions such that the CAP remains on track to achieving the overall GHG reduction target.

- ▶ **BE-5. Building Stock: Phase in Zero Net Energy Standards in New Construction.** Phase in zero net energy (ZNE) standards for new construction, beginning in 2020 for residential projects and 2030 for commercial projects. Specific phase-in requirements and ZNE compliance standards will be supported by updates in the triennial building code updates, beginning with the 2019 update.
- ▶ **BE-6. Building Stock: Electrification in New and Existing Residential Development.** Encourage and incentivize new residential developments to include all-electrical appliances and HVAC systems in the design of new projects. Support local utilities in implementing residential retrofit programs to help homeowners convert to all electrical appliances and HVAC systems. Explore the feasibility of phasing in minimum standards for all-electric developments. For certain projects that the City determines are not exempt from CEQA (i.e., an environmental document is required) and that qualify for project-level GHG analysis streamlining under CEQA Guidelines Section 15183.5, compliance with this measure may be required as a mitigation measure, unless other measures are determined by the City to achieve equivalent GHG reductions such that the CAP remains on track to achieving the overall GHG reduction target.
- ▶ **BE-7. Building Stock: Solar Photovoltaics in New and Existing Residential and Commercial Development.** Encourage and require installation of on-site solar photovoltaic (PV) in new single-family and low-rise multi-family developments. Promote installation of on-site PV systems in existing residential and commercial development.
- ▶ **BE-8. SMUD Greenergy and SolarShares Programs.** Encourage participation in SMUD's offsite renewable energy programs (i.e., Greenergy, SolarShares), which allow building renters and owners to opt into cleaner electricity sources.
- ▶ **ACM-5. Affordable Housing.** Continue to promote and require the development of affordable housing in the City.

3.7.2 Environmental Setting

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remain stored in the atmosphere (IPCC 2013).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is considered to be enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

As discussed previously, GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2017 was 424 MMTCO₂e (CARB 2019b). This is less than the 2020 target of 431 MMTCO₂e (CARB 2019b).

A GHG inventory for the City is provided in the City's CAP and summarized in Table 3.7-2. As shown below, on-road vehicles and residential, commercial, and industrial energy consumption constitute the greatest sources of emissions.

Table 3.7-2 City of Elk Grove's Greenhouse Gas Emissions Inventory for 2013 and Business-as-Usual Forecast Years (MTCO₂e)

Emissions Sector	2013	2020	2030	2050
On-Road Vehicles	730,340	645,542	844,317	1,241,867
Residential Energy	231,400	257,171	310,017	413,560
Commercial/Industrial Energy	129,860	147,685	196,037	293,532
Off-Road Vehicles	93,340	102,776	123,896	165,275
Solid Waste	26,260	36,181	39,817	47,781
Wastewater	3,854	4,283	5,163	6,888
Water-Related	2,708	3,010	3,628	4,840
Agriculture	1,030	2,585	1,061	299
Total	918,790	1,199,232	1,523,936	2,174,042

Notes: Totals may not equal the sum of the numbers because of independent rounding.

MTCO₂e = metric tons of carbon dioxide equivalent.

Source: City of Elk Grove 2019b:Appendix A

As shown in Table 3.7-1, the transportation and building sectors are the largest GHG emission sectors in the City.

Emissions of CO₂ are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, landfills, and forest fires. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water) and are two of the most common processes for removing CO₂ from the atmosphere.

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to IPCC, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 3.7 to 4.8 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014:10). According to *California's Fourth Climate Change Assessment*, with global GHGs reduced at a moderate rate California will experience average daily high temperatures that are warmer than the historic average by 2.5 °F from 2006 to 2039, by 4.4 °F from 2040 to 2069, and by 5.6 °F from 2070 to 2100; and if GHG emissions continue at current rates then California will experience average daily high temperatures that are warmer than the historic average by 2.7 °F from 2006 to 2039, by 5.8 °F from 2040 to 2069, and by 8.8 °F from 2070 to 2100 (OPR et al. 2018).

Since its previous climate change assessment in 2012, California has experienced several of the most extreme natural events in its recorded history: a severe drought from 2012–2016, an almost non-existent Sierra Nevada winter snowpack in 2014–2015, increasingly large and severe wildfires, and back-to-back years of the warmest average temperatures (OPR et al. 2018). According to California Natural Resource Agency's *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2018). According to the National Oceanic and Atmospheric Administration and the National Aeronautics and Space Administration, 2016, 2017, and 2018 were the hottest recorded years in history (NOAA 2019). In contrast, the northern Sierra Nevada experienced one of its wettest years on record during the 2016–2017 water year (CNRA 2018). The changes in precipitation exacerbate wildfires throughout California through a cycle of high vegetative growth coupled with dry, hot periods which lowers the moisture content of fuel loads. As a result, the frequency, size, and devastation of forest fires has increased. In November 2018, the Camp Fire completely destroyed the town of Paradise in Butte County and caused 85 fatalities, becoming the state's deadliest fire in recorded history, and the largest fires in the state's history have occurred in the 2018–2020 period. Moreover, changes in the intensity of precipitation events following wildfires can also result in devastating landslides. In January 2018, following the Thomas Fire, 0.5 inch of rain fell in 5 minutes in Santa Barbara causing destructive mudslides formed from the debris and loose soil left behind by the fire. These mudslides resulted in 21 deaths.

As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet and the glaciers atop Greenland, the sea level along California's coastline is expected to rise 54 inches by 2100 if GHG emissions continue at current rates (OPR et al. 2018).

Temperature increases and changes to historical precipitation patterns will likely affect ecological productivity and stability. Existing habitats may migrate from climatic changes where possible, and those habitats and species that lack the ability to retreat will be severely threatened. Altered climate conditions will also facilitate the movement of invasive species to new habitats thus outcompeting native species. Altered climatic conditions dramatically endanger the survival of arthropods (e.g., insects, spiders) which could have cascading effects throughout ecosystems (Lister and Garcia 2018). Conversely, a warming climate may support the populations of other insects such as ticks and mosquitos, which transmit diseases harmful to human health such as the Zika virus, West Nile virus, and Lyme disease (European Commission Joint Research Centre 2018).

Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure, crop production, forests and rangelands, and public health (CNRA 2018; OPR et al. 2018). The effects of climate change will also have an indirect adverse impact on the economy as more severe natural disasters cause expensive, physical damage to communities and the state.

Additionally, adjusting to the physical changes associated with climate change can produce mental health impacts such as depression and anxiety.

3.7.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following impact analysis is based primarily on review of the information and analysis presented in the General Plan EIR then compared to Project-related modeling performed for this analysis. Where the General Plan EIR concluded that there would be no impacts or impacts would be less than significant, impacts are not evaluated in detail herein.

The analysis in this section is consistent with the recommendations of the SMAQMD's Guide to Air Quality Assessment in Sacramento County, Chapter 9, Program-Level Analysis of General Plans and Area Plans (SMAQMD 2020b). The analysis primarily focuses on the extent to which the Project would conflict with a plan for reduction of

GHG emissions as defined by CEQA Guidelines Section 15183.5. Both short-term construction emissions and long-term operational emissions were calculated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2, computer program.

SMAQMD recommends that construction emissions be estimated for program levels of analysis consistent with guidance provided for project-level analyses. As indicated in Chapter 2, "Project Description," the proposed Housing Element Update identifies a range of housing sites that would meet the RHNA for the City. Regional projections by SACOG estimate a need for an additional 8,263 housing units in Elk Grove by 2029. There is uncertainty surrounding the schedule and exact location of where development will occur, therefore, construction emissions were modeled using the assumptions that development would occur gradually over the 8-year period of the Housing Element Update (2021–2029). The acreages and the potential housing units under the proposed Housing Element Update were used. Due to the programmatic nature of this analysis, CalEEMod default values for trip generation, heavy-duty equipment type, and construction phasing were used. Total construction emissions were then amortized over a 40-year lifetime of the Project, which is a methodology supported by the SMAQMD for residential land uses (SMAQMD 2020a).

With respect to operational emissions, mobile source emissions were estimated using Project-estimated annual VMT derived from the traffic study prepared for the Project (see Section 3.13, "Transportation"). Energy-, area-, solid waste-, and water-sourced emissions were estimated using CalEEMod default values; however, energy-related estimates were adjusted to demonstrate consistency with the 2019 California Energy Code. These emissions are disclosed for informational purposes.

The City updated its CAP concurrently with the General Plan in 2019. The CAP update is intended to carry out the 2019 General Plan goals and policies to reduce GHG emissions and address the impacts of climate change. The City's GHG emissions inventory and forecasts have been updated to reflect new activity data and both current and projected population, housing, and employment demographic information consistent with the General Plan. The CAP update includes new GHG emissions reduction targets of 7.6 MTCO₂e per capita by 2020, and 4.1 MTCO₂e per capita by 2030. These targets are consistent with guidance provided to local governments in the 2017 Scoping Plan on setting plan-level GHG reduction goals that are consistent with the state's efforts to achieve the 2030 target established by SB 32. Consistency with the 2019 CAP is evaluated in this analysis.

Detailed model assumptions and inputs for these calculations are presented in Appendix B.

THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently a cumulative issue because the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the Project's impact on climate change is addressed only as a cumulative impact.

The significance criteria used to evaluate project impacts on climate change under CEQA are based on Section 15064 of the CEQA statute and relevant portions of Appendix G of the State CEQA Guidelines, which recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Implementation of a project would result in a cumulatively considerable contribution to climate change if it would:

- ▶ generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- ▶ conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or performance-based standards" (Section 15064.4[a]). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the

project's incremental contribution to climate change" (Section 15064.4[c]). The CEQA Guidelines provide that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment (Section 15064.4[b]):

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

CEQA Guidelines Appendix G is a sample Initial Study checklist that includes a number of factual inquiries related to the subject of climate change, as it does on a whole series of additional environmental topics. Notably, lead agencies are under no obligation to use these inquiries in fashioning thresholds of significance on these subjects, or indeed on any subject addressed in the checklist. (*Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059, 1068.) Rather, with few exceptions, "CEQA grants agencies discretion to develop their own thresholds of significance." (*Ibid.*) Even so, it is a common practice for lead agencies to take the language from the inquiries set forth in Appendix G and to use that language in fashioning thresholds. The City has done so here.

Since California's legislative mandate to reduce total projected GHG emissions to 1990 levels by the year 2020 has been achieved, the focus is now on reducing emissions 40 percent below 1990 levels by the year 2030. SB 32 codified the mandate to reduce emissions by 40 percent below 1990 levels by 2030. To achieve this target, future development must be planned and implemented in the most GHG-efficient manner possible. GHG-efficient development reduces VMT by supporting compact, dense, mixed-use, pedestrian and bicycle-friendly, transit-oriented development. Development that reduces VMT by shifting car trips to walking, biking and transit use also imparts numerous public health co-benefits, such as increases in rates of routine physical activity and corresponding reductions in rates of obesity, diabetes, hypertension, and other chronic conditions; fewer injuries and deaths from traffic collisions; and more direct visual surveillance of the urban environment, which leads to reduced rates of crime and violence. Local agencies are strongly encouraged to address GHG emissions when updating and/or adopting general and area plans. The general plan is perhaps the best venue for addressing GHG emissions in making meaningful progress toward attaining GHG reduction goals while addressing CEQA requirements.

As stated previously, the 2019 Elk Grove General Plan was prepared in conjunction with the City's 2019 CAP. The CAP is a qualified plan that has service metric targets for 2030 pursuant to the statewide reduction goals set forth by SB 32. 2030 is the projected first full year of operation of the housing proposed under the Project; therefore, to determine the potential significance of the Project, the Project will be evaluated for its consistency with the 2019 CAP. For the purposes of determining the significance of the Project, the Project would result in a cumulatively considerable contribution to climate change if it would:

- ▶ conflict with the GHG reduction measures contained in the 2019 CAP.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Project-Generated GHG Emissions

The General Plan EIR determined that GHG-related impacts would be less than significant through the incorporation of GHG reduction actions included in the General Plan and 2019 CAP (Impact 5.7.1) but would not likely meet long term reduction goals under Executive Order S-3-05 and result in a significant and unavoidable impact (Impact 5.7.2). Construction and operation of the existing and candidate housing sites under the Housing Element Update would generate an estimated 35,769 MTCO₂e/year in 2030, the assumed first full year of Project operation. Consistent with the findings of the General Plan EIR, new housing resulting from the implementation of the Housing Element Update would be subject to the policies contained in the 2019 CAP and 2019 General Plan, which would demonstrate consistency with statewide GHG reduction goals set forth by SB 32. Implementation of the Housing Element Update would introduce housing sites of greater density and development beyond what was included in the General Plan as analyzed in the General Plan EIR. The Project, as it includes as a component of the General Plan, would alter the rate that operational emissions would be generated. However, because the residential development under the Housing Element Update would be subject to applicable measures in the CAP, Project emissions would be reduced consistent with statewide GHG reduction goals by 2030. This impact would not result in a new or substantially more severe impact than what was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Construction-related activities associated with the Housing Element Update would generate GHG emissions from the use of heavy-duty off-road equipment, materials transport, and worker commute. Based on modeling conducted for the Project, the Project would generate an estimated total 36,677 MTCO₂e from construction activity. These emissions amortized over the life of the Project (i.e., 40 years) would be 917 MTCO₂e/year. Refer to Appendix B for detailed construction modeling inputs and parameters. Notably, the Safety Element Update could also generate emissions of GHGs from construction of new infrastructure to support evacuation and emergency access improvements and vehicles associated with police, fire, and emergency medical services; however, the acreage, intensity, duration, and location of these construction activities is unknown at this time and not accounted for in this analysis.

Operation of the Project would directly generate GHG emissions from vehicle movement to and from the project site, on-site natural gas consumption (e.g., stoves, fireplaces, water heaters), and use of landscaping equipment. GHGs would be indirectly emitted from electricity consumption, solid waste disposal at landfills, and water and wastewater treatment.

Table 3.7-2 summarizes the anticipated level of emissions for the Project by emissions sector. Refer to Appendix B for detailed input parameters and assumptions.

Table 3.7-2 Greenhouse Gas Emissions of the Housing Element Update Housing Sites in 2030

Emissions Sector	MTCO ₂ e
Mobile Source	24,327
Energy Consumption ¹	8,137
Solid Waste Generation	1,333
Water Consumption and Wastewater Treatment	956
Area Sources	99
Amortized Construction Emissions ²	917
Total Operational GHG Emissions	35,769

Notes: Totals may not add due to rounding.

MTCO₂e = metric tons of carbon dioxide equivalent, MTCO₂e/year/SP = metric tons of carbon dioxide equivalent per year per service population.

¹ Energy was estimated in accordance with the 2019 California Energy Code (Part 6 of the Title 24 California Building Code). The California Energy Code is updated triennially and expected to enhance the energy efficiency and decarbonization of future development. With a construction period of 8 years, it is expected that energy consumption would decrease as buildings become more energy efficient and feature minimal or no on-site natural gas use.

² Construction emissions were amortized over the life of the Project (assumed 40 years, which is the assumed Project lifetimes consistent with methodology used by SMAQMD).

See Appendix B for detailed input parameters and modeling results.

Source: Modeled by Ascent Environmental in 2020

As shown in Table 3.7-2, operation of the Project would generate approximately 36,684 MTCO₂e/year in 2030, the assumed first full year of Project operation. Notably, these levels of emissions account for existing and candidate housing sites. The General Plan EIR's GHG emissions inventory included operational emissions from the existing and candidate sites identified in the previous Housing Element. Implementation of the Project would introduce new operational emissions from additional housing to meet regional population growth; however, as explained in the City's CAP, the projected GHG inventories for 2030 and 2050 contained assumptions pertaining to regional population growth, new households, and driving behavior.

Consistent with the analysis performed in the General Plan EIR, the Project would be beholden to the GHG reduction actions outlined in the 2019 CAP, which would reduce construction and operational emissions. Measures BE-1, BE-4, BE-5, BE-6, BE-7, BE-8, and ACM-5 from the 2019 CAP would apply to housing constructed as part of implementation of the Housing Element Update. Notably, the 2019 CAP measures that target GHG reductions from City-owned municipal facilities and infrastructure and existing private development are not applicable to housing development but may be applicable for implementation of emergency access and evacuation routes under the Safety Element Update.

Additionally, Municipal Code Chapter 16.07 provides streamlined permitting for EV charging stations. Future development constructed and operated under the Housing Element Update that seeks to install EV charging stations would be entitled to use the streamlining mechanisms outlined in Municipal Code Chapter 16.07. Municipal Code Section 23.58.120 requires one "EV ready" parking space for all new one family and two family dwelling units. This section also requires that 2.5 percent of parking for multifamily projects provide EV charging and an additional 2.5 percent of parking be ready for future EV charging expansion. Compliance with these measures would be demonstrated in subsequent project building and site plan submittals for building permit approval and/or design review.

Although implementation of the Project would result in both direct and indirect GHG emissions, the 2019 CAP and associated General Plan policies would reduce emissions consistent with local GHG emissions reduction targets that were developed in consideration of the statewide 2030 reduction target established by SB 32 and the 2017 Scoping Plan. Unmitigated GHG emissions would increase under the Project due to the construction and operation of new housing; however, as stated previously, the CAP's future GHG forecast included new emissions from regional population growth, additional household, and changing in driving behaviors. The CAP measures were developed in consideration of this growth and adjusted accordingly to achieve the GHG reduction targets set forth by SB 32 and Executive Order S-3-05. As stated in the CAP, "[t]he City is also committed to updating the inventory, forecast, and reduction measures a minimum of once every five years. The City will use an implementation and monitoring tool to assist in tracking progress on CAP implementation and developing annual report for City Council presentations."

This commitment made by the City would ensure the efficacy of the CAP over time through identifying the GHG reduction actions that achieve the greatest reductions, removing or amending the existing GHG reduction actions that are not reducing emissions, and adding new GHG reduction actions in response to new technologies, practices, and feasibility. Additionally, future GHG inventories would account for new data pertaining to regional growth and housing needs, which is being met as an objective of the Project.

Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with Measures BE-1, BE-4, BE-5, BE-6, BE-7, BE-8, and ACM-5 from the 2019 CAP and Municipal Code Chapter 16.07 and Section 23.58.120.

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3.8 HAZARDS AND HAZARDOUS MATERIALS

This section addresses the potential presence of hazardous materials and conditions within the Project area and analyzes the potential risk of such materials in proximity to proposed development that could occur under implementation of the Housing Element and Safety Element Update (Project). This section discusses existing policies and regulations regarding hazards and hazardous materials, describes the existing conditions in the Project area, identifies hazardous materials that may affect public safety, and analyzes potential impacts. 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 2018a). Section 3.2, "Air Quality," evaluates potential impacts from toxic air contaminant emissions; Section 3.6, "Geology and Soils," evaluates geologic hazards; and Section 3.9, "Hydrology and Water Quality," evaluates potential flooding risks and hazards related to water quality.

No comments pertaining to hazards and hazardous materials were received in response to the notice of preparation (NOP).

3.8.1 Regulatory Setting

In California, the U.S. Environmental Protection Agency (EPA) has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, the Hazardous Materials Division of the Sacramento County Environmental Management Department (EMD) has been granted authority by the State to enforce most regulations pertaining to hazardous materials in the City.

FEDERAL

Management of Hazardous Materials

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, as well as requiring measures to prevent or mitigate injury to health or the environment if such materials are accidentally released. Applicable federal regulations pertaining to hazardous materials are primarily contained in Code of Federal Regulations (CFR) Titles 29, 40, and 49. Hazardous materials, as defined in the Code, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws.

- ▶ The Toxic Substances Control Act of 1976 (15 U.S. Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- ▶ The Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal ("cradle to grave").
- ▶ The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act or CERCLA) (42 USC 9601 et seq.) gives EPA authority to seek out parties responsible for releases of hazardous substances and ensure their cooperation in site remediation.
- ▶ The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499; USC Title 42, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.
- ▶ The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans. The SPCC rule is part of the Oil Pollution Prevention regulation, which also includes the Facility Response Plan rule.

Transport of Hazardous Materials

The U.S. Department of Transportation (US DOT) regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law, 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act 49 USC 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials transport regulations are enforced by the Federal Highway Administration, the U.S. Coast Guard, the Federal Railroad Administration, and the Federal Aviation Administration.

Worker Safety

The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9 USC 651 et seq.). OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials and those required for excavation and trenching.

STATE

Management of Hazardous Materials

In California, both federal and state community right-to-know laws are coordinated through the Governor's Office of Emergency Services. The federal law, SARA Title III or EPCRA, described above, encourages and supports emergency planning efforts at the State and local levels and to provide local governments and the public with information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- ▶ emergency planning,
- ▶ emergency release notification,
- ▶ reporting of hazardous chemical storage, and
- ▶ inventory of toxic chemical releases.

The corresponding State law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, qualifying businesses are required to prepare a Hazardous Materials Business Plan, which would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment. At such time as the applicant begins to use hazardous materials at levels that reach applicable State and/or federal thresholds, the plan is submitted to the administering agency.

The California Department of Toxic Substances Control (DTSC), a division of CalEPA, has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the State, known as the Cortese List. Individual regional water quality control boards (RWQCBs) are the lead agencies responsible for identifying, monitoring, and cleaning up leaking underground storage tanks (USTs). The Central Valley RWQCB has jurisdiction over Elk Grove.

CalEPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The six elements of the Unified Program are hazardous waste generation and on-site treatment, underground storage tanks, aboveground storage tanks, hazardous material release response plans and inventories, risk management and prevention programs, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency, referred to as the Certified Unified Program Agency (CUPA), which is responsible for consolidating the administration of the six program elements within its jurisdiction.

Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan

The State has adopted U.S. Department of Transportation regulations for the movement of hazardous materials originating within the state and passing through the state; state regulations are contained in 26 California Code of Regulations (CCR). State agencies with primary responsibility for enforcing state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the Governor's Office of Emergency Services, which coordinates the responses of other agencies in the project area.

Management of Construction Activities

Through the Porter-Cologne Water Quality Act and the National Pollution Discharge Elimination System (NPDES) program, RWQCBs have the authority to require proper management of hazardous materials during project construction. For a detailed description of the Porter-Cologne Water Quality Act, the NPDES program, and the role of the Central Valley RWQCB, see Section 3.9, "Hydrology and Water Quality."

The State Water Board adopted the statewide NPDES General Permit in August 1999. The state requires that projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management plans (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are typically more stringent than federal OSHA regulations and are presented in Title 8 of the CCR. Cal/OSHA conducts onsite evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

Title 8 of the CCR also includes regulations that provide for worker safety when blasting and explosives are utilized during construction activities. These regulations identify licensing, safety, storage, and transportation requirements related to the use of explosives in construction.

LOCAL

Sacramento County Environmental Management Department

Sacramento County EMD is responsible for promoting a safe and healthy environment in Sacramento County and enforcing hazardous waste laws and regulations at a local level. As the local CUPA, Sacramento County EMD oversees the proper use, storage, and cleanup of hazardous materials; monitoring wells; removal of leaky underground storage tanks; and permits for the collection, transport, use, or disposal of refuse. Sacramento County EMD's Hazardous Materials Business Plan, which is administered throughout Sacramento County and its incorporated cities, is an element of the County's CUPA program.

Sacramento County Evacuation Plan

The Sacramento County Evacuation Plan is developed as an annex to the Sacramento County 2008 All-Hazards Emergency Operations Plan. The purpose of this evacuation plan is to document the agreed-upon strategy for the county's response to emergencies that involve the evacuation of persons from an affected area to a safe area. This

involves coordination and support for the safe and effective evacuation of the general population and for those who need additional support to evacuate. Focus areas in this evacuation plan include public alert and warning, transportation, and care and shelter.

Primary evacuation routes are established for each of the seven Sacramento County sheriff districts. These include major interstates, highways, and prime arterials in Sacramento County. Local jurisdictions will work with the county, and especially the Operations Section, Law Enforcement Branch, and the Evacuation Movement Unit, to identify and update evacuation routes and evacuation transfer points. The primary evacuation routes usually will be major interstates and other highways, and major roadways within and out of the county, unless otherwise determined by the Sacramento County Department of Transportation. During an evacuation, Sacramento County Department of Transportation traffic engineers would be able to quickly calculate traffic flow capacity and decide which of the available traffic routes should be used to move people in the correct directions. In many cases, the traffic engineers will need to reevaluate and recalculate best traffic routes based on situational data.

Sacramento County Local Hazard Mitigation Plan

The City participates in the multijurisdictional Sacramento County Local Hazard Mitigation Plan (LHMP), last updated in 2016. The purpose of the plan is to guide hazard mitigation planning to better protect the people and property of the county from the effects of hazard events, such as flood, drought, earthquake, and severe weather. This plan also ensures that Sacramento County and participating jurisdictions, including the City, continue to be eligible for federal disaster assistance including the FEMA Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and the Flood Mitigation Assistance Program. The County LHMP provides policies and programs for participating jurisdictions to implement that reduce the risk of hazards and protect public health, safety, and welfare.

City of Elk Grove Emergency Operations Plan

The City's Emergency Operations Plan (EOP) provides a strategy for the City to coordinate and conduct emergency response (City of Elk Grove 2018b). The EOP establishes an Emergency Management Organization and assigns functions and tasks consistent with California's Standardized Emergency Management System and the National Incident Management System. The intent of the EOP is to provide direction on how to respond to an emergency from the initial onset, through an extended response, and into the recovery process. The EOP integrates and coordinates the planning efforts of multiple jurisdictions. This plan was reviewed and approved by representatives from each City department, local special districts with emergency services responsibilities in the City, and the Sacramento Operational Area Office of Emergency Services. The content is based upon guidance approved and provided by the State of California, FEMA, and the federal Department of Homeland Security.

City of Elk Grove General Plan

The City of Elk Grove General Plan (City of Elk Grove 2019) contains the following goals and policies that are applicable to the Project:

- ▶ **Policy ER-1-1:** In considering the potential impact of hazardous facilities on the public and/or adjacent or nearby properties, the City will consider the hazards posed by reasonably foreseeable events. Evaluation of such hazards will address the potential for events at facilities to create hazardous physical effects at offsite locations that could result in death, significant injury, or significant property damage. The potential hazardous physical effects of an event need not be considered if the occurrence of an event is not reasonably foreseeable as defined in Policy ER-1-2. Hazardous physical effects shall be determined in accordance with Policy ER-1-3.
- ▶ **Policy ER-1-2:** For the purpose of implementing Policy ER-1-1, the City considers an event to be "reasonably foreseeable" when the probability of the event occurring is as indicated in Table 8-1 [presented as Table 3.8-1 in this EIR].

Table 3.8-1 Acceptable Probability of Reasonably Foreseeable Risks to Individuals by Land Use

Land Use	Risk of Death Over 365 Days of Exposure
Agricultural, Light Industrial and Industrial: Uses involving continuous access and the presence of limited number of people but easy evacuation, e.g., open space, warehouses, manufacturing plants	Between 100 in one million and 10 in one million (10 ⁻⁴ to 10 ⁻⁵)
Commercial: Uses involving continuous access but easy evacuation, e.g., commercial uses, offices	Between 10 in one million and 1 in one million (10 ⁻⁵ to 10 ⁻⁶)
Residential: All other land uses without restriction including institutional uses, residential areas, etc.	1 in one million and less (10 ⁻⁶)

Source: City of Elk Grove 2019, Table 8-1.

- **Policy ER-1-3:** For the purpose of implementing Policy ER-1-1, use the Threshold of Exposure standards shown in Table 8-2 [presented as Table 3.8-2 in this EIR] to determine the potential “hazardous physical effect” from either: (a) Placing a use near an existing hazardous facility which could expose the new use to hazardous physical effects, or (b) Siting a hazardous facility that could expose other nearby uses to hazardous physical effects. Reasonably foreseeable level of risk standards may be considered by the City when supported by substantial evidence.

Table 3.8-2 Policy Threshold of Exposure Criteria for Agricultural, Residential, and Nonresidential Land Uses

Land Use	Maximum Policy Threshold of Exposure			
	Overpressure	Airborne Toxic Substances	Radiant Heat	Shrapnel
Agriculture	3.4 psig ^(a)	Dose = ERPG-2 ^(b) ppm for 60 min Exposure time = 60 min	Radiant dose = 200 kJ/m ² ^(c) Exposure time = 30 sec	All uses will be located such that the possibility of injury to an unprotected person due to shrapnel released by a reasonably foreseeable event ^(d) is less than 1/10 ⁻⁶ (1/1,000,000)
Residential (all density ranges) ^(e)	1.0 psig	For example: chlorine ERPG-2 = 3 ppm	Target radiant energy = radiant dose/exposure time	
Office/Commercial	1.0 psig	Dose = 3 ppm x 60 min = 180 ppm-min Target concentration = dose/exposure time Target concentration = (180 ppm-min) / 60 min Target concentration = 3 ppm chlorine	Target radiant energy = (200 kJ/m ²) / 30 sec Target radiant energy = 6.67 kW/m ²	
Light Industrial	1.25 psig	Dose = ERPG-2 ppm for 60 min Exposure time = 30 min For example: chlorine ERPG-2 = 3 ppm Dose = 3 ppm x 60 min = 180 ppm-min Target concentration = dose/exposure time Target concentration = (180 ppm-min) / 30 min Target concentration = 6 ppm chlorine	Radiant dose = 200 kJ/m ² Exposure time = 15 sec Target radiant energy = radiant dose/exposure time	
Industrial	3.4 psig	Dose = ERPG-2 ppm for 60 min Exposure time = 15 min For example: chlorine ERPG-2 = 3 ppm Dose = 3 ppm x 60 min = 180 ppm-min Target concentration = dose/exposure time Target concentration = (180 ppm-min) / 15 min Target concentration = 12 ppm chlorine	Target radiant energy = (200 kJ/m ²) / 15 sec Target radiant energy = 13.34 kW/m ²	

^a psig: pounds per square inch gauge

^b ERPG-2: Emergency Response Planning Guidelines. The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual's ability to take protective action; ppm: parts per million.

^c kJ/m²: kilojoules per square meter (a measure of radiant heat received); kW/m²: kilowatts per square meter; 1.0 kJ/m² = 1.0 kW/ m² for 1 sec = 1 kW/(m²-sec)

^d As defined in Policy ER-1-2.

^e Includes schools, parks, libraries, and other similar public gathering places regardless of their location

Source: City of Elk Grove 2019, Table 8-2.

- ▶ **Policy ER-1-4:** Work to identify and eliminate hazardous waste releases from both private companies and public agencies.
 - **Standard ER-1-4a:** Industries which store and process hazardous or toxic materials shall provide a buffer zone between the installation and the property boundaries sufficient to protect public safety, the adequacy of which will be determined by the City of Elk Grove
- ▶ **Policy ER-1-5:** Storage of hazardous materials and waste shall be strictly regulated, consistent with state and federal law.
 - **Standard ER-1-5a:** Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards.
 - **Standard ER-1-5.b:** Prior to site improvements for properties that are suspected or known to contain hazardous materials and sites that are listed on or identified on any hazardous material/waste database search shall require that the site and surrounding area be reviewed, tested, and remediated for potential hazardous materials in accordance with all local, state, and federal regulations.
- ▶ **Policy ER-1-7:** To the extent feasible, uses requiring substantial transport of hazardous materials should be located such that traffic is directed away from the City's residential and commercial areas.
- ▶ **Policy ER-1-8:** Support continued coordination with the California Office of Emergency Services, the California Department of Toxic Substances Control, the California Highway Patrol, the Sacramento County Department of Environmental Health Services, the Cosumnes Community Services District Fire Department, the Elk Grove Police Department, and other appropriate agencies in hazardous materials route planning and incident response.

Elk Grove Municipal Code Section 23.60.030 (Hazardous Materials)

The City has developed the following standards to ensure that the use, handling, storage, and transport of hazardous materials comply with all applicable State laws (Section 65850.2 of the Government Code and HSC Section 25505 et seq.) and that appropriate information is reported to the Fire Department as the regulatory authority:

- A. Reporting Requirements. All businesses required by State law (HSC Section 6.95) to prepare hazardous materials release response plans and hazardous materials inventory statements shall, upon request, submit copies of these plans, including any revisions, to the Fire Department.
- B. Underground Storage. Underground storage of hazardous materials shall comply with all applicable requirements of state law (HSC Section 6.7 and Articles 679 and 680 of the California Fire Code, or as subsequently amended). Businesses that use underground storage tanks shall comply with the following procedures:
 1. Notify the Fire Department of any unauthorized release of hazardous materials prescribed by City, county, state, and federal regulations;
 2. Notify the Fire Department and the Sacramento County Health Department of any proposed abandoning, closing, or ceasing operation of an underground storage tank and actions to be taken to dispose of any hazardous materials; and
 3. Submit copies of the closure plan to the Fire Department.

3.8.2 Environmental Setting

HAZARDOUS MATERIALS

For purposes of this section, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in the CFR as “a substance or material that ... is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

“Hazardous material” means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

“Hazardous wastes” are defined in California Health and Safety Code Section 25141(b) as wastes that:

... because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

FACILITIES THAT USE OR STORE HAZARDOUS MATERIALS

Businesses and services where hazardous materials are used or stored include fuel stations (underground fuel tanks) and automotive service businesses, dry cleaners, schools, medical and dental facilities, and laboratories, among others. Consumer products such as cleaning and maintenance supplies, paints, pesticides, and herbicides are also used and/or stored at retail stores, businesses, and residences. Industrial land uses often use, store, and/or generate hazardous waste. Industrial land activity types in Elk Grove include heavy industrial, light industrial, and warehousing. The bulk of industrial uses are in the southeast part of the City between State Route (SR) 99 and the Union Pacific Railroad (UPRR) line.

Suburban Propane Facility

The Suburban Propane facility located in the industrial area east of SR 99 and north of Grant Line Road handles large quantities of hazardous materials. The Suburban Propane facility is considered one of the largest aboveground propane storage facilities in the United States. The facility receives pressurized ambient temperature liquid propane from tank trucks and railcars and stores both ambient and refrigerated liquid propane. The propane is subsequently loaded onto trucks or railcars for off-site transport. The major components at the Suburban Propane facility include four 60,000-gallon pressurized, ambient temperature propane storage tanks; two 12,000,000-gallon refrigerated, low-pressure storage tanks; a propane refrigeration system; a flare; safety alarms; and tank truck and railcar loading and unloading stations. The facility is also equipped with water deluge systems, which are intended to help prevent tank trucks and railcars from failing due to excessive heat and internal pressure.

A risk evaluation was prepared in 2003 as part of the EIR prepared for the previous General Plan. *The Review of Suburban Propane Hazards Analysis Studies and Evaluation of Accident Probabilities Report* (Quest 2003, cited in City of Elk Grove 2018a) assessed how a release of propane, either by accident or by intentional act, could affect surrounding areas in the event of a failure of one or both refrigerated storage tanks. Under the flash fire scenario, the impact extent could be out to 1.5 miles, with an accidental incident probability of one chance in 2.8 million in a year, and an intentional act probability of one chance in 2.1 million in a year. For a vapor cloud explosion, the impact extent could be out to 0.75 miles, with an accidental incident probability of one chance in 104 million in a year, and an intentional act probability of one chance in 3.2 million in a year.

The potential for an accidental or intentional event resulting in either a vapor cloud or a flash fire is not substantial. Additionally, because the Suburban Propane facility is not operated by the City and the Project would not involve any changes to facility operations, the potential for a catastrophic event and its effects on surrounding land activity types would not be exacerbated by the Project and is, therefore, not subject to further analysis in this SEIR.

Hazardous Material Sites

The General Plan EIR noted that there are approximately 54 sites in the Planning Area that are listed on the Hazardous Waste and Substances Site List (Cortese List) compiled pursuant to Government Code Section 65962.5(a) (DTSC 2017 as cited in City of Elk Grove 2018a:5.8-2; SWRCB 2017 as cited in City of Elk Grove 2018a:5.8-2). These are sites where soil or groundwater contamination has resulted from the use and/or disposal of hazardous materials or wastes and include fuel stations; commercial and industrial facilities; schools; government buildings; and private property. Most of the listed sites are shown as completed case closed, certified closure, no action required, or no further action required. Sites are typically investigated in cases where there is known contamination or the potential for contamination requires investigation. Only sites that have been investigated and/or cleaned up under the oversight of the California Department of Toxic Substances Control (DTSC) or the State Water Resource Control Board (SWRCB) are on the Cortese List. The seven sites where some State oversight is still under way are ARCO #2123 (8500 Elk Grove Boulevard), Conoco Asphalt Terminal (10090 Waterman Boulevard), a Shell service station (9100 Harbour Point Drive), proposed Laguna Ridge East Elementary School (8551 Poppy Ridge Road), Obie's Dump (8437 Sheldon Road), a proposed charter school site (9185 Grant Line Road), and Proto-Tech Industries, Inc. (9181 CMD CT #A) (DTSC 2020; SWRCB 2020).

The number, status, and locations of contaminated sites are subject to change after publication of this EIR. It is possible that a new site or sites could be added to the Cortese list, while other sites that are currently open cases may be removed from the list by a regulatory agency. Sites indicated as open or active are in the process of being investigated and/or remediated. Sites listed as closed, inactive, or no further action may have been investigated and/or remediated, but may have residual contamination as allowed by the regulatory agencies. For example, the State allows for deed restrictions that specify land use prohibitions or limitations on sites where contaminants may still be present. For any site included on a State or local list, regardless of its status, or sites that may be added in the future, the City will require future project applicants to submit up-to-date information regarding the status of the site.

There could also be sites in the Planning Area that may be contaminated but have not yet been identified or investigated, particularly in developed areas where infill development may occur under the proposed Project. In addition, past land activity types may have resulted in contamination outside the Planning Area, typically associated with migration of contaminated groundwater.

Residual Agricultural Chemicals

Much of the remaining vacant land in the Planning Area has been or is currently used for agricultural purposes. Past use of agricultural chemicals such as pesticides can result in residual chemicals in the soil that can expose people to possible health risks. Certain types of agricultural chemicals used in past decades can persist in soils for years. Irrigated pasture, dry-farmed crops, and natural grasses typically require little to no applications of environmentally persistent pesticides, but cultivated irrigated row crops may have been subject to applications of restricted agricultural chemicals, which could be persistent. Orchards and orchard-cultivated soils may have been contaminated through the repeated application of agricultural chemicals to fruit or nut trees.

POTENTIALLY HAZARDOUS BUILDING MATERIALS

Existing structures in the Planning Area that could be renovated or demolished in conjunction with future development projects under the proposed Project may contain asbestos-containing materials in building components, lead-based paint, or polychlorinated biphenyls (PCBs) in electrical equipment.

Asbestos

Structures constructed or remodeled between 1930 and 1981 have the potential to contain asbestos-containing materials. These materials can include, but are not limited to, resilient floor coverings, drywall joint compounds, acoustic ceiling tiles, piping insulation, electrical insulation, and fireproofing materials.

Lead-Based Paint

Lead-based paints were phased out of production in the early 1970s. Exposure to lead from vintage paint is possible when the paint is in poor condition or during its removal. In construction settings, workers can be exposed to airborne lead during renovation, maintenance, or removal work.

Polychlorinated Biphenyls

In 1976, the United States Congress enacted the Toxic Substances Control Act (TSCA), which reviewed all industrial chemicals, including polychlorinated biphenyls (PCBs). Since the passage of the TSCA, the production and use of PCBs has been prohibited, limited, or phased out. Potential sources of PCBs in older buildings in the Planning Area include fluorescent light ballast and some electrical equipment such as elevators. However, according to a U.S. Environmental Protection Agency (EPA) database of federally registered PCB transformer data, the City is not listed as having PCB transformers in the Planning Area (City of Elk Grove 2018a:5.8-4).

TRANSPORTATION OF HAZARDOUS MATERIALS

Hazardous materials may be legally transported on area roadways, including SR 99 and I-5. The transportation of hazardous materials within and through the City is subject to various federal, State, and local regulations. The only roadway and transportation route approved for the transportation of explosives, poisonous inhalation hazards, and radioactive materials in the City is I-5. Smaller quantities of hazardous materials, such as medical supplies, pool chemicals, cleaning agents, paint, and household chemicals, may be transported on all roadways throughout the City. Hazardous materials may also be transported via rail along the UPRR, which passes through Elk Grove.

Since the City's incorporation in 2000, there have been 56 reported incidents involving the transport of hazardous materials. These incidents did not result in releases to the environment or human fatalities or injuries but rather damage to containers (crushed boxes or drums) in vehicles transporting them or while moving the items (e.g., with a forklift). There have been no rail incidents in the City (PHMSA 2020; NTSB 2020).

3.8.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following impact analysis is based primarily on review of the information and analysis presented in the General Plan EIR as well as available literature, including documents published by the City of Elk Grove, State and federal agencies, and published information dealing with hazards and hazardous materials in the Elk Grove area. The analysis of the impacts related to hazards and hazardous materials is qualitative and based on the possible housing sites proposed by the City and assumptions associated residential development. As discussed in the Regulatory Setting, the transport, use, storage, and disposal of hazardous materials are governed by a substantial body of existing regulations. These regulations are intended to reduce the potential for exposure by controlling the pathways by which persons could be exposed to hazardous substances. Compliance with these regulations is required, not optional. In determining the level of significance, the analysis assumes that the proposed Project would comply with all applicable laws, ordinances, and regulations, and this SEIR does not present mitigation measures that duplicate existing regulations or state that the City or future applicants must comply with.

THRESHOLDS OF SIGNIFICANCE

An impact related to hazards and hazardous materials is considered significant if implementation of the Project would do any of the following:

- ▶ create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- ▶ create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;
- ▶ emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- ▶ be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- ▶ for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- ▶ impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- ▶ expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

ISSUES NOT DISCUSSED FURTHER

Wildland Fire

Wildfire hazards were scoped out from analysis in the NOP because the City is not located in or near a Very High Fire Hazard Severity Zone. Therefore, there would not be a significant impact related to wildfire, and this issue will not be discussed further.

Airports

There are no active airports located within two miles of the Planning Area. The closest airports are Franklin Field, Sky Way Estates Airport, and Borges-Clarksburg Airport, which are each located approximately 3 miles from the Planning Area. Therefore, implementation of the Housing Element and Safety Element Update would not result in a safety hazard or excessive noise for people residing or working in the Planning Area, and this issue will not be discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.8-1: Risks to Human Health and the Environment Resulting from the Routine Use, Transport, Storage, and Disposal of Hazardous Materials or the Accidental Release of Hazardous Materials

General Plan EIR Impact 5.8.1 determined that potential impacts from the use, transport, storage, and disposal of hazardous materials would be reduced to a less-than-significant level through compliance with General Plan policies and applicable federal, State, and local policies and regulations. Implementation of the Housing Element and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe soil stability impacts that was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Implementation of the Project would not directly construct new housing in the City but would promote and facilitate development of new residential land uses, especially encouraging the provision of affordable housing and housing for special needs groups. However, implementation of the Housing Element and Safety Element Update would facilitate new residential construction in order to meet the City's RHNA allocation. Implementation of the Safety Element Update could result in future emergency access improvements in the City. Construction activities would use hazardous materials such as fuels (gasoline and diesel), oils and lubricants, paints and paint thinners, glues, cleaners (which could include solvents and corrosives in addition to soaps and detergents), and possibly pesticides and herbicides. Future residential land uses would not be expected to transport, use, store, or dispose of substantial amounts of hazardous materials. Impacts related to the routine use, transport, storage, and disposal were evaluated in Impact 5.8.1 of the General Plan EIR, which concluded that impacts would be less than significant.

The City of Elk Grove General Plan provides several policies designed to reduce the potential for the release of hazardous materials during their routine use, transport, storage, and disposal. Policy ER-1-1 requires the evaluation of hazards posed by reasonably foreseeable events, which are concurrently defined in Policy ER-1-2. This evaluation of hazards must address the potential for events at facilities to create hazardous physical effects at offsite locations that could result in death, significant injury, or significant property damage. Policy ER-1-3 provides the Threshold of Exposure standards which determine the potential hazardous physical effect from placing a new land use near an existing hazardous facility or placing a new hazardous facility near another existing land use. The exposure standards include overpressure, airborne toxic substances, radiant heat, and shrapnel. Policy ER-1-4 requires industries which store and process hazardous or toxic chemicals to provide a buffer zone sufficient to protect public safety. The adequacy of the buffer zone is to be determined by the City. Policy ER-1-5 requires the storage of hazardous materials and waste to be strictly regulated and consistent with State and federal law.

As discussed in Section 3.8.1, "Regulatory Setting," the use, storage, and transportation of hazardous materials is also regulated on the federal and State level. The General Plan policies listed above help support these regulations. Facilities that store or use certain types or quantities of hazardous materials are required to obtain permits and comply with appropriate regulatory standards designed to avoid hazardous material releases, as well as appropriate actions to take in the event of an accidental release. These regulations include, but are not limited to, the Hazardous Materials Business Plan requirements, Department of Transportation requirements, Occupational Safety and Health Act, and Toxic Substances Control Act. The California Accidental Release and Prevention Program (CCR Title 19, Division 2, Chapter 4.5) ensures that accidental release scenarios are considered, and measures are included to reduce the risk of accidental spills.

Construction activities from implementation of the Housing Element and Safety Element Update would use hazardous materials such as fuels (e.g., gasoline and diesel), oils and lubricants, paints and paint thinners, glues, cleaners, and possibly pesticides and herbicides. The use and handling of hazardous materials during construction activities would occur in accordance with applicable federal, State, and local laws. Once operational, housing sites developed are not expected to transport, use, store, or dispose of substantial amounts of hazardous materials, with the exception of common residential-grade hazardous materials such as household cleaners and paint, among others. Potential future emergency access improvements would also not involve the use hazardous materials.

The Project could result in an increase in hazardous materials used, stored, and transported in the City mostly during construction. However, risks to human health and the environment would be minimized through implementation of General Plan policies and other applicable federal, State, and local regulations. Individual development projects and emergency access improvement projects would be reviewed by City staff for consistency and conformance with applicable requirements as part of the approval process. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policies ER-1-1 through ER-1-4 and State regulations including CCR Title 19, Division 2, Chapter 4.5.

Impact 3.8-2: Locating Hazardous Materials Within One-Quarter Mile of an Existing or Proposed School

General Plan EIR Impact 5.8.3 evaluated the potential for hazards and hazardous emissions within one-quarter mile of existing or proposed schools and concluded that compliance with General Plan policies as well as applicable regulations would ensure that impacts would not be significant. The Project could result in additional residential development than evaluated in the General Plan EIR. Implementation of the Housing Element and Safety Element Update would be required to comply with regulations and General Plan policies and would not result in a new or substantially more severe impacts that was addressed in the General Plan EIR. This impact would be **less than significant**.

General Plan EIR Impact 5.8.3 evaluated the potential for hazardous emissions within one-quarter mile of existing or proposed schools. The analysis noted that there are several elementary schools, middle schools, and high schools as well as several private schools, preschools, and childcare facilities within the City. The analysis concluded that while the General Plan could result in activities that would involve the use of hazardous materials within one-quarter mile of a school, adherence to existing regulations and General Plan policies would ensure that impacts would be less than significant. Eighteen potential housing sites (Sites C-3, C-4, C-5, C-6, C-8, C-9, C-10, C-13, C-14, C-16, C-21, C-22, C-23, C-25, E-2, E-4, E-15, and E-18) are located within one-quarter mile of an existing or proposed school. Implementation of the Project could result in a net increase in the number of residential units in the City over what is planned for under the General Plan by up to 2,722 net new residential units depending on the final selection of housing sites for the Housing Element Update. Residential land uses do not typically involve the storage or usage of substantial quantities of hazardous materials, and thus, Project implementation would not result in a substantial increase of hazardous materials located near schools. Additionally, the General Plan includes several policies to protect the public from exposure to hazardous materials and waste, and all residential development would be required to comply with applicable federal, State, and local regulations and policies regarding hazardous materials and waste. For example, General Plan Policy ER-1-5 regulates the storage of hazardous materials and waste, and Policies ER-1-1, ER-1-2, and ER-1-3 provide regulations and thresholds for reasonably foreseeable risks to individuals in residential areas. The proposed revisions to the Safety Element include language regarding evacuation routes that could result in future emergency access improvements in the City but would not result in any activities that would locate hazardous materials within one-quarter mile of a school. There is no new significant effect, and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policies ER-1-1, ER-1-2, ER-1-3, and ER-1-5.

Impact 3.8-3: Development on Land Registered in a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5

General Plan EIR Impact 5.8.2 identified that implementation of the General Plan could result in impacts related to contaminated sites and identified that implementation of Mitigation Measure 5.8.2 would reduce this impact to a less-than-significant level. All projects within the City would be subject to adopted General Plan Mitigation Measure 5.8.2 and all applicable local, State, and federal regulations. Site development activities resulting from implementation of the Housing Element and Safety Element Update would be required to comply with this mitigation measure and would not result in a new or substantially more severe impact to contaminated sites than what was addressed in the General Plan EIR. With implementation of adopted General Plan Mitigation Measure 5.8.2, the project would result in a **less-than-significant** impact.

General Plan EIR Impact 5.8.2 evaluated the potential for construction on lands that may be contaminated. The analysis noted that while new sites may be added and some removed from the Cortese List, not all locations in the Planning Area where future development may occur have been evaluated for potential contamination. The following mitigation measure was adopted to mitigate the impact to a less-than-significant level.

Adopted Mitigation Measure 5.8.2

Prior to approval of improvement plans, grading permits, and or demolition permits for properties in the Planning Area that have not already been evaluated for the potential for the presence of hazardous materials and hazardous conditions, Phase I ESAs shall be prepared by a qualified professional. Each Phase I ESA shall assess the potential for hazards and provide recommendations whether additional investigation (Phase II ESA) should be completed. If determined necessary, a Phase II ESA shall be conducted to determine the lateral and vertical extent of soil, groundwater, and/or soil vapor contamination, as recommended by the Phase I ESA. The City shall not issue a grading or building permit for a site where contamination has been identified until remediation or effective site management controls appropriate for the site use have been completed consistent with applicable regulations and to the satisfaction of the Sacramento County Environmental Management Department, the California Department of Substances Control, and/or Central Valley Regional Water Quality Control Board, as appropriate. If the Phase I ESA determines there are no recognized environmental conditions, no further action is required. However, the City shall ensure any grading or improvement plan or building permit includes a statement that if hazardous materials contamination is discovered or suspected during construction activities, all work in the vicinity of the contamination shall stop immediately until a qualified professional has evaluated the site and determined an appropriate course of action.

Implementation of the Project does not, in and of itself, construct new housing in the City, but would promote and facilitate development of new residential land uses. Seven locations in the City are on the Cortese List and are listed as being open, active, or needing evaluation. The remaining sites within the City and its Planning Area have completed cleanup or require no further action. Table 3.8-3 lists these seven sites, site type, cleanup status, and location within the City.

Table 3.8-3 Hazardous Material Sites with Open, Active, or Need Evaluation Status

Site Name	Site Type	Cleanup Status	Address
Proposed Laguna Ridge East Elementary	School Evaluation	Active	8551 Poppy Ridge Road
Obie's Dump	Voluntary Cleanup	Inactive – Needs Evaluation	8437 Sheldon Road
Proposed Charter School Site	School Evaluation	Inactive – Needs Evaluation	9185 Grant Line Road
Proto-Tech Industries, Inc.	Tiered Permit	Inactive – Needs Evaluation	9181 CMD Court #A
ARCO #2123	LUST Cleanup Site	Open	8500 Elk Grove Boulevard
Conoco Asphalt Terminal	LUST Cleanup Site	Open	10090 Waterman Road
Shell Service Station	LUST Cleanup Site	Open	9100 Harbour Point Drive

Source: SWRCB 2020; DTSC 2020

Potential housing site C-6 is located on the same parcel as Obie's Dump, shown in Table 3.8-1 above.

Contaminated soil could be encountered during soil-disturbing activities such as excavation and trenching, which could pose a risk to construction workers through direct contact and inhalation of contaminated dust. Dust from contaminated soil could be dispersed beyond a construction site and adversely affect public health. If contaminated groundwater were encountered and disposed of improperly, this could pose a human health or environmental risk. Single-family homes, multifamily residences, and structures with subterranean features (e.g., parking garage) constructed on a site where hazardous materials contamination has not been remediated to acceptable risk levels could pose a risk to occupants through direct contact (e.g., soil disturbance) or inhalation (soil vapor). The proposed update to the Safety Element could result in future emergency access improvements in the City that may also encounter contamination during construction. .

Future projects associated with the Housing Element and Safety Element Update would be subject to adopted General Plan Mitigation Measure 5.8.2, which would reduce or avoid potential impacts related to contaminated sites by requiring preparation of a Phase I ESA if such a report has not already been prepared. Additionally, all future development would be required to comply with all applicable federal, State, and local policies and regulations, including policies regarding site assessment and remediation prior to any construction activity. This would ensure that

any hazardous materials on-site would be properly removed so that they would not pose a threat to human health or the environment. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond implementation of adopted General Plan EIR Mitigation Measure 5.8.2

Impact 3.8-4: Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan

The Project would not interfere with the Sacramento County LHMP or the City's EOP. Therefore, this impact would be **less than significant**.

General Plan EIR Impact 5.8.4 evaluated whether implementation of the General Plan would affect roadways and increase the number of people who may need to evacuate in the event of an emergency. The analysis noted that Elk Grove participates in the multijurisdictional Sacramento County LHMP, last updated in 2016 (Sacramento County 2016). The purpose of the plan is to guide hazard mitigation planning to better protect the people and property of the county from the effects of hazard events. The Sacramento LHMP includes policies and programs for participating jurisdictions to implement that reduce the risk of hazards and protect public health, safety, and welfare. The City's EOP provides a strategy for the City to coordinate and conduct emergency response. The intent of the EOP is to provide direction on how to respond to an emergency from the initial onset, through an extended response, and into the recovery process. The analysis concluded that ensure that compliance with local requirements to provide adequate emergency response would ensure that implementation of the General Plan would not result in significant impacts related to emergency response or evacuation plans.

The Housing Element and Safety Element Update would not propose any policies or programs that would conflict with the City's EOP or the County's LHMP. Future development facilitated by the Project would be located on existing parcels within the City and is not anticipated to encroach on or obstruct any existing evacuation routes. All new development would be required to comply with existing fire codes and ordinance regarding emergency access. Implementation of potential emergency access and evacuation improvements under the Safety Element Update would provide beneficial impacts.

There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, this impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with Sacramento County LHMP and the City's EOP.

3.9 HYDROLOGY AND WATER QUALITY

This section identifies the regulatory context and policies related to hydrology and water quality, describes the existing hydrologic conditions in Elk Grove, and evaluates potential hydrology and receiving water-quality impacts 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). Potential effects related to water-supply, sewer/wastewater, and drainage/stormwater facilities are addressed in Section 3.14, "Utilities and Service Systems."

In response to the notice of preparation (NOP), one commenter requested that the EIR include the groundwater sustainability plan when evaluating water availability. This SEIR section 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. For more information and analysis regarding the Project's water demand and whether any water is anticipated to come from groundwater, please see Section 3.14, "Utilities and Service Systems," of this Draft SEIR.

3.9.1 Regulatory Setting

FEDERAL

Clean Water Act

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA as well as the states. Various elements of the CWA address water quality. These are discussed below.

CWA Water Quality Criteria/Standards

Pursuant to federal law, EPA has published water quality regulations under Title 40 of the Code of Federal Regulations (CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the act, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of state regulations below, the State Water Resources Control Board (State Water Board) and its nine regional water quality control boards (RWQCBs) have designated authority in California to identify beneficial uses and adopt applicable water quality objectives.

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with water quality objectives. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. In California, implementation of TMDLs is achieved through water quality control plans, known as Basin Plans, of the State RWQCBs. See "State," section below.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint source stormwater

runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits.

“Nonpoint source” pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The RWQCBs in California are responsible for implementing the NPDES permit system (see the “State” section below).

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from, and mitigating against disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

As part of implementation of the National Flood Insurance Act (42 U.S.C. 4001 et seq.), FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of NFIP. Floodplains are divided into flood hazard areas, which are areas designated per their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas are the areas identified as having a one percent chance of flooding in each year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain if the development is expected to increase flood elevation by 1 foot or more.

STATE

Porter-Cologne Water Quality Control Act

California’s primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act) (Water Code Division 7, Water Quality). The Porter-Cologne Act grants the State Water Board and each of the nine RWQCBs power to protect water quality, and it is the primary vehicle for implementation of California’s responsibilities under the CWA. The applicable RWQCB for the Project is the Central Valley RWQCB. The State Water Board and the Central Valley RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface water and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a water quality control plan (known as a “Basin Plan”) for its region. The Basin Plan for the Central Valley Region includes a comprehensive list of water bodies within the region and detailed language about the components of applicable WQOs. The Basin Plan recognizes natural water quality, existing and potential beneficial uses, and water quality problems associated with human activities throughout the Sacramento and San Joaquin River Basins. Through the Basin Plan, the Central Valley RWQCB executes its regulatory authority to enforce the implementation of TMDLs and to ensure compliance with surface WQOs. The Basin Plan includes both narrative, and numerical WQOs designed to provide protection for all designated and potential beneficial uses in all its principal streams and tributaries. Applicable beneficial uses include municipal and domestic water supply; irrigation; noncontact and contact water recreation; groundwater recharge; fresh water replenishment; hydroelectric power generation; and preservation and enhancement of wildlife, fish, and other aquatic resources.

The Central Valley RWQCB also administers the adoption of waste discharge requirements, manages groundwater quality, and adopts projects within its boundaries under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit).

NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity

The State Water Board has adopted the Statewide NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). The State requires that projects disturbing more than 1 acre of land during construction file a Notice of Intent with the applicable RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Additionally, the Construction General NPDES Permit covers incidental removal of water from excavations during construction. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A storm water pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management practices (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

NPDES Stormwater Permit for Discharges from Small Municipal Separate Storm Sewer Systems

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Stormwater is runoff from rain or snowmelt that runs off surfaces, such as rooftops, paved streets, highways, or parking lots, and it can carry with it pollutants, such as oil, pesticides, herbicides, sediment, trash, bacteria, and metals. The runoff can then drain directly into a local stream, lake, or bay. Often, the runoff drains into storm drains, which eventually drain untreated stormwater into a local water body.

The City is an MS4 co-permittee with the cities of Citrus Heights, Folsom, Galt, Rancho Cordova, and Sacramento and the County of Sacramento. NPDES permit terms are 5 years. The current regionwide permit (Order No. R5-2016-0040), adopted by the Central Valley RWQCB in June 2016, allows each permittee to discharge urban runoff from MS4s in its respective municipal jurisdiction, and it requires Phase I MS4 permittees to enroll under the regionwide permit as their current individual permits expire. Regional MS4 permit activities are managed jointly by the Sacramento Stormwater Quality Partnership, which consists of the seven jurisdictions covered by the permit.

Under the permit, each permittee is also responsible for ensuring that stormwater quality management plans are developed and implemented that meet the discharge requirements of the permit. Under the 2016 permit, measures should be included in the stormwater quality management plan that demonstrate how new development would incorporate low-impact development (LID) design in projects. The new permit also includes requirements for addressing TMDLs. The City Department of Public Works is responsible for ensuring that its specific MS4 permit (Order No. R5-2016-0040-005) requirements are implemented. Compliance with the MS4 permit is regulated through Chapter 15.12 of the City Municipal Code.

California Water Code

The California Water Code is enforced by the California Department of Water Resources (DWR). The mission of DWR is "to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development Statewide.

Groundwater Management

Groundwater Management is outlined in the California Water Code, Division 6, Part 2.75, Chapters 1-5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as Assembly Bill (AB) 3030, and has since been modified by Senate Bill (SB) 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management Act (SGMA) (SB 1168, SB 1319, and AB 1739) in 2014. The intent of the Acts is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a Groundwater Management Plan.

The SGMA became law on January 1, 2015, and applies to all groundwater basins in the State (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the

technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

Pursuant to the SGMA, any local agency that has water supply, water management, or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). The Sacramento Central Groundwater Authority (SCGA) has notified DWR that it has elected to become a groundwater sustainability agency pursuant to Water Code Section 10723.8 and that it intends to undertake sustainable groundwater management in an area roughly coincident with the Sacramento Valley Groundwater Basin, South American Subbasin.

Central Valley Flood Protection Act

The Central Valley Flood Protection Act of 2008 (Government Code Sections 65007, 65302.9, 65860.1, 65865.5, 65962, and 66474.5; Health and Safety Code Section 50465; and Water Code Division 5) establishes the 200-year flood event as the minimum level of protection for urban and urbanizing areas. As part of the State's FloodSAFE program, those urban and urbanizing areas protected by flood control project levees must receive protection from the 200-year flood event level by 2025. DWR and the Central Valley Flood Protection Board (CVFPB) collaborated with local governments and planning agencies to prepare the 2012 *Central Valley Flood Protection Plan* (CVFPP) (DWR 2012), which CVFPB adopted on June 29, 2012. The objective of the 2012 CVFPP is to create a systemwide approach to flood management and protection improvements for the Central Valley and San Joaquin Valley. The Central Valley Flood Protection Act calls for updates to the CVFPP every 5 years. The first update of the CVFPP was adopted in August 2017, and the next update is scheduled for 2022. As required by the Central Valley Flood Protection Act, the City has mapped inundation areas for a 200-year flood.

State Plan of Flood Control

Section 9110(f) of the California Water Code defines the State Plan of Flood Control as follows:

"State Plan of Flood Control" means the state and federal flood control works, lands, programs, plans, policies, conditions, and mode of maintenance and operations of the Sacramento River Flood Control Project described in Section 8350, and of flood control projects in the Sacramento River and San Joaquin River watersheds authorized pursuant to Article 2 (commencing with Section 12648) of Chapter 2 of Part 6 of Division 6 for which the board or the department has provided the assurances of nonfederal cooperation to the United States, and those facilities identified in Section 8361.

The State Plan of Flood Control encompasses a wide network of facilities that range from major structures, such as levees, drainage pumping plants, drop structures, dams and reservoirs, and major channel improvements, to minor components, such as stream gauges, pipes, and bridges.

LOCAL

Sacramento County Storm Drainage Utility Zone 11A

Most of the City is within the boundaries of Zone 11A of the Sacramento County Storm Drainage Utility. The City participates in the regional trunk drainage development fee program, which is specific to Zone 11A. Under a development impact fee program administered by Sacramento County, development in Zone 11A pays a Beach Stone Lake volume mitigation fee held in a trust for a future project. The Sacramento County Department of Water Resources pays flood insurance premiums for many homes in this floodplain from interest earned on funds held in the account.

Sacramento County Water Agency Zone 40

The SCWA created Zone 40 through Resolution No. 663 in May 1985. The purpose of Zone 40 is the acquisition, construction, maintenance, and operation of facilities for the production, conservation, transmittal, distribution, and sale of groundwater and surface water for the present and future beneficial use of the lands or inhabitants in the zone. The boundaries and scope of Zone 40's activities also include the use of recycled water in conjunction with groundwater and surface water. Most of the City's Planning Area is within Zone 40. The Zone 40 Water Supply Master

Plan, adopted in 2005, provides a plan of water management alternatives to be implemented and revised as availability and feasibility of water supply sources change in the future. The Zone 40 Groundwater Management Plan is a planning tool that assists the SCWA in maintaining a safe, sustainable, and high-quality groundwater resource for users of the groundwater basin underlying Zone 40. Section 5.12, Public Utilities, provides additional information regarding water supply and delivery.

Sacramento Central Groundwater Authority

SCGA manages groundwater in the Central Basin portion of the South American Subbasin. SCGA was formed in 2006 through a joint powers agreement signed by the Cities of Elk Grove, Folsom, Rancho Cordova, and Sacramento and Sacramento County. Among its many purposes, SCGA is responsible for managing the use of groundwater in the Central Basin to ensure long-term sustainable yield and for facilitating a conjunctive use program. The framework for maintaining groundwater resources in the Central Basin is the Sacramento County Water Agency (SCWA) Groundwater Management Plan, which includes specific goals, objectives, and an action plan to manage the basin. The plan also prescribes a well protection program to protect existing private domestic well and agricultural well owners from declining groundwater levels resulting from increased groundwater pumping attributable to new development in the basin (SCWA 2016).

The SGMA also authorizes a groundwater management agency in a basin compliant with the California Statewide Groundwater Elevation Monitoring program to prepare an "Alternative" to a groundwater sustainability plan. SCGA submitted an Alternative Submittal document to DWR, but the document was not approved because, among other deficiencies, DWR was unable to verify that groundwater yield thresholds established by SCWA would prevent adverse effects on groundwater (DWR 2019). SCGA is now preparing a Groundwater Sustainability Plan for submittal to DWR by January 31, 2022.

Water Forum Agreement

The Water Forum is made up of a diverse group of businesses, agricultural leaders, environmentalists, citizen groups, water managers, and local governments from Sacramento, Placer, and El Dorado Counties. These stakeholders came together in 2000 to form an agreement for water management with the goals of providing a reliable and safe water supply for the region's economic health through 2030 and preserving the fishery, wildlife, recreation, and aesthetic values of the lower American River. The Water Forum Agreement was formalized through a Memorandum of Understanding whereby all signatories agreed to carry out the actions specified for them. SCGA relied on the negotiated volume of groundwater production referred to in the Water Forum Agreement as the basis for the groundwater yield thresholds described in the Alternative Submittal discussed above.

City of Elk Grove General Plan

The *City of Elk Grove General Plan* (City of Elk Grove 2019a) contains the following policies related to hydrology and water quality:

- ▶ **Policy NR-3-1:** Ensure that the quality of water resources (e.g., groundwater, surface water) is protected to the extent possible.
- ▶ **Policy NR-3-2:** Integrate sustainable stormwater management techniques in site design to reduce stormwater and control erosion.
- ▶ **Policy NR-3-3:** Implement the City's NPDES permit through the review and approval of development project and other activities regulated by the permit.
- ▶ **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:** Support and coordinate with the efforts of the Sacramento Central Groundwater Authority in the development, adoption and ongoing implementation of the Groundwater Sustainability Plan for the South American Subbasin.

- ▶ **Policy ER-2-2:** Require that all new projects not result in new or increased flooding impacts on adjoining parcels or on upstream and downstream areas.
- ▶ **Policy ER-2-3:** Locate, and encourage other agencies to locate, new essential government service facility and essential health care facilities outside of 100-year and 200-year flood hazard zones, except in cases where such locations would compromise facility functioning. *(Proposed to be amended as part of the Project. See Impact 3.9-5.)*
- ▶ **Policy ER-2-4:** Relocate or harden existing essential government service facilities and essential health care facilities that are currently located inside of 100-year and 200-year flood hazard zones.
- ▶ **Policy ER-2-6:** Development shall not be permitted on land subject to flooding during a 100-year event, based on the most recent floodplain mapping prepared by FEMA or updated mapping acceptable to the City of Elk Grove. Potential development in areas subject to flooding may be clustered onto portions of a site which are not subject to flooding, consistent with other policies of this General Plan.
- ▶ **Policy ER-2-8:** The City will not enter into a development agreement, approve a building permit or entitlement, or approve a tentative or parcel map for a project located within an urban level of flood protection area, identified in Figure 8-2 [of the General Plan], unless it meets one or more established flood protection findings. Findings shall be based on substantial evidence, and substantial evidence necessary to determine findings shall be consistent with criteria developed by DWR.

The four potential findings for a development project within the 200-year floodplain, as shown on Figure 8-2 [of the General Plan], are: 1) the project has an urban level of flood protection from flood management facilities that is not reflected in the most recent map of the 200-year floodplain; 2) conditions imposed on the project will provide for an urban level of flood protection; 3) adequate progress has been made toward construction of a flood protection system to provide an urban level of flood protection for the project, as indicated by the Central Valley Flood Protection Board; or 4) the project is a site improvement that would not result in the development of any structure, and would not increase risk of damage to neighboring development or alter the conveyance area of a watercourse in the case of a flood.

- ▶ **Policy ER-2-9:** Ensure common understanding and consistent application of urban level of flood protection criteria and conditions.
- ▶ **Policy ER-2-10:** Work with regional, county, and State agencies to develop mechanisms to finance the design and construction of flood management and drainage facilities to achieve an urban level of flood protection in affected areas.
- ▶ **Policy ER-2-17:** Require all new urban development projects to incorporate runoff control measures to minimize peak flows of runoff and/or assist in financing or otherwise implementing comprehensive drainage plans.
- ▶ **Policy ER-2-18:** Drainage facilities should be properly maintained to ensure their proper operation during storms.
- ▶ **Policy ER-6-8:** Continue to participate in the Sacramento Stormwater Quality Partnership to educate and inform the public about urban runoff pollution, work with industries and businesses to encourage pollution prevention, require construction activities to reduce erosion and pollution, and require developing projects to include pollution controls that will continue to operate after construction is complete.
- ▶ **Policy LU-5-12:** Integrate sustainable stormwater management techniques in site design to reduce stormwater runoff and control erosion.

City of Elk Grove Storm Drainage Master Plan

The City's comprehensive Storm Drain Master Plan (SDMP) identifies drainage concepts for upgrading the existing storm drainage and flood control collection system. It identifies and analyzes existing drainage deficiencies throughout the City, provides a range of drainage concepts for the construction of future facilities required to serve the City at buildout of the existing General Plan, and establishes criteria for selecting and prioritizing projects. The SDMP may also be used for the development of a capital drainage financing program (City of Elk Grove 2011).

City of Elk Grove Municipal Code

Municipal Code Chapter 15.12: Stormwater Management and Discharge Control

Municipal Code Chapter 15.12 provides authority to the City for inspection and enforcement related to control of illegal and industrial discharges to the City storm drainage system and local receiving waters. It also addresses the requirement for BMPs and regulations to reduce pollutants in the City's stormwater.

Municipal Code Chapter 16.44: Land Grading and Erosion Control

Municipal Code Chapter 16.44 establishes administrative procedures, standards for review and implementation, and enforcement procedures for controlling erosion, sedimentation, other pollutant runoff, and the disruption of existing drainage and related environmental damage to ensure compliance with the City's NPDES permit. The chapter requires, before grading activities begin, that a detailed set of plans be developed that include measures to minimize erosion, sediment, and dust created by development activities.

Municipal Code Chapter 16.50: Flood Damage Prevention

Municipal Code Chapter 16.50 regulates development in flood-prone areas through specific siting and design requirements consistent with FEMA regulations.

Flood Combining District

As required by the CVFPP flood management requirements, the City has incorporated related measures into Title 23 of its Municipal Code. Section 23.42.040 establishes a flood (F) combining district comprising all known land covered by rivers, creeks, and streams and land subject to flooding within the City. For certain regulations and standards, the district is divided into three components: F 100, corresponding to the 100-year floodplain; F 200, corresponding to the 200-year floodplain; and F 100/200, corresponding to the area overlapped by both the 100-year and 200-year floodplain. Municipal Code Section 23.42.040.E includes the following requirements:

No development or physical changes requiring a development permit required by this title shall be allowed within the two hundred (200) year floodplain unless it has first met one (1) or more of these findings; these findings shall be made by the designated approving authority, as specified by EGMC Chapter 23.16:

1. The project has an urban level of flood protection from flood management facilities that is not reflected in the most recent map of the two hundred (200) year floodplain;
2. Conditions imposed on the project will provide for an urban level of flood protection;
3. Adequate progress has been made toward construction of a flood protection system to provide an urban level of flood protection for the project, as indicated by the Central Valley Flood Protection Board for State projects, or by the Floodplain Administrator for local projects; or
4. The project is a site improvement that would not result in the development of a new habitable structure, and would not increase risk of damage to neighboring development or alter the conveyance area of a watercourse in the case of a flood. Improvements that qualify for this exemption include, but are not limited to, the replacement or repair of a damaged or destroyed habitable structure with substantially the same building footprint area; interior repairs or remodels to existing structures; new nonhabitable structures or repairs or remodels to nonhabitable structures including but not limited to landscape features, detached garages, and pools and spas.

Southeast Policy Area

The Southeast Policy Area (SEPA) is the last large-scale development area within the existing urbanized portion of the City and is approximately 1,200 acres in size. SEPA has its own storm drainage impact fee that replaces the Sacramento County Storm Drainage Utility Zone 11A fees. Projects in SEPA still pay the Beach Stone Lake fee.

3.9.2 Environmental Setting

HYDROLOGY AND DRAINAGE

Hydrology

The City is located in the southern end of the Sacramento Valley, approximately 30 miles northeast of the confluence of the San Joaquin and Sacramento Rivers. The Sacramento and San Joaquin Valleys make up the Great Valley geomorphic province of California, bounded by the Sierra Nevada to the east and the Coast Ranges to the west. The two rivers join in the Sacramento–San Joaquin Delta (the Delta), a massive complex of wetlands, marshes, and channels, and enter the Pacific Ocean at the San Francisco Bay.

The Sacramento River is the largest river and watershed system in California. Its watershed covers about 27,000 square miles and carries about 31 percent of the State's total surface water runoff. Its watershed covers 27,000 square miles and carries 31 percent of the State's total surface water runoff. Primary tributaries include the Pit, Feather, and American Rivers (SRWP 2010). The mouth of the Sacramento River is at Suisun Bay near Antioch, where it combines with the San Joaquin River. Following winter rains and Sierra snowmelt, the Sacramento River and its tributaries would historically rise and inundate their broad floodplains. This dynamic system deposited rich alluvial soil, changing the river's course, and creating oxbow lakes and backwater, clearing debris and streambeds, and supporting miles of wetlands and riparian forest (USFWS 2007).

Development began in the lower portions of the Sacramento River watershed in the mid-1800s to take advantage of the proximity of two large rivers and fertile soils. Reclamation districts began to form in the early 1900s to construct canal and levee systems as a means for controlling or preventing natural flood events in the low-lying areas adjacent to the river. However, the river channel and levees could not contain the floodwaters from larger storm events. In 1917, after the massive floods of 1907 and 1909, the State of California developed the Sacramento River Flood Control Project. This project is a system of weirs (lowered and armored sections of levees design to be overtopped by high flows) that release floodwaters into a bypass system when flows exceed the downstream capacity of the river channel.

Surface water resources in the Planning Area are part of the Morrison Creek Stream Group, and include Elder, Elk Grove, Laguna (and tributaries), Morrison, Strawberry, and Whitehouse Creeks. The Morrison Creek Stream Group drainage basin covers 192 square miles. The nine creeks that drain into Morrison Creek flow southwest and eventually drain into the Beach-Stone Lakes area west of Interstate 5 (I-5). Florin, Gerber, and Unionhouse Creeks are located close to the Planning Area in Sacramento County. Deer Creek is in the eastern portion of the Planning Area, parallel to the Cosumnes River. The Cosumnes River floodplain forms the eastern border of the Planning Area, and the river is part of the San Joaquin River watershed.

Laguna Creek, the main creek that flows through the City, has been altered by development. Channels, levees, and culverts have been created to alleviate the possibility of flooding, as well as accommodate different development scenarios. Other creeks in the Planning Area have also been similarly altered. However, the Cosumnes River is one of the last free-flowing, undammed rivers on the western slope of the Sierra Nevada.

Stormwater Drainage

Urban runoff is created by stormwater draining from impervious surfaces in developed areas. As stormwater flows from individual sites, it is traditionally collected in curb and gutter drainage systems and directed to larger storm drains that eventually drain to surface waters. Urban runoff within the City is conveyed through a storm drainage and flood control collection system that includes nearly 400 miles of underground piping and 60 miles of natural and constructed channels (City of Elk Grove 2018). The City owns and operates these facilities and channels, including pump stations, levees, detention basins, and other flood control features. The system manages drainage from 13 contributing watersheds and 10 major natural creeks that convey runoff in the City. The City's watersheds ultimately drain into the Stone Lakes National Wildlife Refuge area of Sacramento County, with the exception of the Deer Creek and Grant Line Channel watersheds, which drain to Deer Creek and ultimately to the Cosumnes and Mokelumne Rivers.

Flooding

Flooding affects portions of the Planning Area. The 100-year floodplain zone estimates inundation areas based on a flood that has a 1 percent chance of occurring in any given year. In the Planning Area, 100-year flood zones include areas along Laguna Creek in the northwest and north-central portion of the City, and along the Cosumnes River to the southeast, primarily outside of City limits, but still within the Planning Area. Flood risk is intensified in the lower stream reaches by high tides occurring in the Delta at the same time as strong offshore winds during heavy rainfall. A majority of the special flood hazard areas in the City are in Zone A or Zone AE, as designated by FEMA. Both zones correspond with the 100-year floodplain, and mandate flood insurance for certain homeowners with mortgages. Zone A shows no base flood elevations (BFE), while Zone AE has a BFE of less than 1 foot. The BFE represents the computed elevation to which water is expected to rise during the base flood event, and is used to determine floodproofing requirements for buildings.

A 200-year flood event, which has a 0.5 percent chance of occurring in any given year, could occur along Deer Creek and the Cosumnes River. Much of this land is preserved for agricultural use and would be at limited risk of damage from flood hazard zones. However, a 200-year flood event caused by levee breaks along the Sacramento River could result in flooding in portions of Laguna West, an existing residential neighborhood on the western side of the City. A 500-year flood event, which has a 0.2 percent chance of occurring in any given year, is possible in the northern portion of the City along the Sacramento River and Laguna Creek.

Levees

The existing levee system in areas surrounding the City was initially constructed by hand labor, and later by dredging to hold back river floods and tidal influences, in order to obtain additional lands for grazing and crop growing. Continued maintenance is necessary to hold these levees against the river floods that threaten surrounding areas. Because levees are vulnerable to peat oxidation as well as sand, silt, and peat erosion, new material is continually added to maintain them. Subsiding farmlands adjacent to levees may increase water pressure against the levees, adding to the potential for levee failure. In addition, many levees, known as non-project levees, are not maintained to any specified standard, which can increase the likelihood of failure and inundation. Levee failures can be difficult to predict, since even inspected project levees are prone to failure under certain conditions. DWR has, using the best available information, identified areas where flood levels would be more than 3 feet deep if a project levee were to fail; these areas are known as Levee Flood Protection Zones.

Levee construction, operation, and maintenance that is the responsibility of a federally authorized flood project in the State is considered part of the State Plan of Flood Control. These are referred to as "project levees." There are no project levees in the City, although several project levees are located outside of the Planning Area along the Sacramento River. Non-project levees are levees that were generally constructed prior to project levees and without federal or State assistance, and are not part of the State Plan of Flood Control. Non-project levees are located along the eastern side of I-5 and along Morrison Creek, Laguna Creek, and the Cosumnes River, and provide flood protection to the community. The City conducts levee operation and maintenance activities that result in recommendations as well as requirements for specific levee inspections and maintenance operations. (City of Elk Grove 2018)

Dams

"Dam inundation" refers to flooding that occurs when dams fail. Dam failure can occur from overtopping of a dam during extreme storm events, water seepage through earthen embankments causing internal soil erosion, or damage caused by seismic activities. National statistics show that overtopping due to inadequate spillway design, debris blockage of spillways, or settlement of the dam's crest accounts for approximately 34 percent of all U.S. dam failures (ASDSO 2020).

The Project site is within the inundation area of a failure at Folsom Dam. Folsom Dam, constructed between 1948 and 1956, is a series of earthen dams that flank a central concrete dam. Large storms in 1986 and 1997 forced dam operators to discharge high water flows into the lower American River to avoid overtopping of the dam. However, these high river flows stress river levees that protect the Sacramento area. An auxiliary spillway was constructed adjacent to Folsom Dam's main concrete dam in 2017. The gates of the new spillway structure sit 50 feet lower than the main spillway, which allows the dam manager to better react to large floods by safely releasing water earlier in a storm event

(Reclamation 2020). Currently, Folsom Dam is undergoing a 5-year effort to raise the height of the dam by 3.5 feet to increase flood protection for downstream residents. The work involves packing rock, gravel, dirt, and pavement on top of the earthen portions of the Folsom Dam and dike system. The central concrete dam is already taller than the adjacent earthen dams and will not be raised. The Project will increase the dam capacity by 4 percent (Bizjak 2020).

Climate Change

Climate change forecasts indicate that more intense rainfall events, generating more frequent or extensive runoff and flooding, will occur in the future (City of Elk Grove 2019b). Extreme weather events, such as high-intensity storms, could breach levees along the Sacramento and American Rivers, especially where levees have not yet been upgraded or do not meet the minimum FEMA requirements. Furthermore, as peak flow patterns increase as a result of more rapid snowmelt, the levees currently protecting the Sacramento region from flooding events come under greater stress from long-term increases in peak, high-volume runoff. The increased pressure and flow of the Sacramento and American Rivers will exacerbate the Sacramento region's existing vulnerability to severe flooding (Ascent Environmental 2017). For these reasons, areas within floodplains will be more vulnerable to heightened flooding threats (City of Elk Grove 2019b).

Groundwater Hydrology

The Central Valley of California contains the largest basin-fill aquifer system in the State. From north to south, the aquifer system is divided into the Sacramento Valley, Sacramento–San Joaquin Delta, and San Joaquin Valley subregions. The City of Elk Grove is situated within the Sacramento Valley Groundwater Basin, South American Subbasin. Within the larger South American Subbasin, there are three groundwater basins—North, Central, and South—in Sacramento County. The Project site is located within the Central Basin, which includes the City of Elk Grove and areas of Sacramento County and the City of Sacramento (City of Elk Grove 2018). Groundwater in the Central Basin generally occurs in a shallow aquifer zone (Modesto Formation) or in an underlying deeper aquifer zone (Mehrtens Formation). Groundwater in the shallow aquifer is generally located between 20 and 100 feet below the ground surface (bgs) depending on where and when the measurement is taken and extends to approximately 200–300 feet bgs (SCWA 2006). Water quality in this zone is considered to be good with the exception of high arsenic detections in a few locations. The deep aquifer is separated from the shallow aquifer by a discontinuous clay layer that partially isolates the two water sources. There is some potential for movement of groundwater between the two aquifers, usually the result of heavy groundwater pumping. The base of the potable water portion of the deep aquifer averages approximately 1,400 feet bgs. Water in this aquifer typically has higher concentrations of total dissolved solids, iron, and manganese (SCWA 2006).

Older municipal wells and all domestic wells have been constructed in the shallow aquifer zone to avoid treatment. However, the policies and practices of SCWA in the Central Basin have led to the construction of larger municipal wells that target the Mehrten Formation where higher production rates can be achieved and less impact on private domestic wells would occur. This policy has in turn led to California Department of Health Services (now the California Department of Health Care Services) requiring treatment of all municipal wells to meet primary and secondary drinking water quality standards (SCWA 2006).

Intensive use of groundwater over the past 60 years has resulted in a general lowering of groundwater elevations centered near Elk Grove. This localized lowering of the groundwater table is called a cone of depression. The Elk Grove cone of depression was first identified in the *Central Sacramento County Groundwater Management Plan* (SCWA 2006). The 2018 SGMA annual report found a substantial reduction in the size and extent of the cone of depression, which is attributed to active management of the basin and reductions in groundwater extraction (SGMA 2019).

WATER QUALITY

Surface Water Quality

Section 303(d) of the federal Clean Water Act establishes the total maximum daily load (TMDL) process, which requires states to identify waters whose water quality is "impaired" (affected by the presence of pollutants or contaminants), and to establish a TMDL or the maximum quantity of a particular contaminant that a water body can

assimilate without experiencing adverse effects on the waterbody's identified beneficial uses. The 303(d) list, approved by the EPA, identifies these impaired water bodies. According to the most recent 303(d) list, Elder, Elk Grove, and Morrison creeks are designated as impaired water bodies for various pesticides and sediment toxicity, resulting from urban runoff, agriculture, and unknown sources. The segment of the Sacramento River west of the Planning Area is listed for diazinon and mercury. The Delta waterways (northern portions), which are the downstream receiving waters for the Sacramento River, are designated as impaired water bodies. The upper Cosumnes River (above Michigan Bar) is listed for invasive species from an unknown source, and Deer Creek in Sacramento County is listed for iron from an unknown source (SWRCB 2010).

Groundwater Quality

Groundwater quality can be affected by many things, but the chief controls on the characteristics of groundwater quality are the source and chemical composition of recharge water, properties of the host sediment, and history of discharge or leakage of pollutants. The groundwater quality in the South American Subbasin is generally good, although iron and manganese are common and there are some occurrences of arsenic and nitrate. Groundwater in the upper aquifer system is of higher quality than that found in the lower aquifer system, although there are some occurrences of arsenic (which is known to occur naturally in aquifer sediments) and nitrate. Water from the upper aquifer generally does not require treatment other than disinfection for public drinking water systems unless high arsenic or nitrate values are encountered. The lower aquifer system contains higher concentrations of iron, manganese, and total dissolved solids (TDS), and wells that pump from the lower aquifer often require treatment for iron and manganese. Most of the SCWA's Zone 40 wells have iron and manganese treatment facilities. Principal groundwater contaminant plumes within the South American Subbasin emanate from source areas including Mather Field, Aerojet, Boeing, the former Army Depot, and various landfills. The presence of these contaminant plumes has impacted some existing municipal wells. Significant remediation efforts/programs by federal, State, and local government agencies are in progress to clean up the contaminated groundwater and confine the contaminant plumes from further spreading. There are ongoing discussions and negotiations between purveyors and parties responsible for the cleanup to keep the remediated groundwater in the South American Subbasin and put it to beneficial use (SCWA 2016).

3.9.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following impact analysis is based primarily on review of the information and analysis presented in the General Plan EIR as well as available literature, including documents published by the City of Elk Grove, State and federal agencies, and published information dealing with hydrology and water quality in the Elk Grove area. In determining the level of significance, the analysis assumes that the Project would comply with relevant federal, state, and local laws, ordinances, and regulations.

THRESHOLDS OF SIGNIFICANCE

An impact on hydrology or water quality is considered significant if implementation of the Project would do any of the following:

- ▶ violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- ▶ substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- ▶ substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would:

- result in substantial erosion or siltation on- or off-site;
 - result in flooding on-site or off-site;
 - create or contribute runoff water that would exceed the capacity of existing or planned stormwater- drainage systems or provide substantial additional sources of polluted runoff;
 - impede or redirect flood flows.
- ▶ in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and/or
 - ▶ conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

Inundation

In the event of dam failure, Folsom Dam and Sly Park Dam have the potential to cause flooding in the Planning Area. Flooding from Folsom Dam would affect existing development in the northwestern part of the City, which is already urbanized. The US Army Corps of Engineers is completing improvements to the Folsom Dam spillway on the American River to help reduce downstream flood risk. Flooding from Sly Park Dam would generally follow the Cosumnes River and would only affect a small area located between the North and East Study Areas. The potential for flooding from failure of either Folsom Dam or Sly Park Dam would not be exacerbated by the Project (City of Elk Grove 2018:5.9-27). Therefore, this issue as it relates to flooding due to dam failure is not subject to further analysis in this Draft SEIR.

Seiche, Tsunami, and Mudflow

As discussed in the General Plan EIR, the City is unlikely to be the site of a seiche, tsunami, or mudflow (City of Elk Grove 2018:5.9-28). Therefore, this issue is not addressed further in this Draft SEIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.9-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Substantially Degrade Surface Water or Groundwater Quality during Construction Activities

General Plan EIR Impact 5.9.1 determined that potential impacts on water quality from future development activities would be reduced to a less-than-significant level through compliance with all applicable requirements, which could include Chapter 16.44 of the Elk Grove Municipal Code and the State's Construction General NPDES permit. Implementation of the Housing Element and Safety Element Update would be required to comply with these requirements and would not result in a new or substantially more severe water quality impacts than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

General Plan EIR Impact 5.9.1 evaluated whether future development in the Planning Area that would involve construction-related activities that could expose soil to erosion during storm events, causing degradation of water quality. The analysis noted that individual development projects in the Planning Area would be required to comply with Chapter 16.44 of the Elk Grove Municipal Code, which requires implementation of measures to minimize erosion, sediment, dust, and other pollutant runoff created by improvement activities. Also, individual development projects that would disturb 1 acre or more would also be required to obtain coverage under the State's Construction General NPDES permit, which requires projects to develop and implement a SWPPP that includes BMPs and requires inspections of stormwater control structures and pollution prevention measures. The analysis concluded that compliance with applicable water quality regulations and proposed General Plan policies, implementation of the General Plan would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality. And, as a result, it would not violate the Water Quality Control Plan for the Sacramento River Basin and San Joaquin River Basin (Basin Plan). The impact would be **less than significant**.

Implementation of the Housing Element Update would facilitate the construction of additional residential units to accommodate anticipated housing demand. Implementation of the Safety Element Update could result in construction of projects involving emergency access improvements. Future projects under both elements would be required to adhere to all applicable requirements, including Chapter 16.44 of the Elk Grove Municipal Code and the State's Construction General NPDES permit, as applicable. Compliance would be demonstrated through submittal of site plans and/or improvement plans that identify the use of specific BMPs. The water quality protections built into NPDES and City permitting would reduce the potential for construction activities and construction dewatering to adversely affect water quality. There is no new significant effect and the impact is not more severe than identified in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with Municipal Code Chapter 16.44 and the Construction General NPDES Permit.

Impact 3.9-2: Violate Any Water Quality Standards or Substantially Degrade Surface Water or Groundwater Quality from Polluted Stormwater Runoff

General Plan EIR Impact 5.9.1 determined that potential impacts on water quality from polluted stormwater runoff from future development would be reduced to a less-than-significant level through compliance with all applicable regulations and General Plan policies. Implementation of the Housing Element and Safety Element Update would be required to comply with these requirements and would not result in a new or substantially more severe impacts from polluted stormwater runoff than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

As discussed in Impact 3.9-1 above, Impact 5.9.1 of the General Plan EIR evaluated the potential for future development under the General Plan to result in polluted stormwater runoff during operation (i.e., postconstruction). In compliance with the City's MS4 permit, General Plan Policies NR-3-2, NR-3-3, and LU-5-12, and Municipal Code Chapter 15.12, the City must require projects within the permit boundary to implement LID practices and BMPs to control stormwater runoff and protect water quality. LID uses site design and stormwater management to maintain the site's predevelopment runoff rates and volumes. The goal of LID is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall. LID practices and standards are described in the 2018 Sacramento Region Stormwater Quality Design Manual. Compliance with applicable regulations and General Plan policies would ensure that future projects would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality.

Implementation of the Housing Element Update would facilitate the construction of additional residential units to accommodate anticipated housing demand and potential emergency access and evacuation improvements. Implementation of the Safety Element Update could result in projects involving emergency access improvements resulting in ground disturbing activities that may affect water quality. Future projects under the Project would be required to adhere to all applicable requirements, including designing projects to be in compliance with the City's MS4 permit, General Plan, and Municipal Code. The water quality protections built into City's permitting process would reduce the potential for operation of future development under the Project to adversely affect water quality. There is no new significant effect, and the impact is not more severe than identified 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 MS4 permit, General Plan Policies NR-3-2, NR-3-3, and LU-5-12, and Municipal Code Chapter 15.12.

Impact 3.9-3: Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That the Project May Impede Sustainable Groundwater Management

General Plan EIR Impact 5.9.4 determined that impacts on groundwater supplies from future development under the General Plan would be significant and unavoidable for areas that would be annexed into the City. The Project involves parcels within the City and would not include any annexation activities. While the Project would add additional residential units beyond what was anticipated in the General Plan EIR, the increase in demand for water supply would be minor in comparison with anticipated supply surpluses. Therefore, Project impacts would be **less than significant**.

General Plan EIR Impact 5.9.4 evaluated the potential for implementation of the General Plan to result in an increased demand for water supplies, some of which would be groundwater. The analysis noted that although existing programs are in place to protect groundwater resources to ensure the sustainable yield set forth in the Water Forum Agreement, it was conservatively concluded that this was a potentially significant impact because future development under the General Plan may contribute to conditions that could affect aquifer volume or groundwater levels, and the City has no authority over management of groundwater resources. Further, the development of future groundwater supplies by SCWA (if determined by SCWA to be necessary) could result in environmental impacts, some of which may be significant. Examples of such impacts could include effects on biological resources, changes in surface water flows, or changes in groundwater levels. The SCWA would need to conduct project-level CEQA and possibly NEPA analysis, as necessary, to analyze specific impacts and identify any required mitigation measures. The General Plan EIR adopted Mitigation Measure 5.9.4, which requires implementation of adopted Mitigation Measure MM 5.12.1.1. Mitigation Measure 5.12.1.1 requires demonstration of adequate water supply prior to annexation through preparation of a Plan for Services prepared by the City and submitted to Sacramento Local Agency Formation Commission for approval. The analysis in the General Plan EIR concluded that there is no additional feasible mitigation to reduce this impact to less than significant, and this would remain a significant and unavoidable impact.

Implementation of the Housing Element Update would accommodate additional residential units beyond the amount anticipated in the General Plan EIR. Implementation of the Safety Element Update includes text changes to the element regarding emergency access and evacuation but would not result in activities that could affect groundwater resources. As calculated in Impact 3.15-1 of this Draft SEIR, the land use changes associated with the General Plan land use redesignation of candidate housing sites under the Housing Element Update could result in an increased demand for water of 45.11-acre feet per year (AFY) beyond what was anticipated under General Plan buildout of the City. For 2040, SCWA estimates a water demand of 86,047 AFY with surpluses ranging from 4,752 AFY to 18,853 AFY (City of Elk Grove 2018: Table 5.12-4). The additional demand represents less than one percent of the lowest projected surplus and 0.08 percent of the lowest projected demand. Given the small amount of increase from the Project relative to SCWA projected demands and surpluses, it is not anticipated that additional water supplies would need to be secured to serve the additional housing development under the Housing Element Update. While some of SCWA's supply comes from groundwater, the Project's additional water demand is minor compared with existing and projected demand and supplies that it is unlikely to result in substantially greater impacts to groundwater resources beyond what was identified in the General Plan EIR. For more information regarding SCWA demand, supply, and surplus, please see Impact 5.12-1 of this Draft SEIR.

The additional water demand from implementation of the Project would not be likely to require SCWA to seek additional groundwater supply to meet its demands. Thus, the Project would not result in a new or substantially more severe impacts regarding groundwater supply than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-4: Increase Localized Flooding Risk Because of Changes in Site Drainage

General Plan EIR Impact 5.9.2 determined that potential increases in flooding resulting from future development would be reduced to a less-than-significant level through compliance with all applicable regulations and General Plan policies. Future projects under the Housing Element and Safety Element Update would be required to comply with these requirements and would not result in a new or substantially more severe drainage and flooding impacts than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

General Plan EIR Impact 5.9.2 evaluated whether future urbanization in the Planning Area would increase stormwater runoff as a result of changes in drainage patterns and increases in impervious surface. The analysis noted that within the City limits, infill-type development and development near transportation modes would be encouraged under the General Plan. This type of future development would not have a substantial effect on drainage patterns or stormwater runoff volumes. Some additional runoff due to changes in drainage patterns and increases in impervious surfaces would be expected if vacant or underutilized parcels, which are primarily located in the eastern part of the Planning Area, are urbanized. Stormwater management within the City limits would be guided by the SDMP. The analysis concluded that adherence to General Plan policies, the City's NPDES MS4 requirements, and Chapter 16.44 of the Municipal Code, all of which would be confirmed by City staff during project site design review and approval future projects that could be constructed in the Planning Area under the General Plan would not create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems, or contribute additional sources of polluted runoff. The General Plan EIR concluded that this impact would be less than significant.

Implementation of the Housing Element and Safety Element Update would accommodate additional residential units beyond the amount anticipated in the General Plan EIR as well as the potential of new emergency and evacuation access improvements. However, subsequent projects under these elements would all be located within the existing City boundaries and therefore subject to the SDMP. Because future development under the elements would also be consistent with General Plan policies, the City's NPDES MS4 requirements, and Section 16.44 of the Municipal Code, the Project would not result in drainage impacts beyond those evaluated 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 NPDES MS4 permit requirements and Municipal Code Chapter 16.44.

Impact 3.9-5: Impede or Redirect Flood Flows

General Plan EIR Impact 5.9.3 determined that future development under the General Plan within the 100-year and 200-year flood zones could impede or redirect flood flows, but compliance with existing regulations and the proposed General Plan would ensure that impacts would be less than significant. Two of the housing sites (E-15 and C-4) are within the 200-year floodplain. Development proposals for these sites would be subject to the requirements of Municipal Code Section 23.42.040, which would ensure that development would not be approved until findings can be made pursuant to Municipal Code Section 23.42.040.E. Therefore, Project impacts would be **less than significant**.

General Plan EIR Impact 5.9.3 evaluated whether future development under the General Plan would have the potential to impede or redirect flood flows. The analysis noted that future development that could occur in areas subject to 100-year or 200-year flood hazards could impede or redirect flood flows. However, with implementation of General Plan policies and existing regulations, the potential for future development to cause new flooding or exacerbate flood hazards would be less than significant.

As discussed in Section 3.9.1, "Regulatory Setting," the City has incorporated flood management measures into Title 23 of its Municipal Code. Section 23.42.040 establishes a flood (F) combining district comprising all known land covered by rivers, creeks, and streams and land subject to flooding within the City. Section 23.42.040.E includes multiple requirements, at least one of which must be met before development would be approved for parcels in the 200-year floodplain. Requirements include demonstration that the parcel has an urban level of flood protection,

conditions that would impose the project to provide for an urban level of flood protection, demonstration of adequate progress towards an urban level of flood protection, or demonstration that site improvements would not include any new habitable structures and would not increase the risk of flood damage to neighboring development. It should be noted that pursuant to Government Code Section 65913.4(a)(6)(G), local governments shall not deny an application for affordable housing projects on the basis that the project does not comply with any additional permit requirement, standard, or action adopted by that local government that is applicable to that site, if the project is otherwise eligible for streamlined approval under that section.

Housing sites E-15 and C-4 are located within the 200-year floodplain. There are no housing sites proposed in any 100-year floodplain areas. Because they are located within the 200-year floodplain, housing sites E-15 and C-4 could be subject to inundation by up to 10 feet of water in the event of a levee or dam failure (City of Elk Grove 2019c). Potential future emergency access and evacuation improvements from implementation of the Safety Element Update could be located within the 100- and 200-year floodplains but would not result in a flood hazard and would not be required to comply with Municipal Code standards set forth Section 23.42.040. Future development of housing sites would be subject to the requirements of Municipal Code Section 23.42.040, which would ensure that development would not be approved until findings can be made pursuant to Municipal Code Section 23.42.040.E that requires the provision of an urban level of flood protection. Because subsequent projects under the elements would be subject to the Municipal Code and applicable General Plan policies, the Project would not result in flood hazard impacts beyond those evaluated in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with Municipal Code Section 23.42.040.

3.10 LAND USE, PLANNING, POPULATION, AND HOUSING

This section evaluates consistency of the Housing Element and Safety Element Update (Project) with applicable land-use plans and policies adopted to address environmental effects. The physical environmental effects associated with the Project, many of which pertain to issues of land use compatibility (e.g., noise, aesthetics, air quality) are evaluated in other sections of this Draft SEIR. This section also describes the existing population and housing conditions and evaluates the Project's potential effects related to population and housing.

Comments received in response to the NOP included concerns related to incorrect location information provided in the NOP for site C-16 and pending applications on housing sites C-6 and C-15. The comment regarding site C-16 is correct and the site's location information is correctly identified in Chapter 2, "Project Description," of this Draft SEIR. It is important to note that an application alone does not create a vested right to the existing zoning, and that the City has discretion to change zoning of individual parcels. Potential conflicts with land use policies is addressed in this section. However, as noted above, the potential physical environmental effects of the land use changes are addressed in the various sections of this Draft SEIR.

3.10.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to land use, planning, population, or housing are applicable to the Project.

STATE

Regional Housing Needs Plan

California General Plan law requires each city and county to have land zoned to accommodate a fair share of the regional housing need. The state determines the fair share allocated to each region in the state. The share is known as the Regional Housing Needs Allocation (RHNA). The RHNA for the Sacramento region is based on a Regional Housing Needs Plan (RHNP) developed by the Sacramento Area Council of Governments (SACOG). SACOG is the lead agency for developing the RHNP for a six-county area that includes Sacramento County and the City of Elk Grove. The Housing Element is required to accommodate the City's fair share of the RHNA that covers the period from May 15, 2021 through May 15, 2029. The City's allocation consists of 8,263 units (2,661 very low, 1,604 low, 1,186 moderate, and 2,812 above moderate income). The City is not required to make development occur; however, the City must facilitate housing production by ensuring that land is available and that unnecessary development constraints have been removed.

LOCAL

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

In 2019, SACOG adopted the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), a regional growth strategy based on local land use plans. The MTP/SCS forecasts that the Sacramento region will add 620,000 people, as well as the jobs and housing to support them, between 2016 and 2040 (SACOG 2019:24).

Most of the existing and candidate housing sites are within areas identified as an Established Community in the MTP/SCS, though some sites are within the Developing Community type (SACOG 2019:Figure 3.5). Local land use plans generally aim to maintain the existing character and land use pattern in these areas, many of which are suburbs. Selective infill development, consistent with existing planning designations, is projected to occur gradually. Nearly two-

thirds of the region's new housing and 85 percent of its job growth between 2016 and 2040 is expected to be in Center and Corridor (i.e., downtowns and commercial corridors) and Established Communities while the remaining third of new housing and 15 percent of job growth is expected to be in Developing Communities (SACOG 2019:39).

City of Elk Grove General Plan

General plans are prepared under a mandate from the State of California, which requires each city and county to prepare and adopt a comprehensive, long-term general plan for its jurisdiction and any adjacent related lands. The general plan is a fundamental planning document that directs future growth, development, and conservation policy and reflects that long-range vision of the community. Under state law, city ordinances regulating land use must be consistent with the general plan. The zoning code, specific plans, and individual project proposals must be consistent with the goals, policies, and standards contained in the general plan. In addition, all capital improvements and public works projects must be consistent with the general plan.

The 2019 City of Elk Grove General Plan (General Plan) is a broad framework for planning the future of Elk Grove. It is the official policy statement of the City Council that is used to guide the private and public development of the City in a manner to gain the maximum social and economic benefit to the citizens. At buildout under the General Plan, the City is expected to have 102,865 dwelling units, 332,254 residents, and 122,155 jobs (City of Elk Grove 2019:Table 3-2).

General Plan Land Use Diagram

The General Plan's Land Use Diagram is one of the most important functions of the General Plan, as the map and policies will determine the City's future land uses and character. The Land Use Diagram portrays the ultimate uses of land in Elk Grove through land use designations. The existing Land Use Diagram designations for the 43 housing sites (18 existing sites and 25 candidate sites) are identified in Table 2-2 in Chapter 2, "Project Description." Each of the land use designations are described below.

Community Commercial (CC)

Community Commercial uses are generally characterized by retail and service uses that meet the daily needs of residents in surrounding neighborhoods and community needs beyond the surrounding neighborhood. These uses may consist of a unified shopping center with or without a major anchor store. Retail and service uses are predominant, with limited office and professional spaces allowed. Limited residential uses may be allowed when integrated with nonresidential uses within an approved District Development Plan and consistent with zoning. Community Commercial uses are generally oriented along at least one major roadway offering primary access.

Regional Commercial (RC)

Regional Commercial uses are generally characterized by retail and service uses that serve a regional market area. These uses typically consist of a unified shopping center with major anchor stores and encompass a larger total area than Community Commercial uses. Retail and service uses are intended to be the predominant use. Office and professional uses are also allowed. Limited residential uses may be allowed when integrated with nonresidential uses within an approved District Development Plan and consistent with zoning. Regional Commercial uses are generally located near intersections of two or more major roadways offering primary access.

Employment Center (EC)

Employment Center uses are generally characterized by office uses and professional services or research and development facilities, which may include limited supporting and ancillary retail services. Limited light industrial spaces are allowed, generally as accessory uses. Employment Centers may be located near residential areas with good transportation.

Village Center Mixed Use (VCMU)

Village Center Mixed uses are generally characterized by pedestrian-oriented development, including integrated public plazas, with mixes of uses that focus on ground-floor commercial retail or office uses and allow residential or office uses above. Vertical integration should be prioritized along public transportation corridors and in activity nodes. Single-use buildings may also be appropriate when integrated into the overall site through horizontal mixes of uses, including public plazas, emphasizing pedestrian-oriented design. The predominant use is intended to be office,

professional, or retail use in any combination, and may be supported by residential uses. Village Centers are generally located along transit corridors with access from at least one major roadway. Secondary access may be allowed from minor or local roadways.

Residential Mixed Use (RMU)

Residential Mixed uses are generally characterized by pedestrian-oriented development, including integrated public plazas, with vertical mixes of uses that feature ground-floor activity spaces, live-work units, or retail or office uses and allow residential uses above. Single-use buildings may also be appropriate. The predominant use is intended to be residential uses supported by commercial or office uses. Residential Mixed Use areas are generally located along transit corridors with access from at least one major roadway. Secondary access may be allowed from minor or local roadways. These areas may also serve as buffers between commercial or employment land uses and residential areas.

Rural Residential (RR)

Rural Residential uses are generally characterized by large-lot rural residential development. Limited agricultural uses and animal-keeping are also allowed. Lot sizes typically range from 2 to 10 acres.

Estate Residential (ER)

Estate Residential uses are generally characterized by large-lot residential development, including but not limited to ranchette or estate homes. Lot sizes typically range from 0.25 to 2 acres.

Low Density Residential (LDR)

Low Density Residential uses are generally characterized by single-family detached residential development. Lot sizes typically range from 6,000 to 10,000 square feet.

Medium Density Residential (MDR)

Medium Density Residential uses are generally characterized by small-lot single-family residential development (attached or detached), duplexes, townhomes, garden apartments, or apartments. Surrounding land uses, existing or planned amenities, and accessibility should be considered when determining appropriate densities for developments within the Medium Density Residential range. Developments located along transit corridors or in close proximity to nonresidential uses should develop at the higher end of the density range.

High Density Residential (HDR)

High Density Residential uses are generally characterized by attached homes, townhomes, garden apartments, and apartments.

General Plan Policies

City of Elk Grove General Plan policies and standards applicable to environmental issues associated with land use, planning, population, and housing are presented below. General Plan policies associated with specific environmental topics (air quality, biological resources, greenhouse gas, hazards, hydrology/water quality, noise, public services, recreation, transportation, and utilities) are discussed in the relevant chapters of this SEIR.

- ▶ **Policy LU-1-3:** Multifamily housing development should be located according to the general criteria as identified in Policy H-1-3.
- ▶ **Policy LU-3-7:** Residential Neighborhood Districts should meet the following guidelines:
 - Rural Residential uses should be buffered from higher-intensity uses with Open Space, Community Commercial, or Estate or Low Density Residential uses.
 - Low Density Residential uses should not be located adjacent to Heavy Industrial land uses.
 - Medium and High Density Residential uses should be located within one-half mile of planned or existing transit stops, planned or existing commercial uses, and planned or existing Parks or Open Space areas.
 - Agriculture uses should be buffered from higher-intensity uses that may result in conflict, including residential uses in the Estate Residential land

- use designation and those uses of higher density. Buffering should occur within new development areas and shall include interim buffers for phased development such that the physical and economic integrity of agricultural lands is maintained.
- ▶ **Policy H-1:** Maintain an adequate supply of appropriately zoned land with available or planned public services and infrastructure to accommodate the City's projected housing needs for all income levels and for special needs groups.
- ▶ **Policy H-2:** Continue to support zero-lot-line or reduced setback single-family residential developments and corner duplexes, in addition to multifamily projects, to increase affordable housing supply.
- ▶ **Policy H-3:** Promote development where affordable housing is near services, shopping, and public transportation.
- ▶ **Policy H-4:** Facilitate and encourage the construction of housing affordable to extremely low-, very low-, low-, and moderate-income households by assisting nonprofit and for-profit developers with financial and/or technical assistance in a manner that is consistent with the City's identified housing needs.
- ▶ **Policy H-5:** Increase access to homeownership by coordinating with developers to identify units appropriate for homeownership for low- and moderate-income households and by working with other agencies to increase access to homeownership for first-time homebuyers and low- and moderate-income households.
- ▶ **Policy H-6:** Support energy-conserving programs in the production and rehabilitation of affordable housing to reduce household energy costs, improve air quality, and mitigate potential impacts of climate change in the region.
- ▶ **Policy H-7:** Continue to support housing opportunities for agricultural workers, homeless people, seniors, single-parent households, large families, and persons with disabilities.
- ▶ **Policy H-8:** Assist extremely low-, very low-, and low-income households in locating affordable housing and finding sources of assistance with housing payments and rent.
- ▶ **Policy H-9:** Continue to monitor Title 23 of the Municipal Code, entitled Zoning, and other regulations to ensure that the City's policies and regulations do not inappropriately constrain housing development and affordability.
- ▶ **Policy H-10:** Continue to make efforts to keep the review process for extremely low-, very low-, and low-income housing developments and special-needs housing as streamlined as possible.
- ▶ **Policy H-11:** Encourage creative and flexible design for residential developments.
- ▶ **Policy H-12:** Review the Housing Element to determine the appropriateness of the document to current conditions.
- ▶ **Policy H-13:** Ensure that affordable housing stock is maintained in good, safe, and decent condition.
- ▶ **Policy H-14:** Ensure the retention of the City's mobile home park.
- ▶ **Policy H-15:** Monitor the conversion of rental housing to condominiums to retain the supply of rental housing.
- ▶ **Policy H-16:** Prohibit discrimination in the sale or rental of housing to anyone on the basis of race, color, ancestry, national origin, religion, disability, sex, familial status, marital status, or other such arbitrary factors.
- ▶ **Policy H-17:** Preserve existing affordable housing developments at risk of converting to market rate.

CITY OF ELK GROVE MUNICIPAL CODE - ZONING

Title 23, Zoning, of the City of Elk Grove Municipal Code carries out the policies of the Elk Grove General Plan by classifying and regulating the uses and development of land and structures within the City, consistent with the General Plan. The Zoning Code is adopted to protect and to promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses in the City [Ord. 8-2011 §3(B), eff. 6-24-2011].

Zoning Districts

The following is a general description of each of the zoning district categories of existing and candidate housing sites.

Agricultural Districts

- ▶ **Agricultural Districts (AG).** The AG districts are applied to areas of the City for viable agricultural use and very low density residential use. The agricultural zoning districts allow for a wide range of agricultural uses on large parcels of land. These uses may include crop production, commercial riding academies and stables, animal keeping, agricultural labor housing, and compatible accessory uses. The zoning district number associated with the AG districts corresponds to the minimum lot size in such district.
 - AG-80. The AG-80 zone is applied to areas of the City to accommodate a wide range of agricultural uses on parcels of land a minimum of eighty (80) gross acres in size.
 - AG-20. The AG-20 zone is applied to areas of the City to accommodate agricultural use on parcels a minimum of twenty (20) gross acres in size.
- ▶ **Agricultural Residential (AR).** The AR districts are applied to areas of the City intended to accommodate very low density single-family residential uses in a rural setting with agricultural and accessory uses. The AR districts implement the estate residential and rural residential General Plan land use designation. The zoning district number associated with the AR districts corresponds to the minimum lot size in such district.
 - AR-1. The AR-1 zoning district is applied to areas of the City to accommodate low density single-family residential uses in a rural setting with agricultural and accessory uses. The AR-1 zoning district implements the estate residential General Plan designation. The AR-1 district allows for one (1) primary residential unit on lots with a minimum size of one (1) gross acre. While the AR-1 zoning district falls within the estate residential density range of the General Plan, the nature and character of the district is more in keeping with the rural residential land use designation of the General Plan. These zoning districts also allow for normal agricultural uses and practices.
 - AR-2. The AR-2 zoning district is applied to areas of the City to accommodate low density single-family residential uses in a rural setting with agricultural and accessory uses. Lots with this zoning designation are rural in nature and include small local roadways, animal keeping and raising, equestrian uses, agriculture, and limited commercial opportunities. The AR-2 zoning district implements the rural residential General Plan designation. The AR-2 district allows for one (1) primary residential unit on lots with a minimum size of two (2) gross acres.
 - AR-5, AR-10. The AR-5 and AR-10 zoning districts are applied to areas of the City to accommodate low density single-family development along with agricultural and accessory uses. Lots within the AR-5 and AR-10 zoning designations are rural in nature and include small local roadways, animal keeping and raising, equestrian uses, agriculture, and limited commercial opportunities. The AR-5 and AR-10 zoning districts implement the rural residential General Plan designation. The AR-5 zoning district allows for one (1) residential unit on lots with a minimum size of five (5) gross acres. The AR-10 zoning district allows for one (1) primary residential unit on lots with a minimum size of ten (10) gross acres.

Residential Districts

- ▶ **Very Low Density Residential (RD-1 through RD-3).** The very low density residential zoning district designations are applied to areas of the City intended to accommodate very low density single-family residential uses in a semi-rural setting. Residential densities shall be in the range of one (1) to three (3) dwelling units per acre with minimum lot sizes between one-third (1/3) acre to one (1) acre. This residential designation includes the following specific zoning districts:
 - RD-1, RD-2, and RD-3. The RD districts are applied to areas of the City intended to accommodate very low density single-family estate type uses. Property with these RD designations should serve as a transitional residential district between agricultural residential and traditional lower density single-family neighborhoods. The zoning district number associated with the RD districts corresponds to the number of dwelling units permitted per acre of land. These RD districts allow a density range of one (1) to three (3) dwelling units per acre.

- ▶ **Low Density Residential (RD-4 through RD-7).** The low density residential zoning district designations are applied to areas of the City intended to accommodate low density single-family residential neighborhoods. Typical development includes detached (and in some cases attached) single-family homes. Permitted uses in the RD districts include single-family and two-family homes, second units, and compatible neighborhood support facilities. Residential densities shall be in the range of 3.1 to seven (7) dwelling units per acre. Property with this designation should be located near other residential properties, schools, parks/open space, and neighborhood commercial services with low-impact office and light industrial uses nearby. Development standards for these districts allow design flexibility and promote a range of housing densities and variety of housing types. This residential designation includes the following specific zoning districts:
 - RD-4. The RD-4 district is intended for detached single-family and two-family homes up to a maximum density of four (4) dwelling units per acre. Development is typically one (1) and two (2) stories in height with larger yard areas.
 - RD-5. The RD-5 district allows single-family and two-family homes up to a maximum density of five (5) dwelling units per acre. This district may include detached and attached housing types. Development is typically one (1) and two (2) stories in height with private yard areas.
 - RD-6. The RD-6 district allows single-family and two-family homes up to a maximum density of six (6) dwelling units per acre. This district may include detached and attached housing types, as well as cluster developments. Building heights in this district are typically one (1) and two (2) stories. Development standards allow for a variety of housing types.
 - RD-7. The RD-7 district allows single-family and two-family homes up to a maximum density of seven (7) dwelling units per acre. This district may include detached and attached housing types, as well as cluster developments. Building heights in this district are typically one (1) and two (2) stories. Development standards allow for a variety of housing types.
- ▶ **Medium Density Residential (RD-8, RD-10, RD-12, and RD-15).** The medium density residential zoning district designations are applied to areas of the City intended to accommodate higher density single-family and lower density multifamily residential neighborhoods. These RD districts accommodate a variety of housing types with a density range between 7.1 and fifteen (15) dwelling units per acre. Specifically, medium density residential development may include detached and attached single-family homes, duplexes, townhomes, condominiums, row houses, and garden apartments. Development standards for these districts allow significant design flexibility to encourage a broad range of housing types and are intended to ensure compatibility and connectivity with surrounding neighborhoods and uses. This residential designation includes the following specific zoning districts:
 - RD-8. The RD-8 district allows single-family and two-family homes up to a maximum density of eight (8) dwelling units per acre. This district may include detached and attached housing types, as well as cluster developments. Building heights in this district are typically one (1) and two (2) stories. Development standards allow for a variety of housing types.
 - RD-10. The RD-10 district allows higher density single-family attached and detached homes, and may include lower density multifamily for-sale and for-lease units with a maximum of ten (10) dwelling units per acre. Property with this designation should be located near other residential sites, offices, commercial uses and services, or light industrial areas. Development is typically one (1) and two (2) stories in height (three (3) stories in some cases) with greater lot coverage than the low density single-family residential districts.
 - RD-12. The RD-12 district allows higher density single-family attached and detached homes, and may include lower density multifamily for-sale and for-lease units with a maximum of twelve (12) dwelling units per acre. Property with this designation should be located near other residential sites, offices, commercial uses and services, or light industrial areas. Development is typically one (1) and two (2) stories in height (three (3) stories in some cases) with greater lot coverage than the low density single-family residential districts.
 - RD-15. The RD-15 district may include single-family, two-family, and/or multifamily residential use within a maximum density of fifteen (15) dwelling units per acre. Development may include both for-sale and for-

lease products, such as small-lot single-family attached or detached homes, townhomes, condominiums, row houses, and garden apartments. Residential structures are typically one (1) and two (2) stories in height (three (3) stories in some cases) with greater lot coverage than the low density single-family residential districts. The RD-15 district should serve as a transitional residential district between lower density single-family neighborhoods and high density residential districts, office buildings, commercial uses, or light industrial uses. RD-15 sites should be located near arterial or collector roads.

- ▶ **Medium-High Density Residential (RD-18).** The medium-high density residential zoning district is intended for attached single-family homes, such as townhomes or row houses, as well as medium density multifamily development that includes apartments and condominiums up to a maximum density of eighteen (18) dwelling units per acre. Development is typically two (2) stories in height (three (3) stories in some cases) with greater lot coverage than the medium density residential districts.
- ▶ **High Density Residential (RD-20 through RD-40).** The high density residential zoning district designations are applied to areas of the City intended to accommodate higher density multifamily development such as apartments and condominiums. This designation may also include high density single-family development types such as townhomes and other attached housing types. High density detached homes may be considered in the RD-20 designation. Residential densities shall be in the range of 15.1 to forty (40) dwelling units per acre. Property with this designation should be located near other multifamily sites, offices, commercial uses, or light industrial areas. Additionally, multifamily residential sites should be located along thoroughfare, arterial, or collector roads or near existing or planned public transit stops. Standards for these districts promote attractive residential development that is compatible with surrounding neighborhoods, while at the same time carefully regulating uses to assure compatible development that limits impacts on surrounding uses. This residential designation includes the following specific zoning districts:
 - RD-20. The RD-20 district is intended for high density attached single-family homes, such as townhomes or row houses, as well as multifamily development that includes apartments and condominiums up to a maximum density of twenty (20) dwelling units per acre. Detached single-family homes may be considered on a case-by-case basis with a conditional use permit request. Development is typically two (2) stories in height (three (3) stories in some cases) with greater lot coverage than the medium density residential districts.
 - RD-25. The RD-25 district is intended for high density residential development, including apartments and condominiums. The maximum density in this district is thirty (30) dwelling units per acre and it is expected that most developments will be two (2) to three (3) stories in height with greater lot coverage than in the RD-20 district.
 - RD-30. The RD-30 district is intended for high density residential development, including apartments and condominiums. The maximum density is thirty (30) dwelling units per acre. Apartments or condominiums are generally expected to be the primary type of development in this district.
 - RD-40. The RD-40 district is intended for high density residential development, including apartments and condominiums. The maximum density is forty (40) dwelling units per acre. Apartments or condominiums are generally expected to be the primary type of development in this district.

Commercial Districts

- ▶ **Limited Commercial (LC).** The limited commercial district is designed to foster low intensity neighborhood-oriented commercial development adjacent to, integrated within, or at the entrance to residential neighborhoods. The limited commercial district may also be located along arterial or collector roads at midblock locations between major intersections. This district is intended to promote a mix of retail goods and services as well as small-scale office uses and low intensity mixed-use development. Limited commercial properties should be smaller in size, developed with buildings that are compatible in scale with surrounding residential neighborhoods. Development should be pedestrian-friendly with entrances and windows oriented to the sidewalk/street.

- ▶ **General Commercial (GC).** The general commercial district is intended to allow for medium to high intensity uses with a wide range of retail, wholesale commercial, entertainment, office, services, and professional uses. Development should be pedestrian-oriented, but is expected to be auto-accommodating as well. This district should be applied to medium to large sites adjacent to other commercial uses, office uses or higher density residential development. When located adjacent to single-family residential, vehicles using the commercial site should not have a direct impact on the entrances to the neighborhood, but pedestrian connections should be provided. GC sites should be located near freeways, along arterials, or at major intersections. This district is also intended to support the development of urban villages that offer a mixture of uses including retail, offices, services, entertainment, and commercial within the same site with connections between those uses. Development should provide a pleasant visual atmosphere for motorists, transit users, and pedestrians as well as for the other businesses located within the zoning district.
- ▶ **Shopping Center (SC).** The shopping center district is intended for medium to high intensity shopping centers with a local or regional market area. Developments within this district should include a wide choice of goods and services. The designation should be applied to medium to large sites near freeways, along arterials, and at major intersections. The SC zone should be adjacent to other commercial uses or higher density residential development. When located adjacent to single-family residential, vehicles using the commercial site should not have a direct impact on the entrances to the neighborhood. Development in this district typically involves integrated structures with multiple uses and tenants providing a broad range of goods and services. Development should incorporate pedestrian-friendly designs that include walkways interior to the project as well as connections to adjacent uses and neighborhoods, but should also be auto-accommodating.
- ▶ **Auto Commercial (AC).** The auto commercial district is characterized by automotive sales and services and related uses. This zone is intended to promote the unified grouping of auto-oriented uses in locations where they will be convenient to residents and visitors alike. The designation should be used on sites adjacent to other existing commercial or office uses and should be located near freeways, thoroughfares, and arterials. Uses should be of medium intensity and should be auto-accommodating.
- ▶ **Commercial Recreation (C-O).** The commercial recreation district is intended to provide an area for commercial uses normally considered to be recreation-oriented and for commercial uses associated with major recreation areas, such as aquatic centers, private and public sports facilities, and outdoor theaters. In addition to providing automobile access and parking, development within this district should provide access for pedestrians to and throughout the development. Development and uses should be low to medium intensity in nature and should serve as a buffer between residential neighborhoods or agriculture uses and more intense commercial development where possible.

Mixed-Use Districts

- ▶ **Village Center Mixed-Use (VCMU).** The village center mixed-use district is designated for development that occurs under a "village center" concept where it serves as a gathering location for area employees and residents. This zone is characterized by pedestrian-oriented development with a mix of uses and a focus on ground-floor commercial, retail, or office uses. Residential or office uses are allowed on upper floors. Development should prioritize vertical integration of uses and integrated public plazas with an emphasis on pedestrian-oriented design. This zone is ideally located along major roadways and/or transit corridors.
- ▶ **Residential Mixed-Use (RMU).** The residential mixed-use district designates areas for residential development that allow for the integration of compatible office, retail, and service uses. The predominant land use is residential, with commercial and office serving as supporting uses. This zone is characterized by pedestrian-oriented development, with vertical mixes of uses that feature ground-floor activity spaces, live-work units, or retail or office uses with residential uses on upper floors.

Office Districts

- ▶ **Business and Professional Office (BP).** The business and professional office district is intended for low to medium intensity office development located along thoroughfares, arterials, or collectors or near existing/planned public transit stops. This designation allows mixed-use development and high density development in conjunction with

nonresidential development. The designation should be applied to sites adjacent to other commercial uses or higher density residential development. The district is intended for office development and may include supporting services such as retail, service, or restaurant uses developed in conjunction with office use. Office development should be designed to be pedestrian-friendly, but should also be auto-accommodating. Development in this district should take advantage of existing or planned public transit opportunities.

- ▶ **Industrial-Office Park (MP).** The industrial-office park district is intended to provide well-designed and integrated development that supports a range of clean, light industrial or high-technology office and manufacturing uses and may include research, retail, service, and storage components or other supportive uses, such as dry cleaners, day care centers, restaurants, or medical clinics. The MP designation is intended for low to medium intensity uses located along freeways, thoroughfares, arterials, or collectors or near existing/planned public transit stops. The emphasis in this district is on development in a business park setting on sites adjacent to other industrial, commercial, or office uses or near higher density residential development. Development should be pedestrian-friendly with connections between and among different uses; however, it should also accommodate automobiles. Development in this district should take advantage of existing or planned public transit opportunities.

Industrial Districts

- ▶ **Light Industrial (LI).** The light industrial district is intended for low to medium intensity uses that involve the manufacture, fabrication, assembly, or processing of primarily finished materials. These activities, along with supportive and complementary uses, such as storage, shipping, retail, wholesale, or sales operations, are allowed in this district. Uses in this district should pose limited environmental impact in terms of noise, odors, traffic, hazardous materials, and other health and safety risks. In addition, the development standards are designed to promote attractive development that is compatible with surrounding development. Sites designated for LI uses should be located on medium to large sites along freeways, thoroughfares, arterials, or collectors adjacent to other office, industrial, commercial, or higher density residential uses. Residential uses of any kind are prohibited in this district with the exception of a caretaker residence. Development should be auto-accommodating with sufficient and clearly defined parking and loading areas.
- ▶ **Light Industrial/Flex (LI/FX).** The light industrial/flex district is intended to accommodate a diverse range of light industrial and office activities, and may serve as a buffer between heavy industrial areas and residential and other sensitive land uses. The LI/FX is generally located in areas providing adequate access for the movement of goods. The LI/FX designation allows flexibility in developing a greater extent of office uses and professional services than are allowed by right in the light industrial district.
- ▶ **Heavy Industrial (HI).** The heavy industrial district is intended to accommodate a broad range of manufacturing and industrial uses. Permitted activity may vary from medium to higher intensity uses that involve the manufacture, fabrication, assembly, or processing of raw and/or finished materials. Sites designated for heavy industrial uses should not be located near residential development. Furthermore, residential uses of any kind are prohibited in this district with the exception of a caretaker residence. Development standards are designed to limit noise, odors, traffic, hazardous materials, and other health and safety risks as well as ensure safe, functional, and environmentally sound development. Development should be auto-accommodating with sufficient and clearly defined parking and loading areas.

Public/Quasi-Public Districts

- ▶ **Park and Recreation (PR).** This district is designated for existing and future park facilities, including local, neighborhood, and community parks; public golf courses; sports facilities and complexes; and other recreational facilities that serve the outdoor recreational needs of the community.
- ▶ **Public Services (PS).** The public services district is applied to land and facilities owned or leased by public agencies, including the City of Elk Grove, the Elk Grove Unified School District and other public school districts, the Cosumnes Community Services District (with the exception of public parks), and other similar public agencies. This designation also allows other institutional uses such as higher education, private schools, cemeteries, or post offices.

- ▶ **Open Space Land Use (O).** The open space zoning district is applied to lands owned by public and private entities that have been reserved for open space uses such as landscape corridors, habitat mitigation, wetlands, wildlife habitat and corridors, lakes, trails, and similar uses. Some quasi-public uses such as recreation centers, nature centers, public golf courses, and joint use facilities may be permitted with approval of a conditional use permit.

SPECIAL PLANNING AREA (SPA)

The purpose of the special planning area (SPA) district is to designate areas for unique and imaginative planning standards and regulations not provided through the application of standard zoning districts. Allowed uses and development standards within the special planning area are those uses and standards listed uses in the adopted special planning area. The enabling legislation granting authority to prepare, process, adopt and implement a Special Planning Area (SPA) is defined by Title 23 of the City of Elk Grove Municipal Code (Title 23, Zoning). The intent of the SPA is to allow flexibility from the development standards and existing zoning. The SPAs are intended to promote housing development through the easing of these standards. SPAs function as a zoning district, similar to those listed above. An SPA may include one or more sub-areas or zones, allowing for more refined land planning. The existing and candidate sites are identified in the Southeast Policy Area Special Planning Area (SEPA SPA), Lent Ranch Marketplace SPA, and Old Town SPA.

Southeast Policy Area (SEPA) Special Planning Area

Designates areas for developments with a vertical mix of uses (e.g., buildings with retail or restaurants/ cafes on the ground floor with office or residential units above). The buildings will range in density and intensity with the high density of development focused around transit stops and major intersections. This designation allows for dwelling units ranging from 15.1 to 40.0 units per acre. Proposed housing sites E-7, E-8, E-9, E-10, E-11, E-12 are located within SEPA.

SEPA-HDR (15.1-30) Designates areas for developments with a vertical mix of uses (e.g., buildings with retail or restaurants/ cafes on the ground floor with office or residential units above). The buildings will range in density and intensity with the high density of development focused around transit stops and major intersections. This designation allows for dwelling units ranging from 15.1 to 40.0 units per acre.

Lent Ranch Marketplace Special Planning Area

The Lent Ranch Marketplace project is located on approximately 295 acres and is divided into five land uses consisting of a regional mall, community commercial, office and entertainment, visitor commercial, and multi-family residential uses. Proposed housing site E-1 is located in Lent Ranch Marketplace Special Planning Area.

Old Town Special Planning Area

A Special Planning Area was created in an effort to protect the historical character and ambiance of Old Town, zoned as OTSPA. The SPA defines the type of land uses that can come to Old Town and establishes site and architectural design standards and guidelines. The Old Town SPA was originally created by Sacramento County in 1985. A substantial update was completed by the City in August 2005. Updates occurred in 2010 and 2014. Three minor amendments were completed in 2017, 2018, and 2019. An update to the Old Town SPA is currently in process. Proposed housing site C-19 is located within the OTSPA.

SPECIFIC PLANS

The purpose of a specific plan is to provide a vehicle for implementing the City's General Plan on an area-specific basis. Specific Plans may provide for comprehensive land planning for a given area, and address topics including phasing, financing, and overall master planning for infrastructure to serve the area. There is one specific plan in the City – the Laguna Ridge Specific Plan.

Laguna Ridge Specific Plan

The Laguna Ridge Specific Plan (LRSP) encompasses approximately 1,900 acres and is located in the southwestern portion of the City, west of Highway 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. The LRSP has an overall capacity 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. The LRSP establishes standards to regulate development, including standards for land use, infrastructure, and resource management. Proposed housing sites E-3, E-5, E-6, E-13, C-24 are located within the LRSP.

3.10.2 Environmental Setting

EXISTING CONDITIONS

The City of Elk Grove encompasses approximately 26,980 acres in southern Sacramento County. Existing land uses in the City are predominately single-family residential, which is generally distributed throughout the developed areas of the City. Other land uses include multi-family, commercial, office, recreational, and public uses. Rural and open space land includes annual grassland pasture, oak woodland, and riparian vegetation. Riparian vegetation is found in the Stone Lakes National Wildlife Refuge and along the Cosumnes River, the Sacramento River, and associated tributaries (e.g., Elk Grove Creek, Deer Creek, Morrison Creek, and Whitehouse Creek).

As described in Chapter 2, the Project would update the adequate sties to accommodate the City's 2021-2029 Regional Housing Needs Allocation (RHNA). The City currently has an adequate number of zoned residential sites to meet RHNA requirements for the above moderate income group. It has identified 43 possible housing sites (18 existing sites and 25 new candidate sites) located within City limits that could accommodate housing to meet the RHNA very low, low, and moderate income groups (see Figure 2-2).

EXISTING AND CANDIDATE SITES

Table 2-2 in Chapter 2, "Project Description," identifies the existing and candidate sites, and provides information related to their general location, existing zoning and General Plan land use designation, and proposed zoning and General Plan land use designation. The 25 candidate sites, sites C-1 through C-25, would require rezoning. Existing and candidate sites are depicted in Figure 2-2.

POPULATION AND POPULATION TRENDS

The population of the City was estimated to be 176,154 for 2020. The City has an estimated development capacity of 332,254 residents (City of Elk Grove 2019:Table 3-2). This figure reflects the maximum possible population, as determined by the number of residential units possible at the different maximum densities allowed for each land use designation and the amount of land area within those designations. However, the General Plan does not specify a specific date for development potential, and states that the development capacity is unlikely to be reached because it would require that every lot in Elk Grove be developed to its maximum potential (City of Elk Grove 2019:3-20).

As shown in Table 3.10-1, population rates have fluctuated over the past 30 years, but continue to increase over time.

Table 3.10-1 City of Elk Grove Population Trends

Year	Population	Change	Average Annual Percentage Change
1990 ¹	42,626	N/A	N/A
2000 ¹	72,665	30,039	7.0
2005 ²	110,843	38,178	10.5
2010	153,015	42,172	7.6
2015	164,997	11,982	1.6
2018	171,774	6,777	4.1
2019	173,170	1,396	0.8
2020	176,154	2,984	1.7

¹ Prior to incorporation in 2000, the City was an unincorporated community in Sacramento County. The City was not recognized as a governmental entity in terms of census data, and it did not have legally prescribed boundaries, powers, or functions. Because data for the 2000 US Census was collected on April 1, 2000, and City incorporation occurred on July 1, 2000, the Elk Grove data for the 2000 Census was for the Elk Grove Census Designated Place (CDP), not the City's subsequent incorporated boundaries. Thus, data for 1990 and 2000 is derived from the City of Elk Grove General Plan Update EIR (City of Elk Grove 2018).

² Population change between 2000 and 2005 includes both new development in the City and the annexation of Laguna West in 2004, which was substantially built out at the time of annexation.

Sources: City of Elk Grove 2018; DOF 2012 ;DOF 2020

HOUSING CHARACTERISTICS

As of January 1, 2020, there were a total of 55,438 housing units in the City, consisting of 48,234 single detached homes, 1,536 single attached homes, and 5,379 multi-unit homes (greater than two units). The City is currently experiencing a 3.2 percent housing unit vacancy rate (DOF 2020). The City has identified the average number of persons per household as 3.223.

Table 3.10-2 summarizes the increase in the City's housing stock between 2000 and 2020. The number of housing units has increased from 24,310 in 2000 to 50,634 in 2010, an average annual increase of 10.8 percent. Between 2010 and 2020, the housing stock in the City has increased by 9.5 percent.

Table 3.10-2 Housing Unit Growth

Year	Housing Units	Annual Average Change
2000	24,310	—
2010 ¹	50,634	10.8%
2020	55,438	9.5%

¹ The increase in housing units between 2000 and 2010 includes both new development in the City and the annexation of Laguna West in 2004, which was substantially built out at the time of annexation.

Source: DOF 2020

3.10.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following land use impact analysis is based on a review of the City's General Plan EIR as compared to the proposed amendments under the Housing Element and Safety Element Update.

The evaluation of potential land use and planning impacts is based on review of documents pertaining to the existing and candidate sites associated with the Housing Element Update and policy updates as part of the Safety Element Update. As part of this review, local planning documents and land use plans were reviewed to determine whether

implementation of the project would impede or conflict with those plans such that an environmental impact would occur. In determining the level of significance, this analysis assumes that the Housing Element and Safety Element Update would comply with relevant state regulations and local General Plan policies, where feasible.

To evaluate the potential impacts on population and housing, the City-wide population and housing levels were compared to population and housing anticipated under buildout of Housing Element Update. This examination of population, employment, and housing conditions is based on information obtained from review of the plans for the project and review of available population, employment, and housing projections from the City, SACOG, the U.S. Census Bureau, and the California Department of Finance (DOF). In determining the level of significance, the analysis assumes compliance with relevant federal and state laws, regulations, and ordinances.

THRESHOLDS OF SIGNIFICANCE

A land-use impact is considered significant if implementation of the Project would do any of the following:

- ▶ physically divide an established community; and/or
- ▶ cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

A population, employment, and housing impact is considered significant if implementation of the Project would do any of the following:

- ▶ induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); and/or
- ▶ displace substantial numbers of existing people or homes, necessitating the construction of replacement housing elsewhere.

ISSUES NOT DISCUSSED FURTHER

Physically Divide an Established Community

The Housing Element Update would change the zoning to establish parameters for future residential development and provide opportunities for purposeful expansion that are aligned with community desires, as well as regional growth objectives and State law. Increased zoning densities would increase the potential number of dwelling units in the City, but would not create structures, such as roadways, that could physically divide an established community. The Safety Element Update concerns the need for evacuation routes, but would not create structures that could physically divide an established community. Thus, the Project would have no impacts related to physical division of an established community and this topic is not addressed further in this SEIR.

Displace People or Homes

The purpose of the Housing Element Update is to identify and analyze existing and projected housing needs, as well as establish goals, policies, and actions to address these housing needs, including adequate provisioning of affordable and special-needs (e.g., agricultural workers, homeless people, seniors, single-parent households, large families, and persons with disabilities) housing. It would not remove housing or otherwise displace substantial numbers of people or homes. As the Safety Element Update concerns evacuation routes, implementation would not displace people or homes. Thus, the Project would have no impact related to the displacement of a substantial number of people or homes and this issue is not discussed further in this SEIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: Induce Substantial Population Growth

The Housing Element Update would accommodate up to 2,722 net new dwelling units, which would accommodate approximately 8,765 people (based on 3.22 persons per household). This growth would be within the projections generally assumed under the City's General Plan and regional planning efforts completed by SACOG. This impact would be **less than significant**.

Table 2-2 and Figure 2-2 in Chapter 2, "Project Description," indicate the location and size of existing and candidate sites. While no specific development projects are proposed at this time, subsequent multi-family development on any or all of the existing and candidate sites would be not considered additional population or housing growth above that projected in the General Plan and analyzed in the General Plan EIR. The Housing Element Update does not require new construction or expansion of existing roadway infrastructure (e.g., new roads); however, infrastructure improvements to provide utilities to the existing and candidate sites would be necessary. Necessary infrastructure improvements would be limited to those necessary to serve projects associated with the Housing Element Update and would not be sized to accommodate additional population growth beyond the growth disclosed herein.

The Housing Element Update would accommodate up to 2,722 net new dwelling units, which would accommodate approximately 8,765 people (based on 3.22 persons per household). Above the existing conditions, the Housing Element Update would result in a potential total of 58,357 dwelling units and a population level of 184,552. The General Plan projects that at buildout (in 30 years or more), the City and its study areas would accommodate 332,254 people within 102,865 dwelling units. In addition, SACOG's 2036 projections for Elk Grove estimate that the City will have a population of 201,197 people accommodating 65,367 dwelling units (City of Elk Grove 2018:3.0-2, SACOG 2012). The population increase and development potential associated with the Housing Element Update and SACOG projections would be included within the relevant estimates and thus generally consistent with City and regional growth assumptions.

The increased population levels associated with the project would be consistent with regional growth projections for the City and would meet SACOG projected housing needs through 2029. Therefore, the project would not induce substantial population growth above that which is already planned for the City. This would be a **less than significant**.

Mitigation Measures

No mitigation is required.

Impact 3.10-2: Conflicts with Applicable Land Use Plans, Policies, or Regulations

The Project would update the Housing Element and Safety Element of the General Plan, amend the General Plan land use map, amend the Laguna Ridge Specific Plan, and revise the Zoning Code. These amendments would ensure compliance with State law requirements for these elements and meet RHNA allocations for the City that were established by SACOG. The Project is consistent with General Plan policies related to environmental protections associated with land use, including those identified under Regulatory Setting that address the amount and location of growth, allowed uses, development densities and intensities, and project design. This impact would be **less than significant**.

As set forth by state law, the General Plan serves as the primary planning document for the City and all subordinate documents and plans are required to be consistent with the General Plan. The Project would update the Housing Element of the General Plan and revise the Zoning Code, as described in Chapter 2, "Project Description." The majority of Elk Grove's housing needs would be accommodated on sites currently designated for housing development; however, there is a shortfall of sites to accommodate the City's full housing need. The majority of actions in the Housing Element Update commit the City to continuing to encourage the provision of affordable housing and housing appropriate for special needs groups and to encourage the maintenance of existing housing. The programs included in the Housing Element Update would not result in development that is inconsistent with the

growth allowed under the City's General Plan. Implementation of the proposed Housing Element Update does not, in and of itself, directly cause new housing to be constructed in the City. However, rezoning would result in land use changes that could have an effect on the environment.

Elk Grove's total RHNA for the 2021–2029 planning period is 8,263 units, allocated to specific income groups. The City currently has an adequate number of zoned residential sites to meet RHNA requirements for the moderate and above moderate income groups. It has identified 43 possible housing sites (18 existing sites and 25 new candidate sites) located within City limits that could accommodate housing to meet the RHNA very low and low income levels. The 25 candidate sites, sites C-1 through C-25, would require rezoning, which covers 122.03 acres. Implementation of the Housing Element Update could accommodate up to 2,722 units over the adopted General Plan land use designations. All 43 of the proposed housing sites are designated for urban or residential uses in the adopted General Plan; none of the existing and candidate sites are designated for conservation or preservation uses.

A main objective of the Housing Element is to meet the City's housing needs, including accommodating a variety of housing types and densities. Chapter 2.0, "Project Description," identifies the proposed actions that would assist the City in addressing its housing needs. Implementation of the Housing Element and development of new housing in Elk Grove would, for the most part, be in or adjacent to urbanized areas and would occur on properties that are currently designated in the General Plan for urbanization. The Housing Element Update would support the need to accommodate RHNA in the City of Elk Grove (Goal H-1); the provision of adequate housing for lower-income households and special needs groups (Goal H-2); remove constraints to the maintenance, improvement, and development of housing (Goal H-3); maintain and improve affordable housing conditions (Goal H-4); provide housing opportunities for all persons, regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability (Goal H-5); and preserve assisted (subsidized) housing developments for lower-income households (Goal H-6). The Land Use Element encourages affordable housing to be located in close proximity to services, shopping, and public transportation (Policies LU-1-3 and LU-3-7).

The candidate sites could be zoned to allow high density residential development and would allow multi-family uses under the General Plan land use designations. The housing sites have been identified as potential sites that could be used to address the remaining need for housing within the City in areas designated for urban land uses under the General Plan. The existing and candidate housing sites are generally located in areas that would provide access to services, shopping, and public transportation, while accommodating the City's 2021-2029 RHNA. Thus, the planned housing sites are consistent with the General Plan policies discussed above.

Subsequent development that is consistent with the Housing Element Update, including the development of the existing and candidate housing sites would be required to be consistent with the General Plan, including policies and programs adopted to address environmental impacts. These subsequent projects would be reviewed for consistency with the City's development standards set forth in the Municipal Code and Design Guidelines as part of the design review process. The Project would not remove or modify any policies or measures from the General Plan that are intended for environmental protection and would not conflict with any General Plan policies or measures that are intended for environmental protection.

The Safety Element Update addresses evacuation routes and identifies residential development in hazards areas with limited access. This update is required by AB 747 (Levine) and SB 99 (Nielsen) and would not conflict with any adopted plans, policies, or regulations.

The Project could result in potential adverse environmental impacts, including to traffic, noise, water quality, biological resources, drainage and water quality, air quality, hazards, geology/soils, and cultural resources. Impacts to these resources, including consistency with applicable plans, policies, and regulations, are evaluated in the appropriate sections of this SEIR. The Project would result in **less-than-significant** impacts related to conflicts with applicable land use plans, policies, or regulations.

Mitigation Measures

No mitigation is required for this impact.

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3.11 NOISE AND VIBRATION

This section includes a summary of applicable regulations related to noise and vibration, a description of ambient-noise conditions, and an analysis of potential short-term construction and long-term operational-source noise impacts associated with the Elk Grove Housing Element and Safety Element Update (Project).

A comment letter received in response to the notice of preparation (NOP) requested that the noise and vibration analysis assume windows and doors to be open instead of closed. The methodology used to conduct traffic noise modeling for the Project is intended to analyze exterior noise levels at the outdoor activity area of the land use. This methodology is based on the City's traffic noise standards provided in Table 8-3, "Maximum Allowable Noise Exposure, Transportation Noise Sources," in the Services Health, and Safety element of the City's General Plan. The traffic noise modeling does not analyze interior noise levels from traffic and, therefore, does not make assumptions about whether doors and windows are opened or closed.

3.11.1 Regulatory Setting

FEDERAL

U.S. Environmental Protection Agency Office of Noise Abatement and Control

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

Federal Transit Administration

To address the human response to ground vibration, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 3.11-1.

Table 3.11-1 Ground-Borne Vibration (GBV) Impact Criteria for General Assessment

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
<i>Category 1:</i> Buildings where vibration would interfere with interior operations.	65 ⁴	65 ⁴	65 ⁴
<i>Category 2:</i> Residences and buildings where people normally sleep.	72	75	80
<i>Category 3:</i> Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB = vibration decibels referenced to 1 μ inch/second and based on the root mean square (RMS) velocity amplitude.

¹ "Frequent Events" is defined as more than 70 vibration events of the same source per day.

² "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

³ "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

⁴ This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018.

STATE

California Building Code Sound Transmission Standards

Noise within habitable units that is attributable to external sources is regulated by the California Building Standards codified in the California Code of Regulations, Title 24, Part 2, Section 1207. These standards are enforceable at the time of construction or during occupancy and apply to habitable units with common interior walls, partitions, and ceilings or those adjacent to public areas, such as halls, corridors, stairways, and service areas. Under these standards, the interior noise levels attributable to exterior sources shall not exceed 45 decibels (dB) in any habitable room. The noise metrics used to measure these levels can be day-night average sound level (L_{dn}) or Community Noise Equivalent Level (CNEL), consistent with the local general plan. An acoustical analysis documenting compliance with the interior sound level standards shall be prepared for structures containing habitable rooms. Under PRC Section 25402.1(g), all cities and counties in the State are required to enforce the adopted California Building Code, including these standards for noise in interior environments.

California General Plan Guidelines

The State of California General Plan Guidelines 2017, published by the California Governor's Office of Planning and Research (OPR) (2017), provides guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many local jurisdictions, these guidelines are used to derive local noise standards and guidance. Citing EPA materials and the State Sound Transmissions Control Standards, the State's general plan guidelines recommend interior and exterior CNEL of 45 and 60 decibels (dB) for residential units, respectively (OPR 2017:378).

California Department of Transportation

In 2013, Caltrans published the Transportation and Construction Vibration Manual (Caltrans 2020). The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 3.11-2 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 3.11-2 Caltrans Recommendations Regarding Levels of Vibration Exposure

PPV (in/sec)	Effect on Buildings
0.4-0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006-0.019	Vibration unlikely to cause damage of any type

Notes: PPV= Peak Particle Velocity; in/sec = inches per second

Source: Caltrans 2020.

LOCAL

City of Elk Grove General Plan

Chapter 8 of the *City of Elk Grove General Plan* (City of Elk Grove 2019) includes noise policies that are applicable to the Project:

- ▶ **Policy N-1-1:** New development of the uses listed in Table 8-3 [presented as Table 3.11-3 of this SEIR] shall conform with the noise levels contained in the table. All indoor and outdoor areas shall be located, constructed, and/or shielded from noise sources in order to achieve compliance with the City's noise standards.

- ▶ **Policy N-1-2:** Where noise mitigation measures are required to achieve the standards of Tables 8-3 and 8-4 [presented as Tables 3.11-3 and 3.11-4, respectively, in this SEIR], the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures, including the use of distance from noise sources, have been integrated into the project.
- ▶ **Policy N-1-4:** Protect noise-sensitive land uses, identified in Table 8-3 [presented as Table 3.11-3 in this SEIR], from noise impacts.
- ▶ **Policy N-1-8:** For development projects that are subject to discretionary review, the City may require applicants to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses.

Table 3.11-3 Maximum Allowable Noise Exposure, Transportation Noise Sources

Land Use	Outdoor Activity Areas ^{1,2} L _{dn}	Interior Spaces	
		L _{dn}	L _{eq} ³
Residential	60 ^{4,9}	45	-
Residential subject to noise from railroad tracks, aircraft overflights, or similar noise sources which produce clearly identifiable, discrete noise events (the passing of a single train, as opposed to relatively steady noise sources as roadways)	60 ^{d,7}	40 ⁶	-
Transient Lodging	60 ^{5,7}	45	-
Hospitals, Nursing Homes	60 ^{4,7}	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	60 ^{4,7}	-	40
Office Buildings	-	-	45
Schools, Libraries, Museums	-	-	45

¹ Where the location of outdoor activity areas is unknown, the exterior noise level standards shall be applied to the property line of the receiving land use. Where it is not practical to mitigate exterior noise levels at patios or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.

² Transportation projects subject to California Department of Transportation review or approval shall comply with the Federal Highway Administration noise standards for evaluation and abatement of noise impacts.

³ As determined for a typical worst-case hour during periods of use.

⁴ Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn} or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB L_{dn} may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

⁵ In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.

⁶ The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.

⁷ In cases where the existing ambient noise level exceeds 60 dB, the maximum allowable project-related permanent increase in ambient noise levels shall be 3 dB L_{dn}.

Source: City of Elk Grove 2019:8-57

- ▶ **Policy N-1-9:** For projects involving the use of major vibration-generating equipment (e.g., pile drivers, vibratory rollers) that could generate groundborne vibration levels in excess of 0.2 in/sec ppv, the City may require a project-specific vibration impact assessment to analyze potential groundborne vibrational impacts and may require measures to reduce ground vibration levels.
- ▶ **Policy N-2-1:** Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 8-4 [presented as Table 3.11-4 in this SEIR], as measured immediately within the property line of lands designated for noise-sensitive uses.
- ▶ **Policy N-2-2:** The following criteria shall be used as CEQA significance thresholds for transportation and stationary noise sources:

- Where existing ambient noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in noise levels shall be considered significant; and
 - Where existing ambient noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in noise levels shall be considered significant; and
 - Where existing ambient noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +1.5 dB L_{dn} increase in noise levels shall be considered significant. Public roadway improvements to alleviate traffic congestion and safety hazards shall utilize FHWA [Federal Highway Administration] noise standards to allow a reasonable dollar threshold per dwelling to be used in the evaluation and abatement of impacts.
 - The standards outlined in Table 8-4 [presented as Table 3.11-4 in this EIR] shall not apply to public projects to alleviate traffic congestion and safety hazards.
- **Policy N-2-4:** Where sound walls or noise barriers are constructed, strongly encourage and consider requiring a combination of berms and walls to reduce the apparent height of the wall and produce a more aesthetically appealing streetscape.

Table 3.11-4 Noise Level Performance Standards for New Projects Affected by or Including Non-Transportation Noise Sources*

Performance Standards for Stationary Sources	Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Performance Standards for Typical Stationary Noise Sources ¹	Hourly L _{eq} , dB	55 ^{3,4}	45 ^{3,4}
Performance Standards for Stationary Noise Sources Which Are Tonal, Impulsive, Repetitive, or Consist Primarily of Speech or Music ²	Hourly L _{eq} , dB	50 ^{3,4}	40 ^{3,4}

* Applies to noise-sensitive land uses only.

- ¹ These standards will apply generally to noise sources that are not tonal, impulsive, or repetitive in nature. Typical noise sources in this category would include HVAC systems, cooling towers, fans, and blowers.
- ² These standards apply to noises which are tonal in nature, impulsive, repetitive, or which consist primarily of speech or music (e.g., humming sounds, outdoor speaker systems). Typical noise sources in this category include pile drivers, drive-through speaker boxes, punch presses, steam valves, and transformer stations. HVAC/pool equipment are exempt from these standards.
- ³ These noise levels do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwelling). HVAC/pool equipment are exempt from these standards.
- ⁴ The City may impose noise level standards which are more or less restrictive based upon determination of existing low or high ambient noise levels.

Source: City of Elk Grove 2019:8-58

City of Elk Grove Municipal Code

Chapter 6.32 of the Elk Grove Municipal Code addresses noise generation in the City. Section 6.32.080 of the Elk Grove Municipal Code contains exterior noise standards for sensitive receptors, outlined in Table 6.32-1 (presented as Table 3.11-5 in this SEIR). The metric of these standards is L_{eq} because they are identical to the noise level performance standards included in the General Plan presented in Table 3.11-4.

Table 3.11-5 Exterior Noise Standards for Sensitive Receptors¹

	7:00 am to 10:00 pm	10:00 pm to 7:00 am
Stationary noise sources, generally	55 dB	45 dB
Stationary noise sources which are tonal, impulsive, repetitive, or consist primarily of speech or music	50 dB	40 dB

Source: Section 6.32.080 of the Elk Grove Municipal Code

¹ Sensitive receptors are defined as receiving premises used for residential purposes and for nonresidential purposes that are sensitive to noise, including, but not limited to, residential dwellings, schools, hospitals, hotels, and community care facilities.

In the case that the measured ambient noise level exceeds the noise levels identified in Table 6.32-1 (presented as Table 3.11-5 in this SEIR), a maximum increase of 5-dBA is allowed where the ambient noise level is above that shown in the table but less than 60 dB. Where the ambient noise level is between sixty (60) dB and sixty-five (65) dB, inclusive, a maximum increase of three (3) dB above the ambient noise level is allowed. Finally, where the ambient noise level is greater than sixty-five (65) dB, a maximum increase of one and one-half (1.5) dB above the ambient noise level is allowed.

Section 6.32.100 of the Elk Grove Municipal Code provides the several exemptions to all noise regulations specified within Chapter 6.32.100 of the Code. Relevant to the Project, the exemption includes:

- ▶ noise sources associated with construction, repair, remodeling, demolition, paving, or grading of any real property, provided said activities only occur between the hours of 7:00 a.m. and 7:00 p.m. when located in close proximity to residential uses. Noise associated with these activities not located in close proximity to residential uses may occur between the hours of 6:00 a.m. and 8:00 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 7:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner;
- ▶ noise sources associated with the authorized collection of solid waste (e.g., refuse and garbage); and
- ▶ noise sources associated with the minor maintenance and operation of residential real property, including but not limited to pool equipment and heating and air conditioning units. Additionally, yard maintenance equipment and other power tools may be allowed provided the activities take place between the hours of 7:00 a.m. and 10:00 p.m.

City of Elk Grove Construction Specifications Manual

The Elk Grove Construction Specifications Manual (City of Elk Grove 2020) includes the following standards that are applicable to the Project and noise:

- ▶ **Section 7-8.01: Allowable Times and Hours of Work.** Unless otherwise noted in the Special Provisions or approved by the City, no work shall be done between the hours of 6 p.m. and 7 a.m., or on Saturdays, Sundays, or legal holidays. Unless otherwise noted in the Special Provisions or approved by the City, no lane of traffic shall be closed to the public during the peak hours of 7:00 a.m. to 8:30 a.m. and 3:00 p.m. to 6:00 p.m., except as necessary for the proper care and protection of work already performed or in case of an emergency repair as defined below. Exceptions are allowed only with the City's written permission.
- ▶ **Section 7-8.02: Off-Period Work.** A written request to work between 6 p.m. and 7 a.m. or on Saturdays, Sundays, or legal holidays, or to close a lane of traffic during peak hours must be submitted at least two (2) Working Days in advance of the intended work. The City will evaluate the Contractor's request to determine if there is a benefit to the City, a nuisance or a hazard to the public, the project, or the area surrounding the site, and if the Contractor should pay any City overtime costs related to the off-period work. The City may place conditions on any approval of off-period work based on this analysis.
- ▶ **Section 10-6: Noise Control.** The Contractor shall comply with all local noise control and noise level rules, regulations, and ordinances that apply to the Work. The Special Provisions may contain specific or additional requirements. Internal combustion engines used for any purpose on the Work must be equipped with a muffler recommended by the manufacturer.

3.11.2 Environmental Setting

ACOUSTIC FUNDAMENTALS

Prior to discussing the noise setting for the Project, background information about sound, noise, vibration, and common noise descriptors is needed to provide context and a better understanding of the technical terms referenced throughout this section.

Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. A logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB). Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an “A-weighted” sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. All sound levels discussed in this section are expressed in A-weighted decibels. Table 3.11-6 describes typical A-weighted noise levels for various noise sources.

Table 3.11-6 Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013: Table 2-5

Human Response to Changes in Noise Levels

The doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013:2-18). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second (in/sec) or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings [Federal Transit Agency (FTA) 2006:7-5, Caltrans 2013:6].

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2018:7-4; Caltrans 2020:7). This is based on a reference value of 1 micro inch per second.

The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2018:7-8; Caltrans 2020:27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2018:7-5).

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment.

Table 3.11-7 summarizes the general human response to different ground vibration-velocity levels.

Table 3.11-7 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 μ inch/second and based on the root mean square (RMS) velocity amplitude.

Source: FTA 2018:7-8

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which a noise level decreases with distance depends on four factors.

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Sound levels can be increased over large distances (e.g., more than 500 feet) from the source because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013:2-41; FTA 2018:5-6, 6-25). Barriers higher than the line of sight provide increased noise reduction (FTA 2018:2-12). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2018:2-11).

EXISTING NOISE ENVIRONMENT

Existing Noise- and Vibration-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential uses are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because these land uses are places of rest and sleep for City residents.

Additionally, the City of Elk Grove defines sensitive receptors as "receiving premises used for residential purposes and for nonresidential purposes that are sensitive to noise, including, but not limited to, residential dwellings, schools, hospitals, hotels, and community care facilities as those uses are defined in [Elk Grove Municipal Code] Title 23 (Zoning)." Additional land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The City includes many of these types of noise-sensitive land uses including residential, hotel/motel, parks and recreational facilities, religious institutions, and schools. These land uses are given priority in assessing and addressing noise exposure given the noise-sensitive nature of the land uses and activities occurring in these locations.

Existing Noise Sources

The noise environment in the Planning Area is defined primarily by vehicular traffic on State Route (SR) 99, Interstate 5 (I-5), and local roadways. To a lesser extent, railroad traffic, occasional aircraft overflights, nearby agricultural activities, and landscape maintenance activities at residential and commercial uses also contribute on an intermittent basis to ambient noise levels. Industrial uses in the City are located primarily in the south-central and northwest portions of the City and are collocated adjacent to the two existing rail lines which run north-south through the City.

Roadway Noise Sources

Noise levels along roadways are affected by several traffic characteristics, including average daily traffic (ADT) volumes, the vehicle mix, roadway conditions, vehicle speed, and the gradient of the roadway. The major east-west roadways in the City are Laguna Boulevard, Elk Grove Boulevard, and Calvine Road. The major north-south roadways are Grant Line Road, Bond Road, Elk Grove Florin Road, Bruceville Road, and Franklin Boulevard. SR 99 runs north-south through the City, running adjacent to predominantly mixed-use, commercial, and office land uses. In general, these roadways abut commercial or residential land uses with some sound-reducing measures (e.g., sound walls, setbacks from roadways) incorporated into site design. I-5 runs north-south along the western border of the City's boundaries. Currently, residential, commercial, and residential land uses are located adjacent to I-5, although a significant buffer distance (approximately 160 feet) exists between City boundaries and the nearest travel lane on I-5.

Land uses adjacent to I-5 also include some sound-reducing measures to address traffic noise exposure for nearby noise-sensitive land uses.

Noise levels associated with existing vehicle traffic on major roadways within the City are included in the City's General Plan EIR which was certified in January 2019 (City of Elk Grove 2018) and serve as the existing traffic noise levels in this analysis. Because traffic volumes and subsequent traffic noise levels in the City are affected primarily by the addition of new development projects in the City, difference in traffic noise levels between 2018 and the date of publication of this SEIR are not considered to have increased substantially. Therefore, the General Plan EIR baseline for traffic noise levels still serves as an appropriate baseline for this analysis.

Table 3.11-8 depicts predicted existing average-daily traffic noise levels (dBA CNEL/Ldn) at 50 feet from the near travel-lane centerline for major roadway segments adjacent to the candidate housing sites identified as part of the Project. The extent to which nearby land uses are affected by existing traffic noise depends on multiple factors, including their respective proximity to the roadways, shielding provided by intervening terrain and structures, and their individual sensitivity to noise.

Table 3.11-8 Existing Traffic Noise Levels

Roadway	From	To	dBA L _{dn} at 50 Feet from Near-Travel-Lane Centerline ¹
			Existing
Bond Rd	SR 99	E Stockton Blvd	70.6
	E Stockton Blvd	Elk Crest Dr	72.0
	Waterman Rd	Bradshaw Rd	70.4
Bradshaw Rd	Calvine Rd	Sheldon Rd	67.4
Bruceville Rd	Big Horn Blvd	Laguna Blvd	69.2
Calvine Rd	Power Inn Rd	Elk Grove Florin Rd	71.7
	Elk Grove Florin Rd	Waterman Rd	70.6
	Waterman Rd	Bradshaw Rd	69.2
Elk Grove Blvd	I-5	Harbour Point Dr	68.9
	Harbour Point Dr	Four Winds Dr	70.3
	Franklin Blvd	Bruceville Rd	72.0
Elk Grove Blvd	Elk Grove Florin Rd	Waterman Rd	63.8
Laguna Blvd	SR 99	Franklin Blvd	70.8
	Big Horn Blvd	Laguna Springs Dr	71.2
	Laguna Springs Dr	SR 99	71.1
Power Inn Rd	Calvine Rd	Sheldon Rd	65.8
Sheldon Rd	SR 99	E. Stockton Blvd	70.8
	E. Stockton Blvd	Power Inn Rd	71.0
Waterman Rd	Sheldon Rd	Bond Rd	66.2
	Bond Rd	Elk Grove Blvd	70.7
	Elk Grove Blvd	Grant Line Rd	66.9
Whitelock Pkwy	Big Horn Blvd	Lotz Pkwy	62.3

Source: City of Elk Grove 2018

Rail Noise

Two active rail lines are present in the City – one in the central portion and one in the western portion. The central line runs north–south and enters the City at State Route 99. This rail line is adjacent to residential and industrial land uses in the City and currently has an average of 32 daily pass-through train trips. The line is operated by Union Pacific Railroad (UPRR) and bisects some of the City’s major arterials, including Grant Line Road, Elk Grove Boulevard, Bond Road, Elk Grove-Florin Road, Sheldon Road, and Calvine Road. This rail line also serves Amtrak passenger trains with an average of four daily passenger train trips; this service has since been converted to thruway bus service due to reduced demand caused by the COVID-19 pandemic. Except for Grant Line Road, these crossings occur at grade.

The UPRR line in the western portion of the Planning Area runs north–south and bisects Franklin Boulevard, Elk Grove Boulevard, and Laguna Boulevard. This line is located adjacent to residential and industrial land uses in the City. The crossings at Elk Grove Boulevard and Laguna Boulevard are grade-separated.

The City has established a series of quiet zones for many of the at-grade crossings to limit noise exposure to residents from train warning horns. These quiet zones include the at-grade crossings which intersect with Calvine Road, Sheldon Road, Elk Grove-Florin Road, Bond Road, Elk Grove Boulevard, Franklin Boulevard, and Bilby Road. While railroads are directed to not sound warning horns at these crossings, warning horns would still be used in emergency situations per Federal Railroad Administration regulations and UPRR operating rules. Where the rail lines are adjacent to residential uses, sound walls have been erected to reduce noise exposure levels.

Aircraft Noise

There is one public airport and two private airports within 3 miles of the Planning Area. They are Franklin Field, which is public, and Sky Way Estates Airport and Borges-Clarksburg Airport, which are private. Sacramento Executive Airport, a public use airport, is approximately 6 miles north-northwest of the City, and Sacramento International Airport, a high-traffic airport, is approximately 20 miles north-northwest. Franklin Field, Sacramento Executive, Sacramento International airport noise contours do not extend into the City of Elk Grove (SACOG 1992, SACOG 1999). The Borges-Clarksburg Airport had about 3,000 general aviation operations in 2001, with 18 aircraft based in the field (SkyVector 2020). Operation data was not located for Sky Way Estates Airport, but only 8 aircraft are based in the field (Airnav 2020). The low number of operations and number of aircraft based at these two fields, and their distance from the City of Elk Grove, indicates that noise generation within the City from these airports is minimal.

Construction Noise Sources

Construction activities are a regular and ongoing source of noise throughout the City. The noise levels generated by construction activities are generally isolated to the vicinity of a construction site and occur during daytime hours in accordance with City regulations. Construction activities also occur for relatively short-term periods of a few weeks to several months; upon completion of construction activity, noise exposure ceases. Table 3.11-9 illustrates noise levels for common construction equipment and activities at 50 feet. According to the EPA, construction noise levels are highest for pile-driving activities and can reach as high as 107 dBA.

Table 3.11-9 Noise Ranges of Typical Construction Equipment

Construction Equipment	Noise Levels at dBA Leq at 50 feet
Front Loader	72–86
Truck	82–95
Crane (movable)	75–88
Crane (derrick)	86–89
Vibrator	68–82
Saw	72–82
Pneumatic Impact Equipment	83–88
Pile Driving (peaks)	95–107
Jackhammer	81–98

Construction Equipment	Noise Levels at dBA Leq at 50 feet
Pump	68–72
Generator	71–83
Compressor	75–87
Concrete Mixer	75–88
Concrete Pump	81–85
Backhoe	73–95
Tractor	77–98
Scraper/Grader	80–93
Paver	85–88

Source: EPA 1971

Industrial Noise Sources

The largest concentrations of industrial land in the City are in the north-central, northwest, and south-central sections. Current industrial uses in the City include heavy industrial and light industrial/warehouse. Generally, heavy industrial uses are located away from noise-sensitive uses and near other noise-generating land uses such as major roadways and/or railroad lines. Primary noise sources associated with industrial uses include motors, agitators, forklifts, air compressors, and heavy- and medium-duty trucks with specific equipment use largely based on the type of industrial operation or use occurring at specific locations.

Agricultural Activities

Noise levels associated with agricultural activities can vary substantially depending on the type of activities being conducted and equipment used. Due to the seasonal nature of agricultural activities, there are often extended periods of time when no noise is generated on properties that are actively being farmed, followed by short-term periods of more intensive equipment use and associated noise levels. However, such noise levels are typically distributed over a large area and prolonged noise levels at individual nearby receptors would not be anticipated for most activities. In addition, given that agricultural activities typically occur during the daytime hours, noise generated by nearby agricultural activities are often largely masked by vehicle traffic noise along nearby roadways (i.e., Kammerer Road, Bruceville Road, Promenade Parkway, and SR 99).

Ambient Noise Levels

As part of the evaluation of Elk Grove's General Plan Update, long- and short-term noise measurements were taken in 2015 to characterize noise conditions across the Planning Area. The General Plan Update Draft EIR, released in July 2018, explained that the 2015 measurements were adequate at the time because noise sources that would substantially alter ambient noise levels in the Planning Area would be associated primarily with traffic volumes on roadways throughout the City, but that these generally do not drastically change from year to year. Furthermore, these measurements are used to provide a representative idea of the variation in noise levels across the planning area for the purposes of this analysis. As a result, those noise measurements are still relevant for this analysis. A summary of measurement data is provided in Table 3.11-10. The long-term noise measurement locations were identified as unique noise generators in the Planning Area due to a high volume of traffic, large number of truck trips, or commercial activities occurring in the vicinity. The eight long-term monitoring locations included residential, commercial, and industrial portions of the Planning Area. Short-term noise measurements were taken at 20 locations that generally represent residential areas in the Planning Area where ambient noise levels were anticipated to be lower than those along major transportation corridors and commercial areas (City of Elk Grove 2018).

Table 3.11-10 Summary of Ambient Noise Measurement Data

Noise Measurement	Range of Noise Levels (dBA)
Long-term Ambient Noise, 24-hour L_{dq}	61–78
Short-term Ambient Noise (L_{eq})	50–71

Note: L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq} , is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by California Department of Transportation (Caltrans) and Federal Transit Administration (FTA) (Caltrans 2013:2-47; FTA 2018:2-19).

Source: City of Elk Grove 2018

3.11.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This impact analysis is based primarily on review of the analysis presented in the General Plan EIR.

Construction Noise and Vibration

To assess potential short-term construction-related noise and vibration impacts, typical Project-generated construction source noise and vibration levels were determined based on methodologies, reference emission levels, and usage factors from FTA's *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2018) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise and vibration emissions for specific equipment or activity types are well documented and the usage thereof common practice in the field of acoustics.

Operational Noise and Vibration

Non-Transportation Noise

With respect to non-transportation noise sources (e.g., stationary) associated with project implementation, the assessment of long-term (operational-related) impacts was based on reconnaissance data, reference noise emission levels, and measured noise levels for activities and equipment associated with project operation (e.g., building mechanical equipment), and standard attenuation rates and modeling techniques.

Transportation Noise

Traffic noise levels were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108) based on California vehicle reference noise emission factors. The Project includes a list of both existing and candidate housing sites in the project area. For future development, all of the candidate housing sites would require either changes in the sites zoning designation to higher density residential uses or changes to residential uses from other zoning designations. It is assumed that these zoning changes and subsequent development of the housing sites would result in additional vehicles trips on adjacent roadways, compared to their existing zoning designations as part of the City's General Plan. These changes would result in changes to traffic noise levels on affected roadway segments which may affect nearby sensitive receptors. Increases in traffic noise levels attributable to the Project were analyzed using roadway traffic data included in the City's General Plan EIR as well as roadway traffic data analyzed as part of the transportation analysis for the Project. New vehicle trips generated by the Project were added to traffic volumes modeled as part of General Plan EIR to analyze the roadway traffic noise level increases on affected roadways that would be associated with the Project. Projected traffic noise level increases were then compared to the City's transportation noise standards (see Section 3.11.1) to identify whether any standards were exceeded and any new or substantially more severe impacts would result from the Project.

Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths. For this analysis, the mix of vehicles on the roadway was adjusted based on

information from the traffic analysis conducted for this project. For roadway segments included in this analysis, distances to the nearest receptor adjacent to roadways were measured and used in FHWA roadway noise prediction model to calculate traffic noise level at the site of the receptor. Note that the traffic noise modeling does not account for any natural or human-made shielding (e.g., the presence of trees or solid backyard fences or walls) and, consequently, estimates worst-case noise exposure levels.

THRESHOLDS OF SIGNIFICANCE

As a project undertaken by the City of Elk Grove, City noise standards are reasonable and appropriate thresholds for determination of significance. Therefore, a noise impact is considered significant if implementation of the Housing Element and Safety Element Update would result in any of the following:

- ▶ construction-generated noise levels at residential receptors exceeding 50 dB L_{eq} or 65 dB L_{max} (the City's nighttime standards for fixed noise sources as shown in Table 3.11-5) during non-exempt nighttime hours from 7:00 p.m. to 7:00 a.m., Monday through Saturday, as defined in the City's Code of Ordinances;
- ▶ long-term, traffic-generated noise levels exceeding the outdoor and interior noise standards for transportation noise sources as specified in Table 3.11-3 or an increase in ambient-noise levels of more than the allowable noise increment at nearby existing noise-sensitive land uses as specified in Policy N-2-2 in the City's General Plan;
- ▶ long-term noise levels generated by stationary or area sources that exceed City standards for fixed noise sources, shown in Table 3.11-5, at existing noise-sensitive land uses;
- ▶ construction-generated or operational vibration levels exceeding Caltrans's recommended standards with respect to the prevention of structural building damage (shown in Table 3.11-2) or human response (shown in Table 3.11-3) at nearby vibration-sensitive land uses;
- ▶ for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or
- ▶ for a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

ISSUES NOT DISCUSSED FURTHER

As described above, Franklin Field, Sacramento Executive, Sacramento International airport noise contours do not extend into the City of Elk Grove, and noise generation from Sky Way Estates Airport and Borges-Clarksburg Airport within the City of Elk Grove is minimal. As a result, noise impacts due to proximity to public and private airports and airstrips is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: Construction Activities Could Result in a Substantial Temporary Increase in Noise Levels at Nearby Noise-Sensitive Land Uses

The General Plan EIR determined that the potential noise generation from construction activities could result in a substantial temporary increase in noise levels, but that this impact would be reduced through adherence to the Municipal Code and General Plan Policy N-1-7, and that in some cases the City could require a site-specific assessment and mitigation to reduce construction noise. The General Plan EIR concluded this impact would be less than significant. Construction activities associated with implementation of the Housing Element and Safety Element Updates would be required to comply with these same standards as well as General Plan Policy N-1-8 and would not result in new or substantially more several impacts related to construction noise. Project impacts would be **less than significant**.

The proposed Project also includes updates to the Safety Element to incorporate emergency access route information and could result in emergency access improvements. These updates would not result in noise because they either result in administrative changes or have uncertain physical impacts because it is currently not known where additional emergency access improvements would ultimately be constructed. No specific changes in the built environment are proposed as part of the Safety Element amendments.

Construction noise associated with future residential land uses and associated infrastructure development under the Housing Element update would be temporary in nature and would vary depending on the characteristics of the construction activities being performed. The proposed Project includes existing and candidate housing sites that would have construction activity as future residential projects are approved over the life of the Housing Element Update. Development of these sites would also require construction of associated infrastructure, such as roadways and water distribution pipelines, with the majority of development concentrated in the south-central and north-central portions of the City. Under the proposed Project, the primary sources of temporary or periodic noise would be construction activity and maintenance work. Noise generated during construction of buildings and related structures is typically associated with the operation of off-road equipment, including excavation and demolition equipment. Considering this, construction is a continuous source of temporary noise and would continue to be a major noise source in the City. These noise impacts from construction activities were identified in Impact 5.10.1 of the General Plan EIR.

Where housing sites would remain zoned for similar density as in the General Plan, these impacts would be similar to impacts as identified in the General Plan EIR in character, extent, and intensity. However, the Housing Element Update includes proposed rezoning at several housing sites that would either increase allowable density or change the type of base zoning district. For example, the update involves rezoning sites that are RD-4 and RD-5 to RD-25, increasing the density allowed on the site. As an example of the change in use, the update involves rezoning sites that are SC or LC to RD-30. An increase in density may prolong and increase noise generated during construction because constructing a multi-unit residential building can take longer than solitary single-family homes. More construction activities may also occur at one time given the larger size of buildings. Rezoning sites from non-residential use to high-density residential use is likely to result in impacts that are similar to those contemplated in the General Plan EIR. For example, a multifamily building could be similar to a business and professional office park in size, so the duration and kind of construction and the noise generated might also be similar.

The time that construction would occur, however, would be similar to that contemplated in the General Plan EIR. The majority of construction activities would occur during daytime hours, when sensitive receptors are less sensitive to increased noise levels. Noise levels associated with construction activities occurring during the more noise-sensitive evening and nighttime hours (i.e., 7 p.m. to 7 a.m.) are of increased concern, though are unlikely to occur for residential construction. While some construction activities must be continuous (e.g., well drilling or concrete pouring) until completed, residential development typically does not need to be because it is typically on a smaller scale than would require a multiday effort (see, for example Stockton 2015, where a building required 18 hours to pour the foundation for a high-rise building). However, nighttime construction may be required and may occur in limited situations for some residential construction if there are scheduling issues with tasks that must be done continuously until completed. Construction activities performed during these evening hours could result in increased annoyance and potential sleep disruption for occupants of nearby residential dwellings because exterior ambient noise levels typically decrease during the nighttime hours as community activities (e.g., commercial activities, vehicle traffic) decrease. See Table 3.11-8 for a list of typical uncontrolled noise levels generated by commonly used construction equipment.

For the General Plan EIR, construction noise modeling was done for the loudest typical phase of construction (site preparation) using a conservative scenario for construction noise disturbance. That scenario modeled an excavator, dozer, dump truck, front end loader, and grader. Results of the modeling showed that typical construction site noise levels could be as high as 93 L_{eq} dBA at 25 feet and 81 L_{eq} dBA at 100 feet. Construction activity that would include an impact pile driver could reach 97 L_{eq} dBA at 25 feet and 85 L_{eq} dBA at 100 feet.

The City's Municipal Code and Elk Grove Construction Specifications Manual include standards for noise-related activities, including exemptions for intermittent noise sources including construction activities. Municipal Code

Chapter 6.32.100 contained in Title 6, Health and Sanitation, exempts construction noise from the standards set forth in the municipal code for non-transportation noise between the hours of 6:00 a.m. and 8:00 p.m., but construction activities may only occur between the hours of 7:00 a.m. and 7:00 p.m. when located in proximity to residential uses. There is also an exemption for unforeseen or unavoidable conditions during construction when the nature of the project necessitates that work continue until completion of a specific phase subject to approval by the City. This would reduce the potential for construction noise to occur at the more-sensitive times of day. General Plan Policy N-1-8 would further protect current and future sensitive land uses from noise impacts related to future development in the City. Under Policy N-1-8, for development projects that are subject to discretionary review, the City may require applicants to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on those uses.

In summary, future construction activity is anticipated with adoption of the Project, but the activity would be temporary, intermittent, and vary in size and characteristics depending on the type of development. Existing receptors and sensitive land uses may be adversely affected by anticipated noise levels from new construction. Construction-related noise generated during the day (7:00 a.m. through 7:00 p.m. in proximity to residential uses and 6:00 a.m. through 8:00 p.m. in other instances) is generally exempt from meeting noise standards, and unforeseen circumstances necessitating work past 7:00 p.m. is also generally exempt, as provided under the Municipal Code and General Plan Policy N-1-7. However, in certain cases, the City could require a site-specific assessment and require mitigation to reduce construction noise levels on nearby sensitive uses. There is no new significant effect and the impact is not substantially more severe than the impact identified in the General Plan EIR because, similar to what was identified in the General Plan EIR, the construction noise would occur during the day—when sensitive receptors are least sensitive—and would occur consistent with what is allowed in the Municipal Code and General Plan. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policy N-1-8 and Municipal Code Section 6.32.100 and the Elk Grove Construction Specifications Manual.

Impact 3.12-2: Traffic Noise

General Plan EIR Impact 5.10.2 identified that implementation of the General Plan would result in a significant and unavoidable increase in transportation noise, including traffic noise levels along many existing roadways in the City. Further, Impact 5.10.2 notes that the General Plan includes a set of policies that are intended to ensure that new specific proposed development would comply with noise standards and would not adversely impact sensitive land uses from traffic noise. The policies include Policy N-1-1, Policy N-1-2, Policy N-1-4, Policy N-1-5, and Policy N-2-3. Activities resulting from implementation of the Housing Element and Safety Element Update would also be subject to the set of General Plan policies listed above and would not result in a new or substantially more severe impact. Project impacts would be **less than significant**.

The list of candidate housing sites included in the Housing Element Update could be developed in the future and would result in additional vehicle trips to roadways in the City. New vehicle trips associated with these candidate housing sites would result in additional traffic noise level increases beyond those that were modeled and analyzed in the City's current General Plan EIR (City of Elk Grove 2018). These increased traffic volumes could expose existing and future sensitive receptors and noise sensitive land uses to increased traffic noise. Residential developments, schools, libraries, hospitals, convalescent homes, and places of worship are the most noise-sensitive land uses.

General Plan EIR Impact 5.10.2 identified that implementation of the General Plan would result in a significant increase in transportation noise, including traffic noise levels along many existing roadways in the City. As shown in Table 3.11-11, all of the roadways affected by new trips from implementation of the City's General Plan are expected to exceed the City's exterior noise standard for residential and other noise sensitive land uses (60 dBA Ldn). See Table 3.11-3 for the full list of noise standards by land use type. As discussed in General Plan EIR Impact 5.10.2, the General Plan includes a set of policies that are intended to ensure that new specific proposed development would comply with

noise standards and would not adversely impact sensitive land uses from traffic noise. These include Policy N-1-1, Policy N-1-2, Policy N-1-4, Policy N-1-5, and Policy N-2-3.

Table 3.11-11 Predicted Increases in Traffic Noise Levels

Roadway	From	To	L _{dn} at 50 Feet from Near-Travel-Lane Centerline ¹ (dBA L _{dn})			Noise Level Increase (dBA)	Substantial Noise Level Increase?
			Existing Conditions (2018)	General Plan Buildout	General Plan Buildout w/ Housing Element		
Bilby Rd	Big Horn Blvd	Lotz Pkwy	NA	69.4	70.1	0.8	No
	Lotz Pkwy	Promenade Pkwy	NA	69.2	70.0	0.8	No
Bond Rd	SR 99	E Stockton Blvd	70.6	72.9	73.0	0.0	No
	E Stockton Blvd	Elk Crest Dr	72.0	72.1	72.2	0.1	No
	Waterman Rd	Bradshaw Rd	70.4	74.4	74.4	0.1	No
Bradshaw Rd	Calvine Rd	Sheldon Rd	67.4	72.8	72.9	0.1	No
Bruceville Rd	Big Horn Blvd	Laguna Blvd	69.2	72.3	72.4	0.1	No
Calvine Rd	Power Inn Rd	Elk Grove Florin Rd	71.7	71.0	71.0	0.1	No
	Elk Grove Florin Rd	Waterman Rd	70.6	74.5	74.5	0.0	No
	Waterman Rd	Bradshaw Rd	69.2	73.2	73.2	0.0	No
Elk Grove Blvd	I-5	Harbour Point Dr	68.9	73.0	73.1	0.0	No
	Harbour Point Dr	Four Winds Dr	70.3	71.5	71.6	0.1	No
	Franklin Blvd	Bruceville Rd	72.0	73.5	73.5	0.0	No
Elk Grove Blvd	Elk Grove Florin Rd	Waterman Rd	63.8	70.2	70.3	0.1	No
Laguna Blvd	SR 99	Franklin Blvd	70.8	71.6	71.8	0.2	No
	Big Horn Blvd	Laguna Springs Dr	71.2	72.9	73.0	0.0	No
	Laguna Springs Dr	SR 99	71.1	73.8	73.9	0.0	No
Power Inn Rd	Calvine Rd	Sheldon Rd	65.8	67.4	67.6	0.2	No
Sheldon Rd	SR 99	E. Stockton Blvd	70.8	73.1	73.3	0.2	No
Sheldon Rd	E. Stockton Blvd	Power Inn Rd	71.0	73.3	73.5	0.3	No
Waterman Rd	Sheldon Rd	Bond Rd	66.2	69.4	69.5	0.1	No
	Bond Rd	Elk Grove Blvd	70.7	73.8	73.9	0.1	No
	Elk Grove Blvd	Grant Line Rd	66.9	72.5	72.6	0.1	No
Whitelock Pkwy	Big Horn Blvd	Lotz Pkwy	62.3	67.0	67.2	0.2	No
	Lotz Pkwy	SR 99	NA	72.5	72.5	0.0	No

¹ Substantial increases defined as an increase of 5.0, or greater, where noise levels are less than the City's normally acceptable minimum noise level of 60 dBA L_{dn}; 3 dBA, or greater, where noise levels range from 60 to 65 dBA L_{dn}; and 1.5 dB, or greater, where the noise level exceeds 65 dBA L_{dn} without the proposed Project.

Source: Ascent Environmental 2020

Policy N-1-1 requires that indoor and outdoor areas in new development be located, constructed, and/or shielded from noise sources in order to achieve compliance with the City's noise standards. Policy N-1-2 encourages development projects to use site planning and project design measures before considering using sound barriers to achieve noise standards. Policy N-1-4 and Policy N-1-5 requires the City to protect noise sensitive land uses that are designated in the General Plan. Policy N-2-3 encourages new development to consider alternatives aside from sound

walls to reduce noise to acceptable levels in residential areas that were originally constructed without sound walls. However, the General Plan EIR found that while the General Plan policies listed above would serve to limit traffic noise exposure to sensitive receptors, these policies cannot ensure that noise levels would be reduced to levels within the City's noise standards for all locations of sensitive receptors. Therefore, this impact was determined significant and unavoidable.

Additional trips generated from housing sites as part of the Housing Element Update would result in additional increases in traffic noise levels not previously analyzed as part of the General Plan EIR. However, as shown in Table 3.11-11, the additional noise increases from the Project would not cause traffic noise levels on affected roadways to exceed any of the City's noise standards in Table 3.11-3. As noted in Section 3.11.2, traffic noise levels on relevant roadways previously exceeded the City's residential exterior noise standard (60 dBA L_{dn}) under existing conditions. As shown in Table 3.11-11, traffic noise level increases from the Project would range from 0.0 to 0.3 dBA CNEL and would be less than the allowable traffic noise increase of 1.5 dBA L_{dn} for roadway segments with noise levels above 65 dBA or +3 dBA increase for roadways between 60 and 65 dBA L_{dn} (see Policy N-2-2 in Section 3.11-1).

As a result, new vehicle trips generated by the Project would not result in a new or substantially more severe impact than was analyzed as part of the General Plan EIR. The Housing Element also includes housing sites located in areas that do not currently have roadways but that will be built out as part of future development in the City. As a result, traffic noise level increases cannot be determined for these locations at this time. Subsequent project applications would be required to submit noise analyses and associated noise attenuation features as part of building plans and/or site designs that may include building treatments to meet City interior noise standards, sound barriers, or other site improvements (e.g., building orientation to address line of sight associated with noise sources).

The proposed Project also includes updates to the Safety Element to incorporate emergency access route information and potential emergency access improvements. The updates would not result in changes to traffic volumes on roadways in the City and, therefore, would not result to changes in traffic noise levels that may affect sensitive receptors.

As shown in Table 3.11-11, the Project would increase traffic noise levels on affected roadways in the City. However, all affected roadway segments are above the City's traffic noise standard (60 dBA L_{dn}) under existing conditions and would be increased by implementation of the General Plan even without the Project. Traffic noise level increases as a result of the Project would not be above the City's allowable incremental noise increase threshold of 1.5 dBA (see Policy N-2-2 in Section 3.11-1) for roadway segments with noise levels above 65 dBA L_{dn} or +3 dBA increase for roadways between 60 and 65 dBA L_{dn} . As a result, the project would not result in a new or substantially more severe impact. This impact would **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan policies N-1-1, N-1-4, N-1-5, and N-2-3.

Impact 3.11-3: Future Development Could Expose Existing Noise-Sensitive Land Uses to New Non-Transportation Noise Sources that Could Exceed the City's Applicable Noise Standards

General Plan EIR Impact 5.10.3 determined that potential noise generation from future development could expose existing noise-sensitive land uses to new non-transportation noise sources that could exceed the City's applicable noise standards. Specific to residential land uses, the General Plan EIR identified lawn and garden equipment, voices, and amplified music as potential noise sources associated with residential land uses. The General Plan EIR identified Section 6.32.110 of the Municipal Code as containing hourly noise standards that apply to non-transportation noise sources. Implementation of the Housing Element Update and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe noise impacts than was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Implementation of the Housing Element Update would allow for the development of new residential land uses, predominantly located in the south-central and north-central portions of the City. Noise from proposed residential

land uses could increase ambient noise levels, due to typical activities associated with residential land uses, such as lawn and garden equipment, voices, and amplified music, and air conditioning units. These noise sources would be intermittent in nature and would vary considerably, depending on the specific characteristics of that residential area. Noise in residential areas also tends not to be of a level or frequency that would disturb sensitive receptors and would mostly occur during the daytime, when receptors are least sensitive. For example, lawn and garden equipment would be intermittently used during the daytime for the short period of time needed for yard maintenance. Voices would also be intermittent and not particularly loud. The noise impacts from development of residential land uses were identified in Impact 5.10.3 of the General Plan EIR. Additionally, General Plan Policy N-2-1 also indicates that noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards presented in Table 3.11-4. In summary, while the proposed Housing Element housing sites could result in future non-transportation or stationary noise increases, those increases would be limited due to the nature of noise sources and noise generation associated with residential development. Implementation General Plan Policy N-2-1 and compliance with Municipal Code Chapter 6.32 would also limit noise impacts.

The proposed Project also includes updates to the Safety Element to incorporate emergency access route information and the potential need for potential emergency access improvements. Thus, the Safety Element Update would not create any new stationary noise sources.

There is no new significant effect, and the impact is not more severe than the impact identified in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policy N-2-1 and Municipal Code Section 6.32.110.

Impact 3.11-4: Result in Development Projects Involving that Could Expose Receptors to Excessive Groundborne Vibration

General Plan EIR Impact 5.10.4 determined that potential vibration generation from construction and operation could occur as a result of the project. Long-term vibration was mainly associated with transit system routes and maintenance activities, and vibration from increased traffic would not be perceptible. Short-term vibration associated with construction could be substantial for activities such as pile driving and vibratory rolling. Adherence to Policy N-1.9 was identified as having a mitigating effect on construction vibration. Implementation of the Housing Element Update and Safety Element Update would be required to comply with these standards and would not result in a new or substantially more severe vibration impacts. Project impacts would be **less than significant**.

Implementation of the Housing Element and Safety Element Update would result in future construction activities for housing sites and potential emergency access improvements, some of which could occur near existing residences and noise-sensitive land uses throughout the City. The vibration standards in Table 3.11-2 are used by the City as significance thresholds for analyzing vibration impacts. As stated in the table, a vibration of 0.2 in/sec ppv or less typically will not result in structural damage. This same threshold also represents the level at which vibration would be potentially annoying to people in buildings (Caltrans 2002b, 2004). For most construction projects, groundborne vibration levels would not pose a significant risk to nearby structures or occupants. Construction activities often associated with development projects that do not require the use of pile drivers but involve equipment such as a large dozer, loaded trucks, and a jackhammer would typically generate ground vibration levels of approximately 0.09 in/sec ppv, or less, at 25 feet (FTA 2006). However, the construction of some facilities may require the use of construction equipment that can cause vibrational impacts (i.e., pile drivers). In addition, road improvement projects (e.g., constructing roadways for residential development) often require the use of vibratory rollers, which, when operated close to existing structures, can result in increased levels of annoyance. Ground vibration levels associated with pile drivers can reach levels of approximately 1.52 in/sec ppv at 25 feet. Pile drivers can generate ground vibration levels of 0.2 in/sec ppv at distances up to approximately 200 feet (FTA 2006). Depending on the distance to nearby existing structures, the more vibration-intensive construction activities (e.g., pile driving, vibratory rollers)

could potentially exceed the criterion of 0.2 in/sec ppv at nearby structures. These vibration impacts were identified in General Plan EIR Impact 5.10.0.

As described in Elk Grove General Plan Policy N-1-9, for projects involving the use of major vibration-generating equipment (e.g., pile drivers, vibratory rollers) that could generate groundborne vibration levels in excess of 0.2 in/sec ppv, the City may require a project-specific vibration impact assessment to analyze potential groundborne vibrational impacts and may require measures to reduce ground vibration levels. Municipal Code Chapter 6.32.100 contained in Title 6, Health and Sanitation, exempts construction noise from the standards set forth in the municipal code for non-transportation noise between the hours of 6:00 a.m. and 8:00 p.m., but construction activities may only occur between the hours of 7:00 a.m. and 7:00 p.m. when located in proximity to residential uses; unforeseen circumstances necessitating work past 7:00 p.m. are also generally exempt. This would also reduce the potential for construction-related vibration to occur at the more-sensitive times of day. Subsequent projects would demonstrate compliance through including these requirements on building plans or improvement plans.

Long-term groundborne vibration is most commonly associated with land uses near transit system routes and maintenance activities. Groundborne vibration associated with buses or trucks are not commonly perceptible. Roadway vibration is correlated to the smoothness of the running surface for vehicles. If the roadway is smooth, vehicle groundborne vibration is typically not perceptible (FTA 2006, p. 7-5). While the proposed Project includes development that would result in traffic volume increases along major arterial and collector roads throughout the City, these increases in vibration would not be perceptible based on the aforementioned factors. Development of the residential land uses themselves would not result in the long-term generation of vibration because residential land uses generally do not have substantial sources of vibration.

In summary, construction activities in the Planning Area could generate groundborne vibration. In some cases, vibration levels may be high enough to affect structures or cause annoyance at sensitive receptors. As discussed above, the proposed Project would need to comply with policies to address the assessment and siting of development that may exceed the City's performance standard for noise-sensitive land uses. These policies would reduce construction vibration. Operational vibration would not be substantial due to the nature of transportation vibration and because residential uses do not generate substantial vibration. There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policy N-1-9 and Municipal Code Section 6.32.100.

3.12 PUBLIC SERVICES AND RECREATION

This section provides an overview of existing public services in the City of Elk Grove and evaluates the potential for implementation of the Housing Element and Safety Element Update (Project) to affect availability, service level, and/or capacity of public services, including fire-protection services, police-protection services, parks and recreation, and public schools, and, if such an effect is determined to occur, whether new or expanded facilities would be required that could result in a potentially significant impact to the environment. Other publicly provided utility services, such as water and wastewater treatment, solid waste, electricity, and natural-gas services, are addressed in Section 3.14, "Utilities and Service Systems." 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).

No comments pertaining to public services and recreation were received in response to the notice of preparation (NOP).

3.12.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws are applicable to the provision of public services for the Project.

STATE

California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8, Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Fighting Equipment," the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

California Fire Code

The 2019 California Fire Code, which incorporates by adoption the 2018 International Fire Code, contains regulations related to the construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The California Fire Code contains specialized technical regulations related to fire and life safety.

Uniform Fire Code

The Uniform Fire Code (Fire Code) (California Code of Regulations, Title 24, Part 9) contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code also contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. Regulations address building standards, fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise buildings, child care facility standards, and fire suppression training, among other topics.

Leroy F. Greene School Facilities Act

The Leroy F. Greene School Facilities Act (Chapter 407, Statutes of 1998) places limitations on cities and counties with respect to mitigation requirements for school facilities. It permits school districts to levy fees, based on justification studies, for the purposes of funding construction of school facilities, subject to established limits. The act further states that payment of these fees by a development project is considered adequate to reduce impacts of that project on schools to a less-than-significant level for the purposes of CEQA review and compliance.

School districts that can establish a need by completing an annually updated fee justification study are authorized to collect school impact fees on new residential and commercial/industrial development in accordance with Education Code Section 17620 and Government Code Section 65995. The development school impact fees are intended to provide the local school district's 50 percent share of the cost of new school construction.

The Elk Grove Unified School District (EGUSD) has established school mitigation fees for residential development at \$6.43 per square foot and \$0.66 per square foot for commercial/industrial development (EGUSD 2020).

Quimby Act

The goal of the 1975 Quimby Act (California Government Code Section 66477) was to require developers to help mitigate the impacts of property improvements by requiring them to set aside land, donate conservation easements, or pay fees for park improvements. The Quimby Act gave authority for passage of land dedication ordinances only to cities and counties, thus requiring special districts to work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The fees must be paid and land conveyed directly to the local public agencies that provide parks and recreation services community-wide. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities.

Originally, the Quimby Act was designed to ensure "adequate" open space acreage in jurisdictions adopting Quimby Act standards (e.g., 3 to 5 acres per 1,000 residents). In some California communities, the acreage fee was very high where property values were high, and many local governments did not differentiate on their Quimby fees between infill projects and greenbelt developments. In 1982, the Quimby Act was substantially amended via AB 1600. The amendments further defined acceptable uses of or restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must be closely tied (nexus) to a project's impacts as identified through traffic studies required by CEQA. AB 1600 requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or parkland and the type of development project on which the fee is imposed. Cities or counties with a high ratio of parkland to inhabitants can set a standard of 5 acres per 1,000 residents for new development; those with a lower ratio can only require the provision of up to 3 acres of parkland per 1,000 residents. The calculation of this parkland-to-population ratio is based on a comparison of the population count of the last federal census to the amount of city- or county-owned parkland.

Public Resources Code Section 21151.2

Public Resources Code (PRC) Section 21151.2 requires school district governing boards to give the relevant planning commission a written notice in writing of the proposed acquisition before acquiring title to property for a new school site or for an addition to an existing school site. The planning commission is responsible for investigating the proposed site and providing it, and any related recommendations, to the governing board. EGMC Section 23.10.030 specifies that the Elk Grove City Council shall be responsible for such investigations and recommendations.

Government Code Section 65402

California Government Code Section 65402 requires a school district, prior to acquiring real property, to submit the location, purpose, and extent of such acquisition to the Planning Agency having jurisdiction for a determination as to conformity with the general plan. EGMC Section 23.10.030 specifies that the Elk Grove City Council shall make determinations under this State code section.

Government Code Section 53094

A school district, with a two-thirds vote, may render a city zoning ordinance inapplicable to classroom facilities, except when the proposed use of the property by the school district is for non-classroom facilities. Before a school

district can override a local zoning ordinance, it must first comply with expanded coordination and communication requirements. The district also must comply with pre-existing CEQA requirements regarding school site review before overriding local zoning.

LOCAL

City of Elk Grove General Plan

The City General Plan (City of Elk Grove 2019a) contains the following policies relevant to public services and the Project:

- ▶ **Policy ER-4-1:** Cooperate with the Cosumnes Community Services District (CCSD) Fire Department to reduce fire hazards, assist in fire suppression, and promote fire safety in Elk Grove.
- ▶ **Policy ER-4-2:** Work with the [Cosumnes Community Services District (CCSD)] to develop a fire prevention plan that lists major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard.
- ▶ **Policy SAF-1-2:** Encourage the use of Crime Prevention Through Environmental Design (CPTED) principles in the design of projects and buildings, as well as parks and trails.
- ▶ **Policy SAF-1-3:** Coordinate with the CCSD Fire Department to ensure that new station siting and resources are available to serve local needs.
- ▶ **Policy SAF-1-4:** Expand emergency response services as needed due to community growth.
- ▶ **Policy INF-1-2:** Require that water flow and pressure be provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.
- ▶ **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/or constructed concurrent with or prior to completion of new development.
- ▶ **Policy IFP-1-10:** Except when prohibited by state law, the City will endeavor to ensure that sufficient capacity in all public services and facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.

City of Elk Grove Municipal Code

Chapter 16.85: Elk Grove Fire Fee

The City established a fire fee to fund the cost of capital facilities (fire protection facilities and equipment) to meet fire protection service needs by the CCSD. This fee is paid at the issuance of building permits.

Chapter 17.04: California Fire Code

The City adopted the 2019 California Fire Code with some local amendments as set forth in Section 17.04.010. Section 17.04.020 designates the chief of the Cosumnes Community Services District (CCSD) Fire Department or authorized designee the authority to enforce this chapter of the Municipal Code.

Elk Grove Unified School District Funding

Elk Grove Unified School District (EGUSD) operations are primarily funded through local property tax revenue that is first accrued in a common statewide pool, and then allocated to each school district based on average daily attendance. State law also permits the charging of development fees to assist the EGUSD in funding capital acquisition and improvements to programs for school facilities, based on documented justification that residential and nonresidential development projects generate students. The EGUSD allows the imposition of fees that can be adjusted periodically, consistent with SB 50. Current developer fees are \$6.34 per square foot of residential space and

\$0.66 per square foot of commercial/industrial space (EGUSD 2020). The EGUSD also collects a Mello-Roos tax, with the taxes applied at various stages during project review and development.

City of Elk Grove - Park and Recreation Dedication and Fees

Municipal Code Chapter 22.40 requires tentative subdivision and tentative parcel map applicants to dedicate land or pay an in-lieu fee for the development of neighborhood and community parks, and provides a formula for calculating the in-lieu fee. The parkland acquisition and development standard is 5 acres per 1,000 residents. In addition to Municipal Code Chapter 22.40, the Capital Facilities Fee (CFF) Program, supported by periodic studies called the Nexus Study, identifies the need for new development's share of funding for new, or an expansion of existing, facilities, including City administration facilities, police station and vehicles, corporation yard facilities, animal shelter facilities, new library facilities, and multiple transit projects. The Nexus Study informs the annual development impact fee report, which provides fees based on land use type for the planned areas.

The City and CCSD also have fee programs specific to park development, such as the Southeast Policy Area (SEPA) Park and Trail Fee, the Laguna Ridge Park Fee and Laguna Ridge Supplemental Park Fee, and the CCSD Park Fee. For example, developers of projects in SEPA are required to meet their Quimby obligation (park land dedication or in-lieu fee) pursuant to Municipal Code Chapter 22.40 and they are also responsible for paying the SEPA Park and Trail Fee, which goes toward park facilities, and trail land and facilities. Municipal Code Chapter 16.95.022 establishes the SEPA park and trail fee. The Laguna Ridge Specific Plan (LRSP) includes a parks fee for facility construction of new facilities. There is also the Laguna Ridge Supplemental Parks Fee Program, which provides funding for construction of all the local and community parks in LRSP, as well as the land component for parks and parkways that exceed the Quimby standard of 5 acres per 1,000 residents.

Parks and Recreation Master Plan

The Parks and Recreation Master Plan is a joint document prepared and approved by the CCSD and the City. The Master Plan was developed to guide both agencies in providing parks and recreation opportunities for residents in the City and in the CCSD boundaries. The Master Plan establishes a clear direction for the CCSD's core services and responsibilities, defines service priorities and capital investments, and outlines the manner in which the parks and recreation facilities and program services will be funded and delivered (CCSD 2018).

Elk Grove Bicycle, Pedestrian, and Trails Master Plan

The Elk Grove Bicycle, Pedestrian, and Trails Master Plan (2014) is the expression of the City's desire to have an exemplary off-street multiuse trail system that provides connectivity throughout the City and the wider Sacramento region in order to offer recreational opportunities and an alternative method for transportation for City residents. To achieve this trail system, the City acknowledges the necessity to provide direction on where trails should be located; set design standards and guidelines to describe the desired characteristics of trails; identify funding sources for trail planning, construction, and maintenance; establish prioritization criteria for which trail projects to implement first; and describe the City and interagency collaborative actions required to create the trail system. The City Council adopted the first Trails Master Plan in January 2007, but the plan is continually updated as goals are achieved, as new funding sources become available. The current plan was adopted in 2014.

3.12.2 Environmental Setting

FIRE PROTECTION

Fire protection services in the City are provided by CCSD. Services include fire suppression, emergency medical services, technical rescue, and arson and explosion investigations in a 157-square-mile service area covering the City, Galt, and a portion of unincorporated southern Sacramento County. The service area encompasses a population of more than 203,022 persons. The CCSD has 180 personnel in its Operations Division and operates out of eight fire stations and three facilities (CCSD 2020). In 2016, the CCSD responded to 18,592 incidents, an 8.2 percent decrease from 2015. The CCSD's fire stations are at the following locations:

- ▶ Fire Station 45, 229 5th Street, central Galt
- ▶ Fire Station 46, 1050 Walnut Avenue, northeast Galt
- ▶ Fire Station 71, 8760 Elk Grove Boulevard
- ▶ Fire Station 72, 10035 Atkins Drive
- ▶ Fire Station 73, 9607 Bond Road
- ▶ Fire Station 74, 6501 Laguna Park Drive
- ▶ Fire Station 75, 2300 Maritime Drive
- ▶ Fire Station 76, 8545 Sheldon Road

In addition, three new fire stations are planned in the Planning Area: (1) Station 77 to be located within the Laguna Ridge Specific Plan Area near Whitelock Parkway; (2) Station 78, to be located within the Sterling Meadows development along Lotz Parkway just north of Kammerer Road; and (3) Station 79 to be located within the Eastern Elk Grove Community Plan Area near Grant Line Road along Bradshaw Road.

LAW ENFORCEMENT

California Highway Patrol

The California Highway Patrol Valley Division provides services to the south Sacramento region from the division's South Sacramento office located at 6 Massie Court, Sacramento. The office patrols sections of I-5, State Route 99, U.S. Highway 50, and Business 80, as well as 500 miles of unincorporated county roadways.

Elk Grove Police Department

Police protection services are provided by the Elk Grove Police Department (EGPD) for areas within the City. EGPD is headquartered at 8400 Laguna Palms Way. EGPD is divided into four divisions: the Operations Division, the Investigations Division, the Administrative Services Division, and the Support Services Division. The Operations Division (Patrol) is responsible for responding to calls for services and is made up of eight patrol teams, canine officers, school resource officers, and the crisis response team (Flynn, pers. comm., 2020; EGPD 2020).

The EGPD has an authorized strength of 146 sworn officers and 108 civilian employees. The Police Department responds to approximately 52,000 calls for service each year. Note that calls for service and staffing related to animal services have been excluded from this analysis (EGPD 2020).

EGPD's officer-to-resident population ratio standard is 0.81 sworn police officers per 1,000 residents, and EGPD's response time goal is 5 minutes for Priority 1 calls. In 2018, EGPD's actual response time was 5.1 minutes for Priority 1 calls, and in 2019, EGPD's response time was estimated at 5.25 minutes (Flynn, pers. comm., 2020).

SCHOOLS

EGUSD provides educational services, including elementary, middle, and high schools, to the City. EGUSD operates 42 elementary schools, nine middle schools, nine high schools, three continuation schools, one K-12 independent study program, one charter school, one virtual online K-8 program and one special education school. In addition, the District offers preschool programs, an adult education program and a career training center for adults. (EGUSD 2020).

To identify school needs, EGUSD has developed a comprehensive districtwide Facilities Master Plan (FMP). The FMP is the blueprint for investments in the educational infrastructure. The FMP indicates that during the 2015-16 school year, there were a total of 63,232 students enrolled. The total number of students projected to be enrolled in EGUSD in 2025-26 is 76,859. This represents a projected increase of 13,600 students. Based on the projected District-wide increase of 13,600 students through 2025, the FMP forecasts the need for ten to twelve new schools through 2025, of which eight to ten are elementary schools with one middle school and one high school (EGUSD 2016).

PARKS AND RECREATION

The CCSD Parks and Recreation Department provides park and recreational services to the City and maintains more than 90 parks that, together, encompass more than 1,000 acres of parks, corridors, creeks, and trails in the Elk Grove community. According to *Plan for Play: Parks, Recreation and Facilities Master Plan*, approximately 5.26 acres of parkland were available per 1,000 population in 2017, and planned parklands would result in a park acreage standard of less than 5 acres per 1,000 population. The master plan concluded that community needs included visitor experiences (restrooms, shade, gathering places), off-street trails, major facilities (multipurpose recreation centers and aquatic centers), sports fields, and park facilities (CCSD Parks and Recreation Department 2018).

The City and CCSD have entered into a Memorandum of Understanding (MOU) concerning the development of park and recreation facilities in the City. The MOU addresses funding, programming, construction, ownership, and maintenance of park and recreational facilities in the geographic limits of the City. The most recent MOU was approved through Resolution 2019-214 (City of Elk Grove 2019b).

3.12.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential public service impacts are based on applicable City standards policies and a review of documents pertaining to the Project, including the General Plan EIR. Impacts on public services that would result from the Project were identified by comparing existing service capacity and facilities against future, new, or renovated facilities, the construction of which could have physical effects on the environment.

THRESHOLDS OF SIGNIFICANCE

A public services and recreation impact is considered significant if implementation of the Project would do any of the following:

- ▶ Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
 - fire,
 - police protection,
 - schools,
 - parks, and
 - other public facilities;
- ▶ increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or
- ▶ include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.12-1: Require Construction of New Fire Protection Facilities, Resulting in Adverse Environmental Impacts

The General Plan EIR determined that where new growth areas within the City have been identified, new fire stations are planned to accommodate the anticipated growth and no significant impacts would occur. Compliance with applicable regulations and General Plan policies would ensure new fire station siting and resources are available. If new fire protection facilities are proposed, environmental review for the new facility would be conducted as appropriate. Project impacts associated with the construction of needed fire protection facilities would not result in a new or substantially more severe construction impacts than disclosed in the technical sections of the General Plan EIR. Development of housing sites identified in the Housing Element Update would be required to comply with applicable regulations and policies. Implementation of the Safety Element Update could provide additional improvements regarding emergency access and evacuation beyond the current Safety Element. Therefore, impacts related to the provision of fire services would be **less than significant**.

Implementation of the Housing Element Update could result in increased density at identified housing sites, which would result in associated population growth. This increase in population would increase demand for fire protection and emergency medical services, thus requiring additional firefighters, paramedics, and other personnel. Developed areas of the City's Planning Area are adequately served by the CCSD's existing fire stations and substantial new growth is not anticipated in these areas under the Housing Element Update. Where new growth areas within the City have been identified, new fire stations are planned to accommodate the anticipated growth. The increase in development density and intensity on the candidate sites could affect service ratios at facilities associated with fire protection, above that discussed in the 2019 General Plan environmental documents. The increased demand for fire protection and emergency medical services was evaluated in Impact 5.11.1.1 of the General Plan EIR.

Implementation of the Safety Element Update would update current policies and potentially result in emergency access improvements but would not increase development. Therefore, the Safety Element Update would not result in effects related to the increased demand for fire protection and emergency medical services.

General Plan Policies ER-4-1 and ER-4-2 are intended to reduce fire risk in the City by encouraging cooperation between the City and the CCSD as well as development of a fire prevention plan. Policies SAF-1-3 and SAF-1-4 call for coordination with the CCSD Fire Department to ensure that new station siting and resources are available to serve local needs and emergency response services are expanded as needed due to community growth. The CCSD Fire Department receives its funding through property taxes, fees for service, and grant funding and can, therefore, fund expanded services as new development occurs. Pursuant to Municipal Code Chapter 16.85, Elk Grove Fire Fee, all new development projects would be required to pay fire protection development fees to fund additional facilities and equipment. These funds would help to pay for costs associated with the development of new fire stations, if needed, including any required environmental analysis.

Development of the housing units associated with the Housing Element Update would increase the number of residents in the City, which would increase demand for fire protection and emergency medical services. The housing sites are located within CCSD Fire Department's existing service area and would not require any changes to the department's service area boundary. Therefore, implementation of the Housing Element Update would not directly affect response times. In addition, new housing units associated with the Housing Element Update would be designed to comply with building and fire codes (City Municipal Code Chapter 17.04) and include appropriate fire safety measures and equipment such as fire hydrants and sprinkler systems, smoke detectors, fire extinguishers, and adequate access and egress for emergency vehicle. Thus, the existing and planned fire stations would be sufficient to serve development related to the Housing Element Update.

There is no new significant effect and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, impacts related to the provision of fire services would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with Municipal Code Chapter 16.85 and 17.04 and General Plan policies ER-4-1, ER-4-2, SAF-1-3, and SAF-1-4.

Impact 3.12-2: Require Construction of New Law Enforcement Facilities, Resulting in Adverse Environmental Impacts

General Plan EIR Impact 5.11.1.2 indicated that police services operates out of a centralized facility at the City Hall complex and additional police services to accommodate development can be accomplished through additional personnel and equipment and no significant impacts would occur. Relative to the General Plan EIR, the Project would not result in new or substantially more severe impacts related to law enforcement. In addition, Elk Grove General Plan Policy SAF-1-1 directs regular monitoring and review of the level of police staffing provided in Elk Grove and ensures that sufficient staffing and resources are available to serve local needs. The addition of new officers and/or administrative staff would not require a new or expanded police facility because EGPD operations would continue within the centralized facility at the City Hall complex and additional police services to accommodate development can be accomplished through additional personnel and equipment. Therefore, impacts related to the provision of law enforcement would be **less than significant**.

Implementation of the Housing Element Update would increase housing and density in the City. The Housing Element Update would accommodate up to 2,722 additional dwelling units beyond the number anticipated in the original General Plan EIR. The additional units would accommodate approximately 8,773 people (based on 3.223 persons per household). To maintain EGPD's current officer-to-resident population ratio of 0.81 sworn police officers per 1,000 residents, approximately eight new officers and/or administrative staff may be needed to serve the City. The EGPD operates out of a centralized facility at the City Hall complex and additional police services to accommodate development can be accomplished through additional personnel and equipment. The main police service campus is growing to accommodate the need for more police department office and storage space.

The General Plan EIR anticipated urbanization of the City and identified that implementation of the General Plan would result in less-than-significant impacts to law enforcement with implementation of General Plan Policy SAF-1-1 (Impact 5.11.2.1, City of Elk Grove 2018: 5.11-7). General Plan Policy SAF-1-1 directs regular monitoring and review of the level of police staffing provided in Elk Grove and ensures that sufficient staffing and resources are available to serve local needs. Similar to funding for fire protection services, new staff and equipment necessary to provide additional law enforcement services would be funded by development impact fees, which would be required to be paid by all proposed development within the City, as well as by ongoing payments of property taxes. The Safety Element Update policies addresses evacuation routes and identifies residential development in hazards areas with limited access and could result in access improvements. Thus, implementation of Safety Element Update policies could provide benefits to emergency response activities by both police and fire.

The fiscal impacts that a project may pose to a city is not an environmental impact. As discussed above, indirect housing development that may be constructed as a result of Housing Element implementation would result in a potential need for additional Elk Grove police officers. The City collects a Capital Facilities Fee that provides fair share funding towards the construction of new police facilities and acquires new (not replacement) police equipment to serve growth. There is no new significant effect, and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, the Project would have **less-than-significant** impacts related to expanded police services and facilities.

Mitigation Measures

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

Impact 3.12-3: Increased Demand for New Public School Facilities

Impact 5.11.3.1 of the General Plan EIR identifies that future development in the City would result in an increase of school-aged children and would require the construction of new public school facilities. As determined by the General Plan EIR, because school facilities would be constructed by the EGUSD the environmental impacts of school construction would be significant and unavoidable. Implementation of the Project would result in a substantial increase in student generation that could require additional school facility needs beyond current General Plan buildout. This would be a substantial increase in impact severity than what was previously identified in General Plan EIR Impact 5.11.3.1. No mitigation measures are available to reduce potentially significant impacts; thus this impact would be **significant and unavoidable**.

As stated previously, implementation of the Housing Element Update would result in additional housing in the City. Overall, the Housing Element Update could increase the number of dwelling units in the City up to 2,722 units beyond those identified in the General Plan. This increase of 2,722 net new housing units would result in a potential population increase in the City of up to 8,773 persons when compared to the adopted General Plan. Implementation of the Safety Element Update would update current policies but would not increase development that would generate new students. Therefore, the Safety Element Update would not result in effects related to the increased demand for public school facilities.

With the anticipated development under the Housing Element Update, there would be an increase in the number of school-aged children that would reside in the City, triggering the need for additional public school facilities. Table 3.12-1 summarizes the EGUSD student generation rates from the School Facility Needs Analysis (EGUSD 2017).

Table 3.12-1 Potential New Students

Grade Level	Multi-Family Units	Maximum Potential of Additional Units Beyond General Plan Buildout	New Students
Elementary K-6	0.2108	2,722	574
Middle School 7-8	0.0541		147
High School 9-12	0.1270		346
Total		2,722	1,067

Calculated by Ascent Environmental in 2020.

Based on the existing student generation factors, the Housing Element Update could result in an additional 1,144 students to be enrolled at EGUSD schools. This increase in enrollment may require the construction of additional elementary schools, a middle school, and a high school. Anticipated growth under the Housing Element Update would be in addition to the projected student enrollment, which was developed before adoption of the General Plan. Thus, growth associated with the General Plan and the Housing Element Update was not factored into EGUSD planning and new or expanded public school facilities may be necessary. It is important to note that housing units associated with the Housing Element Update would be distributed across the City and, depending on the rate of development and the location, the specific need for one of each school type may not be necessary. For instance, revisions to school assignment boundaries, implemented at the discretion of the district, may be used to accommodate increased growth in some situations.

California Government Code Section 65995(h) states that "the payment or satisfaction of a fee, charge or other requirement levied or imposed...[is] deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities." All residential development within EGUSD's boundaries would be subject to the EGUSD residential fee in place at the time an application is submitted for a building permit. Under CEQA, payment of EGUSD residential development fees is considered to fully mitigate the need for school facilities generated by Project implementation.

Public Resources Code (PRC) Section 21151.2 requires school district governing boards to give the relevant planning commission a written notice in writing of the proposed acquisition before acquiring title to property for a new school site or for an addition to an existing school site. The planning commission is responsible for investigating the proposed site and providing it, and any related recommendations, to the governing board. In addition, Government Code Section 65402 requires a school district, prior to acquiring real property, to submit the location, purpose, and extent of such acquisition to the City Council for a determination as to conformity with the general plan. A school district, with a two-thirds vote, may render a city zoning ordinance inapplicable to classroom facilities, except when the proposed use of the property by the school district is for non-classroom facilities. Before a school district can override a local zoning ordinance, it must first comply with expanded coordination and communication requirements. The district also must comply with pre-existing CEQA requirements regarding school site review before overriding local zoning (Government Code Sections 53094, 65352.2).

Construction or expansion of public school facilities to accommodate population growth could result in significant impacts on such resources as aesthetics, air quality, biology, cultural resources, geology, hazards and hazardous materials, water quality, noise, and transportation. Because the location of any such public school facility has not been determined, it is speculative to address any precise environmental impacts associated with them. The actual impacts of new school facilities would depend upon the specific type and location of those facilities, and therefore project-specific environmental review would be required. The physical impacts of facility construction are discussed throughout the General Plan EIR. Nonetheless, because school facilities would be constructed by the EGUSD this impact would be potentially significant.

Mitigation Measures

As stated in the General Plan EIR, no additional feasible mitigation is available beyond compliance with existing laws and General Plan policies, and payment of EGUSD fees. While the EGUSD could and should implement measures to reduce physical environmental effects of school development, the EGUSD is not subject to mitigation adopted by the City. No enforceable measures are available. Therefore, this impact would remain **significant and unavoidable** as determined in the General Plan EIR.

Impact 3.12-4: Require Construction of New Park or Recreation Facilities, resulting in Adverse Environmental Impacts

Impact 5.11.4.1 of the General Plan EIR identifies that increased development would increase the demand on existing recreational facilities and require the development of new recreational facilities and no significant impacts would occur. Construction of park facilities would be subject to policies, standards, and mitigation measures from the General Plan and the General Plan EIR, or the mitigation identified in project-specific MMRPs. No new or substantially more severe impacts would be associated with implementation of the Project. The impacts of park construction would be **less than significant**.

Implementation of the Housing Element Update would in additional housing beyond what is currently allowed under the General Plan. This could result in an additional 2,722 dwelling units and a net increase of 8,773 in City population beyond what is currently anticipated at buildout under the General Plan. CCSD parkland standards, City Municipal Code Chapter 22.40 and General Plan Policy PT-1-3 require a minimum of 5 acres of developed parkland per 1,000 residents; the Laguna Ridge Specific Plan calls for parkland at a rate of 7 acres per 1,000 residents. The City has also established requirements for bicycle, pedestrian, and trail facilities as part of new development, either through the City's Bicycle, Pedestrian, and Trails Master Plan, or through the requirements of an area plan, such as LRSP or SEPA; though, these facilities are in addition to the required park facilities. The City requires that private developers proposing residential projects in the City either dedicate land for park facilities or pay a fee in lieu of providing parkland. These dedications and fees are collected by the City or CCSD as part of the development process and used for the purpose of developing new park facilities to serve the development for which the fees were paid. The dedication of parkland and the payment of fees in lieu of dedication were identified in Impact 5.11.4.1 of the General Plan EIR.

The Safety Element Update policies addresses evacuation routes and identifies residential development in hazards areas with limited access and could result in access improvements. This update would not have any environmental effects related to park and recreation facilities.

In addition to parkland requirements established in Policy PT-1-3, Policy PT-1-5 requires assurance of funding for maintenance of parks and/or trails prior to City approval of any Final Subdivision Map that contain or contributes to the need for public parks and facilities. Policy PT-1-6 directs coordination with the CCSD to provide designated park and open space areas in growth areas, and requires developers to incorporate open space where appropriate as a condition of approval. Policies PT-1-9 encourages park development adjacent to school sites to allow for concurrent use of the facilities when appropriate.

As part of the CCSD's Parks and Recreation Master Plan update, the City and the CCSD jointly adopted amendments to the Park Design Principles, which established requirements for the siting and sizing of new park facilities, as well as the design characteristics for these facilities. The update to the Parks and Recreation Master Plan and the Park Design Principles was coordinated with the General Plan, and describe the service area and design objectives for new parks and recreation facilities in the community.

Any future housing that is constructed under the Housing Element Update would increase the use of existing and generate new demand for parkland and facilities. The dedication of land or payment of in-lieu fees, in combination with policies in the General Plan, would ensure that impacts related to deterioration of existing parks and recreation facilities would not occur. Although development impact fees are required to ensure a minimum acreage of parkland within the City, these fees apply to subdivisions and not individual units such as those included in the Housing Element Update.

As noted above, the City and the CCSD have entered into an MOU regarding delivery of some parks and recreation facilities within the City's existing boundaries. Development projects outside of the MOU areas that include the construction of recreation facilities would be subject to General Plan policies and mitigation measures identified in the General Plan EIR to reduce physical environmental effects. The CCSD would be responsible for the construction of facilities in the MOU areas and would be required to comply with mitigation monitoring and reporting program (MMRP) from the relevant project-level CEQA document in which the park facilities would be located.

There is no new significant physical effects to parks and recreation and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, the Project would have **less-than-significant** impact.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan policies PT-1-3, PT-1-5, PT-1-6, and PT-1-9, City and CCSD MOU, and City Municipal Code Chapter 22.40.

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3.13 TRANSPORTATION

The section summarizes transportation impacts in the City of Elk Grove General Plan area, as described in the General Plan (City of Elk Grove 2019a) and evaluates the potential transportation impacts resulting from implementation of the City of Elk Grove Housing Element and Safety Element Update (Project). This section identifies applicable regulatory requirements and describes the existing transportation system in the vicinity of the Project area. It also evaluates impacts related to the generation of vehicle miles traveled (VMT); bicycle, pedestrian, and transit facilities; transportation hazards; emergency access; and temporary construction resulting from implementation of the proposed Project.

The 2018 City of Elk Grove General Plan Update EIR (General Plan EIR) included Section 5.13, "Transportation," which evaluated the potential effects of the adopted General Plan. The General Plan EIR concluded that there would be less-than-significant impacts related to transportation hazards, emergency access, bicycle facilities, pedestrian facilities, and transit facilities (Impacts 5.13.5, 5.13.6, and 5.13.7). The General Plan EIR concluded that impacts related to VMT impacts would be significant and unavoidable with implementation of all proposed General Plan policies. It was determined that there were no other feasible mitigation measures. The General Plan EIR also concluded that impacts related to traffic operational impacts would be significant and unavoidable with implementation of all feasible mitigation measures. However, pursuant to Senate Bill (SB) 743, Public Resources Code (PRC) Section 21099, and California Code of Regulations (CCR) Section 15064.3(a), generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts and a project's effect on automobile delay shall no longer constitute a significant impact under CEQA. Therefore, the transportation analysis here-in evaluates impacts using VMT and does not include level of service (LOS) analysis.

The analysis within this section is based on the analysis and findings of the *Elk Grove Housing Element Update VMT Analysis* memorandum prepared by Fehr & Peers in November 2020, which evaluates the environmental effects of the Project based on the City CEQA significance thresholds contained within the *City of Elk Grove General Plan* and the *City's Transportation Analysis Guidelines*. The *Elk Grove Housing Element Update VMT Analysis* memorandum is included as Appendix D and provides additional detailed data, modeling, and information related to the transportation analysis.

There were no comments related to transportation received in response to the notice of preparation (NOP).

3.13.1 Regulatory Setting

The federal and State regulatory setting for transportation provided on pages 3.13-23 through 3.13-25 of the General Plan EIR remain applicable to this analysis. However, an updated description of the adopted changes to the State CEQA Guidelines pursuant to SB 743 that have occurred subsequent to the approval of the General Plan EIR are described below. Additionally, since certification of the General Plan EIR, changes to the regional and local regulatory setting have occurred. These changes are described in detail below.

FEDERAL

There are no new federal laws or regulations addressing transportation that are relevant to the Project.

STATE

Senate Bill 743

SB 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new State CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not

be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any.”

In December of 2018, OPR published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018) which provides guidance for VMT analysis. The Office of Administrative Law approved the updated State CEQA Guidelines and lead agencies had an opt-in period until July 1, 2020 to implement the updated guidelines regarding VMT. As of July 1, 2020, implementation of CCR Section 15064.3 of the updated CEQA Guidelines applies statewide.

REGIONAL

SACOG is an association that includes the Counties of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba, as well as 22 cities, including the City of Elk Grove. As a metropolitan transportation organization, SACOG is required to prepare a long-range transportation plan (the metropolitan transportation plan) for all modes of transportation, including public transit, automobile, bicycle, and pedestrian, every 4 years for the six-county area. In addition to preparing the region’s long-range transportation plan, SACOG assists in planning for transit, bicycle networks, clean air, and airport land uses.

Metropolitan Transportation Plan/Sustainable Communities Strategy

SACOG is responsible for preparing and updating the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the corresponding Metropolitan Transportation Improvement Program (MTIP) for the six-county Sacramento region. In response to this requirement, SACOG completed the 2020 MTP/SCS. The purpose of the 2020 MTP/SCS is to establish regional access and identify mobility goals; identify present and future transportation needs, deficiencies, and constraints within the transportation system; analyze potential solutions; estimate available funding; and propose investments. On November 18, 2019, the SACOG Board of Directors adopted the 2020 update to the MTP/SCS.

The Congestion Management Process (CMP) and MTP/SCS are developed as a single integrated document. As part of the MTP/SCS, SACOG’s CMP addresses the six-county Sacramento region and the transportation network therein. The CMP focuses on travel corridors with significant congestion and critical access and mobility needs to identify projects and strategies that meet CMP objectives. Transportation projects are nominated by local agencies and analyzed against community priorities identified through public outreach, as well as technical performance and financial constraints.

Metropolitan Transportation Improvement Program

SACOG prepares and adopts the MTIP approximately every 2 years. The MTIP is a short-term listing of surface transportation projects that receive federal funds, are subject to a federally required action, or are regionally significant. SACOG adopted the 2019–22 MTIP in December 2018 (SACOG 2018). The 2019–22 MTIP covers 4 years of programming: federal fiscal years 2019–2022. The project listing in the MTIP provides a detailed description for each individual project in the 2019–22 MTIP, including those in Sacramento County and the City of Elk Grove.

Regional Bicycle, Pedestrian and Trails Master Plan

SACOG approved the *Regional Bicycle, Pedestrian, and Trails Master Plan* in April 2015 (SACOG 2015). It envisions a complete transportation system that supports healthy living and active communities where bicycling and walking are viable and popular travel choices in a comprehensive, safe, and convenient network. The *Regional Bicycle, Pedestrian, and Trails Master Plan* is intended to guide the long-term decisions for the Bicycle and Pedestrian Funding Program. The projects included in this plan are regionally significant projects that require at least partial regional funding. This plan is not fiscally constrained, so it contains at least 20 years’ worth of projects.

LOCAL

City of Elk Grove General Plan

The most recent City General Plan was adopted in December 2019. The Mobility chapter of the General Plan contains policies designed to further the City's mobility strategy. The Mobility chapter incorporates and expands the City's complete streets policies; supports key implementation tools, such as the Bicycle, Pedestrian, and Trails Master Plan, the Transportation Analysis Guidelines, and the Climate Action Plan; and identifies measures to support alternative transportation investments, as well as transit-friendly and active transportation-friendly development (City of Elk Grove 2019a). It should be noted that a project's effect on automobile delay is no longer a consideration when identifying a significant impact under CEQA; thus, City General Plan policies related to intersection and roadway performance are not included here.

The following policies and standards related to transportation are relevant to the CEQA analysis of the Project:

- ▶ **Policy MOB-1-1:** Achieve State-mandated reductions in VMT by requiring land use and transportation projects to comply with the following metrics and limits. These metrics and limits shall be used as thresholds of significance in evaluating projects subject to CEQA.

Projects that do not achieve the daily VMT limits outlined below shall be subject to all feasible mitigation measures necessary to reduce the VMT for, or induced by, the project to the applicable limits. If the VMT for or induced by the project cannot be reduced consistent with the performance metrics outlined below, the City may consider approval of the project, subject to a statement of overriding considerations and mitigation of transportation impacts to the extent feasible, provided some other stated form of public objective including specific economic, legal, social, technological, or other considerations is achieved by the project.

- (a) **New Development** – Any new land use plans, amendments to such plans, and other discretionary development proposals (referred to as "development projects") are required to demonstrate a 15 percent reduction in VMT from existing (2015) conditions. To demonstrate this reduction, conformance with the following land use and cumulative VMT limits is required:
 - **Land Use** – Development projects shall demonstrate that the VMT produced by the project at buildout is equal to or less than the VMT limit of the project's General Plan land use designation, as shown in Table 6-1 [presented as Table 3.13-1 in this EIR], which incorporates the 15 percent reduction from 2015 conditions.

Table 3.13-1 Vehicle Miles Traveled by Land Use Designation

Land Use Designation	VMT Limit (Daily Per Service Population)
Commercial and Employment Land Use Designations	
Community Commercial	41.6
Regional Commercial	44.3
Employment Center	47.1
Light Industrial/Flex	24.5
Light Industrial	24.5
Heavy Industrial	39.5
Mixed Land Use Designations	
Village Center Mixed Use	41.6
Residential Mixed Use	21.2
Public/Quasi Public and Open Space Land Use Designations	
Parks and Open Space ¹	0.0
Resource Management and Conservation ¹	0.0
Public Services	53.1

Land Use Designation	VMT Limit (Daily Per Service Population)
Residential Land Use Designations	
Rural Residential	34.7
Estate Residential	49.2
Low Density Residential	21.2
Medium Density Residential	20.9
High Density Residential	20.6
Other Land Use Designations	
Agriculture	34.7

Note: VMT = vehicles miles traveled.

¹ These land use designations are not anticipated to produce substantial VMT, because they have no residents and few to no employees. These land use designations therefore have no limit and are exempt from analysis.

Source: City of Elk Grove 2019a

- **Cumulative for Development Projects in the Existing City** – Development projects within the existing (2017) City limits shall demonstrate that cumulative VMT within the City including the project would be equal to or less than the established Citywide cumulative limit of 6,367,833 VMT (total daily VMT).
- **Cumulative for Development Projects in Study Areas** – Development projects located in Study Areas shall demonstrate that cumulative VMT within the applicable Study Area would be equal to or less than the established limit shown in Table 6-2 [presented as Table 3.13-2 in this SEIR].

Table 3.13-2 Study Area Total Vehicle Miles Traveled Daily Limits

Study Area	VMT Limit (Total VMT at Buildout)
North Study Area	37,622
East Study Area	420,612
South Study Area	1,311,107
West Study Area	705,243

Note: VMT = vehicles miles traveled.

Source: City of Elk Grove 2019a

- ▶ **Policy MOB-1-2:** Consider all transportation modes and the overall mobility of these modes when evaluating transportation design and potential impacts during circulation planning.
- ▶ **Policy MOB-1-3:** Strive to implement the roadway performance targets (RPT) for operations of roadway segments and intersections, while balancing the effectiveness of design requirements to achieve the targets with the character of the surrounding area as well as the cost to complete the improvement and ongoing maintenance obligations. The Transportation Network Diagram reflects the implementation of the RPT policy at a macro level; the City will consider the specific design of individual segments and intersections in light of this policy and the guidance in the Transportation Network Diagram.

To facilitate this analysis, the City shall use the following guidelines or targets. Deviations from these metrics may be approved by the approving authority (e.g., Zoning Administrator, Planning Commission, City Council).

(a) Vehicular Design Considerations – The following targets apply to vehicular mobility:

- **Intersection Performance** – Generally, and except as otherwise determined by the approving authority or as provided in this General Plan, the City will seek to achieve, to the extent feasible and desired, the peak-hour delay targets identified in [General Plan] Table 6-3.

- **Roadway Performance** - Generally, and except as otherwise determined by the approving authority or as provided in this General Plan, the City will seek to achieve, to the extent feasible and desired, the average daily traffic design targets identified in [General Plan] Table 6-4.
 - **Pedestrian and Bicycle Performance** – The City will seek the lowest stress scores possible for pedestrian and bicycle performance after considering factors including design limitations and financial implications.
- ▶ **Policy MOB-3-1:** Implement a balanced transportation system using a layered network approach to building complete streets that ensure the safety and mobility of all users, including pedestrians, cyclists, motorists, children, seniors, and people with disabilities.
- ▶ **Policy MOB-3-2:** Support strategies that reduce reliance on single-occupancy private vehicles and promote the viability of alternative modes of transport.
 - **Standard MOB-3-2.a:** Require new development to install conduits for future installation of electric vehicle charging equipment.
- ▶ **Policy MOB-3-3:** Whenever capital improvements that alter street design are being performed within the public right-of-way, retrofit the right-of-way to enhance multimodal access to the most practical extent possible.
- ▶ **Policy MOB-3-7:** Develop a complete and connected network of sidewalks, crossings, paths, and bike lanes that are convenient and attractive, with a variety of routes in pedestrian-oriented areas.
- ▶ **Policy MOB-3-8:** Provide a thorough and well-designed wayfinding signage system to help users of all modes of travel navigate the City in an efficient manner.
- ▶ **Policy MOB-3-10:** Design and plan roadways such that the safety of the most vulnerable user is considered first using best practices and industry design standards.
- ▶ **Policy MOB-3-11:** Consider the safety of schoolchildren as a priority over vehicular movement on all streets within the context of the surrounding area, regardless of street classifications. Efforts shall specifically include tightening corner-turning radii to reduce vehicle speeds at intersections, reducing pedestrian crossing distances, calming motorist traffic speeds near pedestrian crossings, and installing at-grade pedestrian crossings to increase pedestrian visibility.
- ▶ **Policy MOB-3-12:** Provide for safe and convenient paths and crossings along major streets within the context of the surrounding area, taking into account the needs of the disabled, youth, and the elderly.
- ▶ **Policy MOB-3-13:** Continue to design streets and approve development applications in a manner that reduces high traffic flows and parking demand in residential neighborhoods.
- ▶ **Policy MOB-3-17:** Ensure new multifamily and commercial developments provide bicycle parking and other bicycle support facilities appropriate for the users of the development.
- ▶ **Policy MOB-4-1:** Ensure that community and area plans, specific plans, and development projects promote context-sensitive pedestrian and bicycle movement via direct, safe, and pleasant routes that connect destinations inside and outside the plan or project area. This may include convenient pedestrian and bicycle connections to public transportation.
- ▶ **Policy MOB-5-1:** Support a pattern of land uses and development projects that are conducive to the provision of a robust transit service. Consider amendments to the land use plan, as appropriate, that increase the density and intensity of development along the City's fixed transit alignment and other major transit corridors.
- ▶ **Policy MOB-5-4:** Support mixed-use and high-density development applications close to existing and planned transit stops.
- ▶ **Policy MOB-5-6:** The City shall work to incorporate transit facilities into new private development and City project designs including incorporation of transit infrastructure (e.g. electricity and fiber-optic cable), alignments for transit route extensions, new station locations, bus stops, and transit patron waiting area amenities (e.g. benches and real-time traveler information screens).

- ▶ **Policy MOB-5-7:** Provide the appropriate level of transit service in all areas of Elk Grove, through fixed-route service in urban areas, and complementary demand response service in rural areas, so that transit-dependent residents are not cut off from community services, events, and activities.
- ▶ **Policy MOB-7-4:** Require new development projects to provide funding or to construct roadway/intersection improvements to implement the City's Transportation Network Diagram. The payment of adopted roadway development or similar fees, including the City Roadway Fee Program and the voluntary I-5 Subregional Fee, shall be considered compliant with the requirements of this policy with regard to those facilities included in the fee program, provided the City finds that the fee adequately funds required roadway and intersection improvements. If payment of adopted fees is used to achieve compliance with this policy, the City may also require the payment of additional fees if necessary to cover the fair share cost of facilities not included in the fee program.
- ▶ **Policy NR-4-4:** Promote pedestrian/bicycle access and circulation to encourage residents to use alternative modes of transportation in order to minimize direct and indirect emissions of air contaminants.
- ▶ **Policy NR-4-5:** Emphasize demand management strategies that seek to reduce single-occupant vehicle use in order to achieve State and federal air quality plan objectives.

City of Elk Grove Transportation Analysis Guidelines

The *City of Elk Grove Transportation Analysis Guidelines* (City of Elk Grove 2019b) establish the protocol for transportation analysis studies and reports based on the current state-of-the-practice in transportation planning and engineering. As detailed above, a project's effect on automobile delay is no longer a consideration when identifying a significant impact under CEQA; thus, the portions of the *Transportation Analysis Guidelines* not directly applicable to CEQA are not included here. The *Elk Grove Housing Element Update VMT Analysis* memorandum is included as Appendix D and addresses the VMT-based CEQA analysis criteria detailed in the *Transportation Analysis Guidelines*.

The *Transportation Analysis Guidelines* includes guidance for transportation analysis as it pertains to the City General Plan VMT policy significance thresholds (i.e., General Plan Policy MOB-1-1) for CEQA analysis of future projects. The *Transportation Analysis Guidelines* include guidance and requirements for VMT analysis of development projects, including project screening, analysis methodology, significance criteria, impact assessment, and mitigation strategies.

The *Transportation Analysis Guidelines* and City General Plan specify total daily VMT and VMT per service population as the basis for VMT analysis. The following describes these two VMT metrics and their intended use:

- ▶ **VMT per service population:** Includes the sum of all VMT produced by individual land uses in a project, divided by the sum of total residents living in the project. The VMT per service population metric is used to assess a project against specific land use VMT limits. The Project includes multi-family residential land uses; and thus, the Project is compared to the high density residential VMT limit.
- ▶ **Total daily VMT:** Includes the sum of all daily VMT produced by all uses within the City and the applicable Study Area. Since the Project is located exclusively within the City limits, the Citywide cumulative VMT limit that is outlined in Policy MOB-1-1(a)(ii) is used to assess the Project; the study area VMT limits are not considered. The City refers to this as the cumulative VMT impact.

Additional details related to the VMT calculation process are included in Appendix E of the City of Elk Grove *Transportation Analysis Guidelines*.

The *Transportation Analysis Guidelines* also include guidelines and requirements for multimodal (bicycle, pedestrian, and transit) transportation analysis, hazards related to design, on-site circulation, and construction. However, because specific details about how the housing sites would be developed (e.g., paths, building locations) are unknown at this time, the effects are addressed programmatically in Section 3.13.3, "Environmental Impacts and Mitigation Measures."

City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan

In July 2014, the City Council adopted the *Bicycle, Pedestrian, and Trails Master Plan* (City of Elk Grove 2014), which is intended to guide and influence pedestrian, bicycle, and trail policies, programs, and development standards to make biking and walking in the City more safe, comfortable, convenient, and enjoyable for all community members. The

ultimate goal of the master plan is to increase the number of persons who walk and bicycle for transportation to work, school, and errands and for recreation. The plan identifies existing facilities, opportunities, constraints, and destination points for bicycle users and pedestrians. The *Bicycle, Pedestrian, and Trails Master Plan* is currently being updated by the City. Subsequent development and projects associated with implementation of the Housing Element and Safety Element Update would be subject to the most recent adopted version of this document at the time of project consideration.

3.13.2 Environmental Setting

This section describes the existing environmental setting, which is the baseline scenario against which Project-specific impacts are evaluated. The environmental setting for transportation includes descriptions of roadway, transit, bicycle, and pedestrian facilities.

The portions of the existing setting related to travel characteristics, roadway system – roadway characteristics, bicycle and pedestrian facilities, and transit facilities provided on pages 5.13-1 through 5.13-22 of the General Plan EIR remain applicable to this analysis.

ROADWAY SYSTEM

The roadway network serving the City consists of the following roadway classifications:

- ▶ **Principal arterials:** Principal arterials provide limited access on high-speed roads with a limited number of driveways and intersections. Principal arterials also allow bicycles, and pedestrians may be permitted in limited locations. Principal arterials are generally designed for longer trips at the county or regional level.
- ▶ **Major arterials:** Major arterials provide controlled access for all transportation modes to enter and leave the urban area. In addition, significant intra-area travel, such as between residential areas and commercial or business areas, should be served by this system. Major arterials can include sidewalks for pedestrian connections, linking land uses to transit. They may have street parking or bike lanes. Arterials range in size from two to eight lanes. Major arterials in the rural area are subject to the separate Rural Roads Improvement Standards and may have separate pedestrian pathways, but no sidewalks.
- ▶ **Minor arterials/collectors:** Minor arterials/collectors are two-lane roadways providing access to all transportation modes, with a focus on local access. Pedestrian connections link land uses to local destinations and transit. The right-of-way associated with arterials/collectors may feature medians, parking lanes, and bike lanes. Arterials/collectors in the rural area are subject to the separate Rural Roads Improvement Standards and may have separate pedestrian and multiuse pathways, but no sidewalks, and may have reduced speed requirements. This classification also includes primary and secondary residential streets.
- ▶ **Local roads:** Local roads provide direct access to most properties and provide access to the higher roadway classifications described above. They are generally designed to discourage through traffic. Local roads are typically two lanes and are designed for low vehicle speeds. In the urban area of the City, they include pedestrian sidewalks. In the rural area, there are no sidewalks.

TRANSIT SYSTEM

Transit within the City consists of the City e-tran fixed-route bus system, operated under contract to the City by Sacramento Regional Transit. E-tran service operates both local and commuter services, and routes are coordinated with buses, light rail, and South County Transit/Link to areas outside Elk Grove. E-tran operates seven local routes within Elk Grove and 10 commuter routes with service to downtown Sacramento and Rancho Cordova. E-tran also operates a paratransit service called e-van that addresses federal Americans with Disabilities Act (ADA) requirements for fixed-route service and primarily serves ADA-eligible passengers.

BICYCLE AND PEDESTRIAN SYSTEM

The bicycle network serving the City consists of the following bicycle facility classifications:

- ▶ **Class I Bike Paths:** Class I bike paths provide a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross-flow minimized.
- ▶ **Class II Bike Lanes:** Class II bike lanes are striped lanes for one-way bike travel on a street or highway.
- ▶ **Class III Bike Routes:** Class III bike routes provide for shared use with pedestrians or motor vehicle traffic.
- ▶ **Class IV Bikeways:** Class IV bikeways are on-street bike lanes that are physically separated from the adjacent general travel lane.

The bicycle network in the City primarily consists of Class II bicycle lanes that are striped for one-way bicycle travel; however, there are several Class I bike paths, particularly along area creeks and drainage channels. The City has also started to implement new Class IV bikeways along select corridors, including Franklin Boulevard.

3.13.3 Environmental Impacts and Mitigation Measures

This section describes the analysis techniques, assumptions, and results used to identify impacts of the Project on the transportation system. Transportation impacts are described and assessed, and mitigation measures are recommended for impacts identified as significant or potentially significant.

METHODOLOGY

The following methodologies were used to evaluate impacts of the Project.

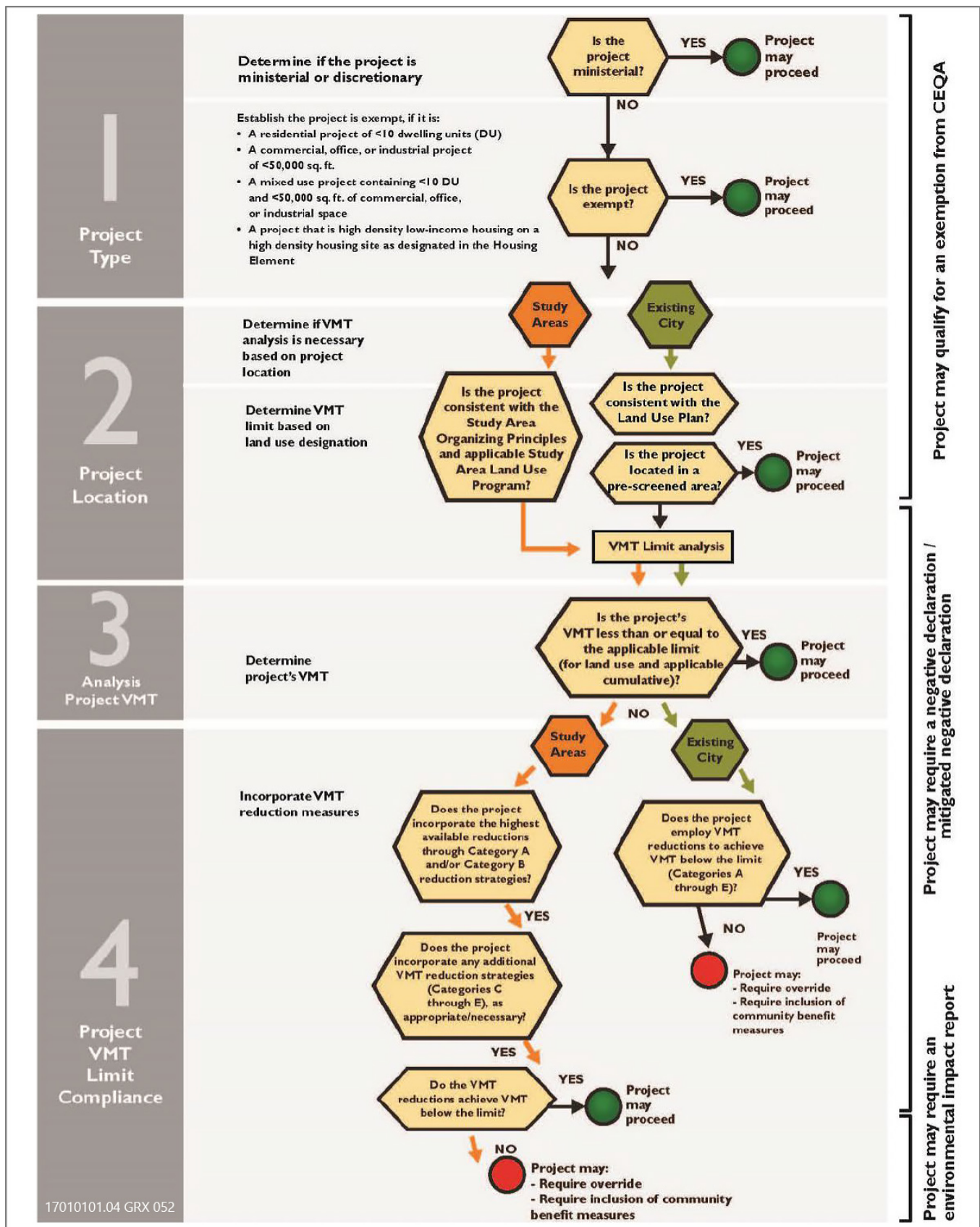
VMT Analysis Methodology

The City uses VMT per service population and total daily VMT as the basis for VMT analysis. The two VMT metrics and their intended application to project-level VMT analysis are described in Section 3.13.1, "Regulatory Setting," above.

The City desires to achieve a reduction in VMT through a combination of land use and mobility actions and has developed a VMT analysis process for projects depicted in Figure 3.13-1. The VMT analysis process for projects as detailed in Figure 3.13-1 includes the following four steps:

- ▶ Step 1 (Project Type) – Determine if the project is ministerial or discretionary or if the project is exempt from VMT analysis.
- ▶ Step 2 (Project Location) – Determine if VMT analysis is necessary based on project location and determine the Project's VMT limit by land use designation.
- ▶ Step 3 (Analyze Project VMT) – Determine the Project's VMT and compare to the VMT limit by land use designation (from Step 2) to determine if VMT mitigation is necessary.
- ▶ Step 4 (Project VMT Limit Compliance) – Identify VMT reduction mitigation measures and significance of VMT impacts with mitigation.

Project-generated VMT was estimated using a modified version of SACOG's 2016 SACSIM regional travel demand forecasting model developed for the analysis of the City General Plan Update (2019) and subsequently updated for clarity. Additional details related to the VMT quantification process and potential limitations of the model are included in Appendix D.



Source: Image produced and provided by the City of Elk Grove in 2019

Figure 3.13-1 VMT Evaluation Process

The VMT analysis evaluated the proposed rezoning of housing sites under the Housing Element Update (see Table 2-2 and 2-3) as well as additional housing site capacity of for up to 7,034 housing units (see Appendix D: scenario 2).

The Safety Element Update policies addresses evacuation routes and identifies residential development in hazards areas with limited access. This update could potentially result in emergency access improvements that would not create vehicle trips that would be subject to the City's VMT standards. Therefore, no VMT analysis of the Safety Element Update is provided.

VMT Impact Analysis

The Project must demonstrate that the Project-generated VMT is within both the land use and cumulative VMT thresholds established in the General Plan such that:

1. VMT per service population at buildout is equal to or less than the VMT per service population limit of the applicable land use designation as defined in Table 6-1 of the City General Plan (presented as Table 3.13-1 in this EIR); and
2. The Project-generated VMT would not cause the City, cumulatively at General Plan buildout, to exceed the City's established total VMT limit for its study area as defined in Table 6-2 of the City General Plan (presented as Table 3.13-2 in this EIR).

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate Project impacts on transportation under CEQA are based on Appendix G of the State CEQA Guidelines, as well as thresholds of significance adopted in the City General Plan and the City Transportation Analysis Guidelines.

The following describes the significance criteria used to identify impacts on the transportation for the proposed Project.

VMT

An impact on VMT would be significant if implementation of the Project would:

- ▶ result in an exceedance of the VMT limit of the Project's General Plan land use designation (i.e., High Density Residential) of 20.6 daily VMT per service population, as shown in Table 3.13-1, which incorporates the 15-percent reduction from 2015 conditions, or
- ▶ result in an exceedance of the established Citywide cumulative limit of 6,367,833 total daily VMT.

Transit, Bicycle, and Pedestrian Facilities

An impact on transit, bicycle, and pedestrian facilities would be significant if implementation of the Project would:

- ▶ conflict with an applicable program, plan, ordinance, or policy establishing measures of effectiveness for the performance of addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Transportation Hazards Related to a Geometric Design Feature or Incompatible Uses

An impact on transportation hazards related to a geometric design feature would be significant if implementation of the Project would:

- ▶ result in designs for on-site circulation, access, and parking areas that fail to meet City or industry standard design guidelines.

Emergency Access

An impact on emergency access would be significant if implementation of the Project would:

- ▶ result in inadequate emergency access.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.13-1: Result in an Exceedance of City of Elk Grove General Plan VMT Thresholds

General Plan Impact 5.13.2 identified that implementation of the General Plan would result in increased VMT that would be significant and unavoidable. Project-generated VMT per service population associated with some of the housing sites rezoned under the Housing Element Update would result in an exceedance of the City’s VMT per service population threshold for the High Density Residential land use designation (i.e., 20.6 VMT). The addition of Project-generated total daily VMT within the City could also result in an exceedance of the established Citywide limit of 6,367,833 VMT. Therefore, implementation of the Project could result in substantially more severe VMT impacts than identified in the General Plan EIR. Implementation of mitigation could potentially reduce the extent of this impact but would not reduce the VMT below the City VMT standards. Implementation of the Safety Element would not result in changes in planned land uses or roadway facilities that would alter VMT. Therefore, the Project would result in a **significant and unavoidable** impact to VMT.

VMT by Land Use Designation

Subsequent housing projects associated with the implementation of the Housing Element Update would have a General Plan land use designation of High Density Residential; thus, as shown in Table 3.13-1 and Policy MOB-1-1 of the City General Plan, the VMT limit of the Project would be 20.6 daily VMT per service population. As noted above, the Project-generated VMT was modeled outlined above using a modified version of SACOG’s SACSIM regional travel demand forecasting model. The VMT per service population calculations do not incorporate VMT reductions associated with any potential multi-modal improvements that individual development projects would be subject to. Refer to Appendix D for detailed VMT modeling data and technical calculations for the proposed Housing Element Update (Appendix D: scenario 2).

As shown in Table 3.13-3, the average VMT per service population (i.e., residents) associated with the implementation of the Housing Element Update would not exceed the City’s VMT threshold for the High Density Residential land use designation (i.e., 20.6 VMT).

Table 3.13-3 Vehicle Miles Traveled by Land Use Designation Limits – Housing Element Update Buildout Conditions

Land Use Designation	VMT Per Service Population		Limit Exceeded?
	Limit	Buildout Average	
High Density Residential	20.6	19.3	No

Note: VMT = vehicles miles traveled.

Source: Fehr & Peers 2020

Table 3.13-4 identifies housing sites proposed for rezoning that would individually exceed the City’s VMT per service population limit (i.e., 20.6 VMT).

Table 3.13-4 VMT Performance by Site (for sites that individually exceed the VMT limit)

Site ID	VMT Performance				
	Zoning	Dwelling Units	Service Population	Daily VMT	VMT Per Service Population
E-6	SEPA-HDR (25-30)	233	538	11,112	20.7
E-12	SEPA-HDR (25-30)	233	525	11,654	22.2
E-15	RD-30	83	193	4,231	22.0
C-1	RD-30	289	668	13,800	20.7
C-4	RD-30	202	460	9,810	21.3
C-17	RD-30	135	313	6,869	22.0
C-22	RD-25	52	108	2,293	21.3
C-23	RD-25	21	105	2,308	22.0
C-25	RD-25	129	273	5,989	22.0

Source: Fehr & Peers 2020

Citywide VMT Limits

As detailed above and in Policy MOB-1-1 of the City General Plan, projects within the existing (2019) City limits are required to demonstrate that the VMT within the City, including implementation of the Housing Element Update, would be equal to or less than the City’s established total VMT limit of 6,367,833. The proposed housing sites would occur within the City limits; thus, using the same modeling and forecasting tools and data as detailed above, the total daily VMT of the proposed Housing Element Update at full buildout was modeled and is estimated to generate 6,446,861 total VMT at buildout (79,028 above the City limit of 6,367,833). The VMT per service population calculation for the housing sites did not incorporate VMT reductions associated with any potential multi-modal improvements that individual development projects would be subject to. Refer to Appendix D (scenario 2) for detailed VMT modeling data and technical calculations.

Summary

As detailed above, Project-generated VMT per service population would result in an exceedance of the VMT per service population threshold for the High Density Residential land use designation (i.e., 20.6 VMT) for some of the housing sites proposed for rezoning. The increase of total daily VMT within the City resulting from implementation of the Project as a whole would result in an exceedance of the established Citywide limit of 6,367,833 VMT. Therefore, implementation of the Project would result in substantially more severe VMT impacts than identified in the General Plan EIR.

Implementation of the Safety Element would not result in changes in planned land uses or roadway facilities that would alter VMT because it would not modify the General Plan transportation plan or modify any existing or otherwise planned transportation facilities.

Implementation of Mitigation Measure 3.13-1 would reduce total daily VMT. However, because it cannot be assured that individual housing sites would be able to achieve their required reduction in total daily VMT within the City, the impact would remain **significant and unavoidable**.

Mitigation Measures

Mitigation Measure 3.13-1: Implement VMT Reduction Strategies

The *City of Elk Grove Transportation Analysis Guidelines* includes a set of accepted and recommended VMT reduction strategies shown in Table 3.13-5. Additionally, Table 3.13-5 shows the range of potential VMT reduction for the housing sites is identified for each category, along with the cross-category maximum that is applicable when multiple strategies are applied in combination. The application of Category E (In-Lieu Fee) is not feasible because such a fee cannot be calculated at this time.

Table 3.13-5 VMT Reduction Strategies

Strategy Category	Description	Range of Potential VMT Reduction	
		Category	Cross Category
A (Land Use/Location)	Land use-related components such as project density, location, and efficiency related to other housing and jobs; and diversity of uses within the project. Also includes access and proximity to destinations, transit stations, and active transportation infrastructure.	Up to 21.3%	15% Maximum
B (Site Enhancement)	Establishing or connecting to a pedestrian/bike network; traffic calming within and in proximity to the project; car sharing programs; shuttle programs.	Up to 5.7%	
C (Transit System Improvements ¹)	Improvements to the transit system including reach expansion, service frequency, types of transit, access to stations, station safety and quality, parking (park-and-ride) and bike access (to transit itself and parking), last-mile connections.	Up to 10.5%	
D (Commute Trip Reduction ¹)	<u>For residential:</u> transit fare subsidies, education/training of alternatives, rideshare programs, shuttle programs, bike share programs. <u>For employer sites:</u> transit fare subsidies, parking cash-outs, paid parking, alternative work schedules/telecommute, education/training of alternatives, rideshare programs, shuttle programs, bike share programs, end of trip facilities.	Up to 30.0%	
E (In-Lieu fee)	A fee is levied that is used to provide non-vehicular transportation services that connect project residents to areas of employment or vice versa. This service may be provided by the project applicant in cooperation with major employers.	Up to 10.5%	

Note: VMT = vehicles miles traveled.

¹Can be achieved through TDM program measures.

Source: Fehr & Peers 2020

Implement Site Enhancement, Transit System Improvement, and Commute Trip VMT Reduction Strategies

Sites E-6, E-12, E-15, C-1, C-4, C-17, C-22, C-23, and C-25 shall implement one or more of the following VMT reductions strategies documented in the City of Elk Grove Transportation Analysis Guidelines to achieve VMT reductions for the housing sites such that their individual project-level VMT would not exceeded 20.6:

- ▶ Site Enhancement: Establishing or connecting to a pedestrian/bike network; traffic calming within and in proximity to the project; car sharing programs; shuttle programs. The range of potential VMT reduction associated with this strategy is up to 5.7 percent.
- ▶ Transit System Improvements: Improvements to the transit system including reach expansion, service frequency, types of transit, access to stations, station safety and quality, parking (park-and-ride) and bike access (to transit itself and parking), last-mile connections. These reductions can be achieved through TDM program measures. The range of potential VMT reduction associated with this strategy is up to 10.5 percent.
- ▶ Commute Trip Reduction (for residential sites): Transit fare subsidies, education/training of alternatives, rideshare programs, shuttle programs, bike share programs. These reductions can be achieved through TDM program measures. The range of potential VMT reduction associated with this strategy is up to 30 percent.

Application of these VMT reduction strategies shall consist of, prior to approval of design review, the project applicants for subsequent projects preparing and submitting a VMT Reduction Strategy Technical Memorandum to the satisfaction of the Public Works Director (or their designee) documenting the VMT strategies detailed above to reduce the project’s VMT.

Significance after Mitigation

Implementation of Mitigation Measure 3.13-1 would reduce the project-level VMT impact for the specific sites to a less than significant level, but would not address the broader Citywide VMT, which is driven by several factors including land uses on sites adjoining or proximate to the housing sites. Changes in the location and use of land are inconsistent with the Project objectives. An in-lieu fee is not feasible because the specific improvements that would be necessary to mitigate the impact have not been identified. Therefore, the impact to Citywide VMT remains **Significant and unavoidable**.

Impact 3.13-2: Impacts on Transit, Bicycle, and Pedestrian Facilities

General Plan EIR Impact 5.13.7 identified that implementation of the General Plan would not result in conflicts with plans, policies, or programs for transit, bicycle, and pedestrian facilities. Implementation of the Housing Element and Safety Element Update would be subject to and implement General Plan policies applicable to transit, bicycle, and pedestrian facilities and service. Additionally, subsequent development projects under the Housing Element would be subject to all applicable City guidelines, standards, and specifications related to transit, bicycle, or pedestrian facilities. Therefore, there is no new significant effect and the impact is not more severe than what was addressed in the General Plan EIR. Project impacts would be **less than significant**.

Subsequent projects under the Housing Element would be subject to, and designed in accordance with City plans, policies, and programs for transit, bicycle, and pedestrian facilities. Specifically, implementation of the Housing Element and Safety Element Update would be subject to and implement General Plan and *Bicycle, Pedestrian, and Trails Master Plan* policies applicable to transit, bicycle, and pedestrian facilities and service. Additionally, subsequent project site designs would be required to incorporate improvements consistent with applicable City guidelines, standards, and specifications related to transit, bicycle, or pedestrian facilities.

General Plan Policy MOB-1-2 encourages consideration of all transportation modes when evaluating transportation design. Policy MOB-3-1 calls for implementation of a balanced transportation system to ensure the safety and mobility of pedestrians, cyclists, motorists, children, seniors, and people with disabilities. To encourage the use of transit, General Plan Policy MOB-5-4 supports mixed-use and high-density development applications close to existing and planned transit stops, while Policies MOB-5-6 and MOB-5-7 encourage the provision of the appropriate level of transit service in all areas of the City and the extension of bus rapid transit and/or light rail service (referred to as "fixed transit") to existing and planned employment centers. Policies MOB-3-7 and MOB-3-8 call for a complete and connected network of sidewalks, crossings, paths, and bike lanes and a wayfinding signage system. As detailed in Section 3.13.1, "Regulatory Setting," the *Bicycle, Pedestrian, and Trails Master Plan* is currently being updated by the City. Therefore, subsequent projects covered from implementation of the Housing Element and Safety Element Update would be subject to the most recent adopted version of this document at the time of project consideration. Additionally, subsequent development projects under the Housing Element would be subject to and designed in accordance with all applicable City bicycle, pedestrian, and transit guidelines, standards, and specifications. Finally, Policy H-1-3 of the Housing Element would promote development where affordable housing in proximity to public transit or bus service.

Therefore, with implementation of the General Plan, *Bicycle, Pedestrian, and Trails Master Plan*, and Housing Element and Safety Element Update policies identified above, and all applicable City guidelines, standards, and specifications, the proposed Project would not conflict with adopted policies, plans, or programs for transit, bicycle, or pedestrian facilities. Therefore, there is no new significant effect and the impact is not more severe than what was addressed in the General Plan EIR. The Project would result in a **less-than-significant** impact to transit, bicycle, and pedestrian facilities.

Mitigation Measures

No additional mitigation is required beyond compliance with the *Bicycle, Pedestrian, and Trails Master Plan* and General Plan Policies MOB-1-2, MOB-3-1, MOB-3-7, MOB-3-8, MOB-5-4, MOB-5-6, MOB-5-7, and H-1-3.

Impact 3.13-3: Substantially Increase Hazards Because of a Design Feature or Incompatible Uses

No significant design hazard impacts were identified in the General Plan EIR. Implementation of the Housing Element and Safety Element Update would be subject to, and constructed in accordance with, applicable roadway design and safety guidelines and General Plan policies. Therefore, the Project would not increase hazards because of a roadway design feature or incompatible uses and there is no new significant effect and the impact is not more severe than what was addressed in the General Plan EIR. The Project would result in a **less-than-significant** impact to transportation hazards.

Subsequent projects under the Housing Element and Safety Element Update, including housing site development and emergency access improvements would be subject to, and designed in accordance with City standards and specifications which address potential design hazards including sight distance, driveway placement, and signage and striping. Additionally, any new transportation facilities, or improvements to such facilities associated with subsequent projects would be constructed based on industry design standards and best practices consistent with Policy MOB-3-10, which stresses that the safety of the most vulnerable user is a priority. Therefore, there is no new significant effect and the impact is not more severe than that what was addressed in the General Plan EIR. The Project would result in a **less-than-significant** impact to transportation hazards.

Mitigation Measures

No additional mitigation is required beyond General Plan Policy MOB-3-10 and compliance with City standards and specifications.

Impact 3.13-4: Result in Inadequate Emergency Access

The internal circulation network and any changes to the external circulation network associated with the implementation of subsequent projects under the Housing Element Update would be subject to review by the City of Elk Grove and responsible emergency service agencies; thus, ensuring that the Project would be designed to meet all applicable emergency access and design standards and adequate emergency access would be provided. Implementation of the Safety Element Update policies would potentially result in emergency access improvements that would enhance emergency access. There is no new significant effect and the impact is not more severe than what was addressed in the General Plan EIR. The Project would result in a **less-than-significant** impact.

Emergency access of subsequent projects under the Housing Element Update would be subject to review by the City of Elk Grove and responsible emergency service agencies including the City and Cosumnes Community Services District Fire Department; thus, ensuring the project would be designed to meet all emergency access and design standards. Implementation of the Safety Element Update policies could potentially result in emergency access improvements that would enhance emergency access. Therefore, adequate emergency access would be provided and there is no new significant effect. Additionally, the impact is not more severe than the impact identified in the General Plan EIR. This impact would be **less than significant**.

Mitigation Measures

No additional mitigation is required beyond compliance with City and Cosumnes Community Services District Fire Department standards.

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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.

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, Arson	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).

4 CUMULATIVE IMPACTS

4.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This Draft SEIR provides an analysis of cumulative impacts of the proposed City of Elk Grove Housing Element and Safety Element Update (Project), as required by Section 15130 of the State CEQA Guidelines. The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant, and second, to determine whether the incremental contribution to any such cumulatively significant impacts of the Project would be “cumulatively considerable” (and thus significant). (See State CEQA Guidelines Sections 15130[a]–[b], Section 15355[b], Section 15064[h], and Section 15065[c]; and *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create a broad context in which to assess cumulative impacts, viewed on a geographic scale beyond the Project site itself, and then to determine whether the Project’s incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., “cumulatively considerable”).

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.” Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (State CEQA Guidelines Section 15355[b]).

4.2 CUMULATIVE IMPACT ANALYSIS METHODOLOGY

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this Draft SEIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, the following:

[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A proposed project is considered to have a significant cumulative effect if:

- ▶ the cumulative effects of development without the project are not significant and the project’s additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact, or
- ▶ the cumulative effects of development without the project are already significant and the project contributes measurably to the effect.

The term “measurably” is subject to interpretation. The standards used herein to determine measurability are that the impact must be noticeable to a reasonable person or must exceed an established threshold of significance (defined throughout the resource sections in Chapter 3 of this Draft SEIR). This cumulative analysis also assumes that all mitigation measures identified in Chapter 3 to mitigate Project impacts are adopted and implemented and that all elements of the design-build performance criteria that would minimize environmental effects are implemented.

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.

The cumulative impact analysis provided in this chapter evaluates whether the Housing Element and Safety Element Update could result in potentially new cumulatively considerable impacts or an increase in the severity of previously identified cumulative impacts that were identified in the General Plan EIR pursuant to State CEQA Guidelines Section 15162(b).

4.3 CUMULATIVE SETTING

The 2019 *City of Elk Grove General Plan* is a broad framework for planning the future of the City. It is the official policy statement of the City Council that is used to guide the private and public development of the City in a manner to gain the maximum social and economic benefit to the citizens. The planning area for the General Plan includes both land within City boundaries (42 square miles, or 34,956 acres) and lands outside the City in unincorporated Sacramento County to the south and east (12.2 square miles, or 8,008 acres) in four study areas.

Development within the current City limits is anticipated to generate a maximum of 72,262 dwelling units, 233,406 residents, and 81,784 jobs. Assuming future annexation and development of the study areas, buildout under the 2019 General Plan would result in a maximum of 102,865 dwelling units, 332,254 residents, and 122,155 jobs (City of Elk Grove 2019:Table 3-2). The EIR for the General Plan analyzes the full development potential of the General Plan Land Use Diagram, including the study areas, compared to existing (2015) conditions (City of Elk Grove 2018). The City is currently considering annexation of an approximately 390-acre site area on the southeast side of Grant Line Road at the intersection with Waterman Road. Proposed land uses in this area include industrial, commercial, mixed use, and parks and open space.

4.4 ANALYSIS OF CUMULATIVE IMPACTS

Because the General Plan is essentially a set of guidelines for projects that could occur within the timeframe of the General Plan, the Plan itself represents the cumulative development scenario for the reasonably foreseeable future in the City. Therefore, the analysis presented in this Draft SEIR generally represents a cumulative analysis of Elk Grove as a whole over the General Plan planning horizon described above. In instances where other cumulative development in neighboring jurisdictions or within the region as a whole could contribute to impacts generated by the proposed General Plan, those impacts, as well as the context, are discussed in the cumulative impact discussion that follows the project-specific impacts in each section.

As indicated above, 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, as well as 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.

The following sections contain a discussion of the cumulative effects anticipated from implementation of the Housing Element and Safety Element Update, together with related projects and planned development, for each of the environmental issue areas evaluated in this Draft SEIR. The analysis herein analyzes whether, after implementation of Project-specific mitigation that minimize environmental effects, the residual impacts of the Project would cause a cumulatively significant impact or would contribute considerably to existing or anticipated (without the Project) cumulatively significant effects that were identified in General Plan EIR. Where the Project would so contribute, additional mitigation is recommended where feasible.

Aesthetics

General Plan EIR Impact 5.1.4 evaluated whether implementation of the General Plan, in addition to other reasonably foreseeable projects in the region, would introduce new development into undeveloped agricultural and rural areas that would have a cumulatively considerable contribution to impacts on visual character. The analysis noted that although individual development projects would be responsible for incorporating mitigation to minimize their visual impacts, the net result would be a general conversion of areas with an open, rural character to a more urban and developed character. The change in character associated with that development would be a significant cumulative impact. The General Plan would be a continuation of the overall urbanization of the City and would extend the City's developed area along the urban edge. Therefore, the General Plan's contribution to the change in character is cumulatively considerable and significant and unavoidable.

Impact 4-1: Cumulative Visual Resource Impacts

As identified in Impact 3.1-1 of this Draft SEIR, housing sites and emergency access improvements are located in areas planned for urban development surrounded primarily by commercial, office, residential, school, and park uses, or a combination of these uses. While three candidate housing sites (C-20, C-23, and C-25) are located in agricultural residential zoning, they are located adjacent to parcels zoned for RD-5 (low density residential), RD-20 (multiple family residential), and shopping center. There is no new significant effect, and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, the Project would not result in a new or greater contribution to cumulative effects to visual resources beyond what was identified in the General Plan EIR. The Project's contribution to the significant cumulative impact **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with Municipal Code Chapter 19.12 and Section 23.16.080.

Impact 4-2: Cumulative Light and Glare Impacts

General Plan EIR Impact 5.1.5 evaluated whether implementation of the General Plan, in addition to other reasonably foreseeable projects in the region, would introduce new development into undeveloped agricultural and rural areas, increasing nighttime lighting and daytime glare and contributing to regional skyglow. The General Plan EIR concluded that this would be a cumulatively considerable impact. While future development projects in the City would be required to comply with the design guidelines, Municipal Code Chapter 23.56 for lighting standards, and General Plan policies and standards, the adverse effects of adding new light and glare sources to areas that currently have little to no on-site lighting would substantially contribute to the cumulative impact. These impacts cannot be mitigated to less than significant, and the impact would be cumulatively considerable and significant and unavoidable.

As identified in Impact 3.1-2 of this Draft SEIR, the proposed housing sites and emergency access improvements would create nighttime lighting within the City similar to conditions anticipated for the planned urban land uses for the City under the General Plan. While three candidate housing sites (C-20, C-23, and C-25) are located in agricultural residential zoning, they are located adjacent to parcels zoned for RD-5 (low density residential), RD-20 (multiple family residential), and shopping center. Future development of sites identified by the Project would be required to comply with applicable requirements regarding light and glare. There is no new significant effect, and the impact is not more severe than the impact identified in the General Plan EIR. Therefore, the Project would not result in a new or greater contribution to cumulative effects to visual resources beyond what was identified in the General Plan EIR. The Project's contribution to the significant cumulative impact **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond Municipal Code Chapter 23.56 and Section 23.16.080.

Air Quality

The geographic context for cumulative impacts related to air quality is regional for criteria air pollutant and ozone precursors and includes the Sacramento Valley Air Basin and Sacramento County within the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD), and the context is local for toxic air contaminants and odors. Cumulative development in the region will continue to increase the concentration of pollutants from construction activities, traffic, natural gas combustion in buildings, area sources, and stationary sources, but this increase would be partially offset by State and federal policies that set emissions standards for mobile and nonmobile sources.

The City General Plan EIR identified cumulative air quality impacts from buildout of the City and planning area as cumulatively considerable and significant and unavoidable (City of Elk Grove 2019).

Impact 4-3: Cumulative Air Quality Impacts

The General Plan EIR Impact 5.3.7 identified that implementation of the General Plan would exacerbate existing regional problems with criteria air pollutants and ozone precursors that would result in a significant and unavoidable cumulative impact. As identified in Impacts 3.2-1, through 3.2-4, the Housing Element and Safety Element Update could result in construction and operational air pollutant and TAC emissions similar to development and buildout conditions assumed in the General Plan EIR and its current land use designations. Emissions are expected to be similar because assumptions and buildout conditions would be similar, and all development would be required to comply with General Plan policies and standards and SMAQMD Basic Construction Emission Control Practices. These additional emissions would not result in a new or greater contribution to cumulative effects to air quality beyond what was identified in the General Plan EIR. The Project's contribution to the significant cumulative impact **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan policies NR-4-1, MOB-1-1, and Standard MOB-3-2a, Municipal Code Sections 16.07.200 through 16.07.500 and 23.58.120, and SMAQMD Basic Construction Emission Control Practices.

Archaeological, Historical, and Tribal Cultural Resources

The cumulative context associated with the Project includes proposed, planned, reasonably foreseeable, and approved projects in the Planning Area and surrounding region. Much development has occurred in the region prior to protections for historic and prehistoric resources. This past urban development in the region has likely resulted in adverse impacts to historical and prehistoric resources, and it there is potential for present and future development activities to affect as-yet undiscovered cultural resources, tribal cultural resources, and human remains. Federal, State, and local laws provide protections for historical resources, but protection may not always be feasible. For these reasons, the cumulative effects of future development on cultural resources, tribal cultural resources, and human remains are considered significant.

Impact 4-4: Historic Resources, Archaeological Resources, Tribal Cultural Resources, and Human Remains

General Plan EIR Impact 5.5.2 evaluated whether implementation of the General Plan would have the potential to contribute to cumulative impacts on cultural resources, including archaeological and historic resources, as well as interred human remains. The past, present, and foreseeable projects have affected, or will affect, cultural resources throughout the region despite the federal, State, and local laws designed to protect them. These laws have led to the discovery, recording, preservation, and curation of artifacts and historic structures; however, more have been destroyed in the period before preservation efforts began or are inadvertently destroyed during grading and excavation for construction. For these reasons, cumulative impacts on cultural resources in the region are significant. The analysis noted that implementation of mitigation measures MM 5.5.1a and MM 5.5.1b would ensure that the General Plan's contribution to the cumulative impact would be less than cumulatively considerable.

As identified in Impacts 3.3-1, 3.3-2, 3.3-3, and 3.3-4 of this Draft SEIR, the proposed housing sites and emergency access improvements under the Housing Element and Safety Element Update would include development of previously disturbed areas where undiscovered subsurface resources may exist similar in extent to the General Plan because the extent of assumed land disturbance would not change from what was evaluated in the General Plan EIR. While the Project may introduce more intensive development of sites than assumed in the General Plan EIR, development of all sites would be required to comply with adopted mitigation measures requiring a cultural resources study and handling of discoveries. Adherence to applicable codes and regulations as well as implementation of adopted Mitigation Measures MM 5.5.1a and MM 5.5.1b would ensure that the Project's contribution to the cumulative impact are offset. Therefore, the Project would not result in a new or greater contribution to cumulative effects to historic resources, archaeological resources, tribal cultural resources, and human remains beyond what was identified in the General Plan EIR. The Project's contribution to the significant cumulative impact **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan policies HR-2-1, adopted Mitigation Measures 5.5-1a and 5.5-1b, compliance with California PRC Section 5097 et seq. and 21081.3, and California Health and Safety Code Section 7050.5.

Biological Resources

The habitat within the region is highly developed with large areas of natural or agricultural lands. Developed areas have encroached into some natural habitat, particularly annual grasslands, and aquatic features. The natural communities and some agricultural communities provide suitable habitat for special-status species, including Sanford's arrowhead, valley elderberry hawk, burrowing owl, and tricolored blackbird. There is a higher level of protection for special-status species due to urban encroachment and development significantly impacting the species and their habitat. Because there has already been a large decline in available habitat for special-status species, there has been a significant cumulative impact on biological resources and the habitat.

Impact 4-5: Cumulative Impacts to Biological Resources

General Plan EIR Impact 5.4.7 evaluated whether future development in the Planning Area, when considered together with other past, existing, and planned future projects, could result in a significant cumulative impact on biological resources in the region. The General Plan's contribution to this impact would be cumulatively considerable. As development occurs in the Planning Area and vicinity, habitat for biological resources will continue to be converted to urban development. More mobile species may survive this development by moving to other areas, but less mobile species would not. Natural habitat conversion will reduce the availability of habitat for special-status species. The natural areas remaining will likely be isolated and not support biological resources beyond their carrying capacity identified in the General Plan EIR. Buildout of the General Plan would result in the increase of urban buildout and contribute to the loss of habitat for special-status species, as well as common species. Therefore, the General Plan's contribution to the cumulative loss of habitat would be cumulatively considerable.

As discussed in Impacts 3.4-1 through 3.4-4 of this Draft EIR, implementation of the Project would include ground disturbance that would affect biological resources similar in extent to the General Plan because the extent of assumed land disturbance would not change from what was evaluated in the General Plan EIR. For areas that would be rezoned to allow more intensive housing and may result in the construction of emergency access improvements, impacts would be similar to those evaluated in the General Plan EIR due to the relatively high level of disturbance from surrounding urban and rural development. For example, while housing site C-25 is zoned AR-5 (Agricultural Residential) and is within the ER (Estate Residential) land use designation, it is adjacent to sites zoned for commercial uses that have been developed and are currently used for commercial purposes. Compliance with existing regulations and General Plan policies and standards would ensure that the Project's contribution to the cumulative impacts are addressed in a manner consistent with the General Plan EIR analysis. Therefore, the Project would not result in a new

or greater contribution to cumulative effects to biological resources beyond what was identified in the General Plan EIR. The Project's contribution to the significant cumulative impact **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with City General Plan policies NR-1-2, NR-1-4, and standards NR-1.2b and NR-1.2c, City Municipal Code Chapter 16.130 and 19.13, and through permitting by CDFW and USFWS.

Energy

The geographic area considered for cumulative impacts related to energy use includes the Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric Company (PG&E) service areas. SMUD and PG&E employ various programs and mechanisms to support the provision of electricity and natural gas services to new development and recoup costs of new infrastructure. Connection fees are typically charged through standard billing for services.

Several other currently planned and approved projects identified in Table 4-2 would also receive electricity service from SMUD and natural gas service from PG&E. These projects would also consume energy related to transportation (i.e., gasoline and diesel consumption for passenger vehicles, trucks, buses, and other vehicles) and construction. These projects would be required to implement energy efficiency measures in accordance with the California Energy Code to reduce energy demand from buildings and would likely implement transportation demand management considerations to reduce vehicle trips and miles traveled, which would reduce fuel consumption. There is no evidence to suggest that implementation of development would result in a significant cumulative energy impact related to the wasteful or inefficient use of energy.

The City General Plan EIR identified less than cumulatively considerable energy impacts from buildout of the City and planning area (City of Elk Grove 2019).

Impact 4-6: Cumulative Impacts Related to Energy

Impact 5.7.3 of the General Plan EIR evaluated whether implementation of the proposed land uses under the General Plan would result in the wasteful, inefficient, or unnecessary consumption of energy. The General Plan EIR concluded that construction-related energy expenditures would be less than significant due to the inherent short-term nature of construction. The General Plan EIR also determined that operational energy usage would be less than significant because future development would comply with applicable future versions of the California Energy Code. Also, the General Plan and CAP included policies and actions that would reduce energy consumption.

Implementation of the Housing Element and Safety Element would also be subject to the energy efficiency actions of the California Energy Code and CAP and would not result in a substantial increase in energy use or wasteful energy use beyond what was anticipated in the General Plan EIR. As noted in Section 3.5, "Energy," of this Draft SEIR, more densely operated land uses would improve the energy efficiency of the City's residences on a per capita basis as compared to the less dense land uses currently included in the existing Housing Element and General Plan. Therefore, the Project would not result in a new or greater contribution to cumulative effects to energy use beyond what was identified in the General Plan EIR. The Project's contribution to the significant cumulative impact **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with the City's CAP, including measures BE-1, BE-5, BE-6, BE-7, BE-8, and ACM-5, and Municipal Code Chapter 16.07 and Section 23.58.120.

Geology and Soils

The impacts related to geology and soils are not cumulative in nature. For example, impacts related to seismic shaking, erosion and loss of topsoil, and expansive soils relate only to project structures or the individual project site. However, paleontological resources can be thought of as areawide resources, and their loss at multiple sites may result in a cumulative impact. The geographic setting for cumulative effects on paleontological resources is the flood terraces of the Sacramento River and its tributaries within the Riverbank and Modesto geologic formations. These formations consist of older quaternary alluvium and have produced significant paleontological finds. Although excavation and development have occurred across this formation, paleontological resources have been protected and preserved when found, and no existing adverse cumulative condition exists.

The City General Plan EIR identified cumulative paleontological resource impacts from buildout of the City and planning area as less than cumulatively considerable through the implementation of adopted mitigation measures (City of Elk Grove 2019).

Impact 4-7: Contribute to Cumulative Disturbance to or Loss of Paleontological Resources

General Plan EIR Impact 5.6.7 identified that implementation of the General Plan would not contribute to cumulative impacts to paleontological resources through the implementation of Mitigation Measure 5.6.5. Grading and excavation activities resulting from implementation of the Housing Element and Safety Element Update would be required to comply with this mitigation measure and would not result in a new or substantially more severe impact to paleontological resources that what was addressed in the General Plan EIR as all future development would be subject to adopted General Plan EIR Mitigation Measure 5.6.5. Therefore, the Project would not result in a new or greater contribution to cumulative effects to paleontological resources beyond what was identified in the General Plan EIR. The Project's contribution to the significant cumulative impact **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with adopted General Plan EIR Mitigation Measure 5.6.5.

Greenhouse Gas Emissions and Climate Change

Climate change is a global problem. Greenhouse gases (GHGs) are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more carbon dioxide (CO₂) is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remain stored in the atmosphere (IPCC 2013:467).

No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

The City General Plan EIR identified cumulative GHG impacts from buildout of the City and planning area as cumulatively considerable and significant and unavoidable by 2050 (City of Elk Grove 2019).

Impact 4-8: Contribute to Cumulative Impacts Related to Greenhouse Gas Emissions and Climate Change

As described in Section 3.7, "Greenhouse Gas Emissions and Climate Change," the discussion of GHG emissions associated with the Project in Impact 3.7-1 is inherently a cumulative impact analysis. GHG emissions from one project cannot, on their own, result in changes in climatic conditions; therefore, the emissions from one project must be

considered in the context of their contribution to cumulative global emissions. Although implementation of the Housing Element and Safety Element would result in both direct and indirect GHG emissions, the 2019 CAP and associated General Plan policies would reduce emissions consistent with local GHG emissions reduction targets that were developed in consideration of the statewide 2030 reduction target established by SB 32 and the 2017 Scoping Plan. Therefore, the Project would not result in a new or greater contribution to cumulative effects to GHG emissions and climate change beyond what was identified in the General Plan EIR. The Project's contribution to the significant cumulative impact **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with Measures BE-1, BE-4, BE-5, BE-6, BE-7, BE-8, and ACM-5 from the 2019 CAP and Municipal Code Chapter 16.07 and Section 23.58.120.

Hazardous Materials and Public Health

In the cumulative condition, development of the City may result in increased use of potentially hazardous materials. Facilities that use hazardous materials would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. The storage, use, disposal, and transport of hazardous materials are extensively regulated by various federal, State, and local agencies; therefore, construction companies and businesses that would handle any hazardous substances would be required by law to implement and comply with these hazardous materials regulations. Development of the City would increase the extent of population that would need to be accommodated for emergency response and evacuation.

Hazardous materials contamination impacts, including remediation activities to protect public health and safety, are site-specific and do not combine with the effects on other sites to result in a cumulative effect. No further analysis of this impact is necessary.

Impact 4-9: Cumulative Transport, Use, Storage, and Disposal of Hazardous Materials

General Plan EIR Impact 5.8.6 evaluated the General Plan's impacts related to cumulative transport, use, storage, and disposal of hazardous materials. Future development under the General Plan would be required to comply with applicable hazardous materials management laws and regulations adopted at the federal, State, and local level including but not limited to Titles 10, 29, 40, and 49 of the CFR, which regulate the handling (including transportation), storage, and disposal of hazardous materials and wastes; and Titles 8, 22, and 26 of the CCR, which address the handling, storage, disposal and management (including workplace safety) of hazardous materials and wastes. Compliance with these regulations would be monitored during construction and occupancy of new projects through a variety of agencies. Therefore, implementation of the General Plan would not combine with other related projects to create cumulative impacts related to the transport, use, storage, and disposal of hazardous materials.

As identified in Impacts 3.8-1 and 3.8-2 of this Draft SEIR, future projects under the Housing Element and Safety Element would be required to comply with applicable federal, State, and local regulations and policies regarding hazardous materials and waste. There is no new significant effect, and the impact is not more severe than the cumulative impact identified in the General Plan EIR. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to hazardous materials beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to hazardous materials **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policies ER-1-1 through ER-1-4 and State regulations including CCR Title 19, Division 2, Chapter 4.5.

Impact 4-10: Contribute to Cumulative Impacts Related to Impairment of or Physical Interference with an Adopted Emergency Response or Emergency Evacuation Plan.

General Plan EIR Impact 5.8.7 evaluated whether cumulative development would result in construction activities that could temporarily affect roadways and increase the number of people who may need to evacuate the region in the event of an emergency. Similar to the General Plan, these activities could result in the need for lane closures or narrowing. Such impacts tend to be localized, would be short-term, and would not combine to produce a significant cumulative effect. Construction traffic control plans are typically used to mitigate potential effects. Thus, the cumulative impact would not be significant.

As identified in Impact 3.8-4 of this Draft SEIR, future development under the Housing Element Update would be located on existing parcels within the City and is not anticipated to encroach on or obstruct any existing evacuation routes. All new development would be required to comply with existing fire codes and ordinance regarding emergency access. As noted in Impact 3.8-4, the Housing Element and Safety Element Update would not propose any policies or programs that would conflict with the City's Emergency Operations Plan (EOP) or Sacramento County's Local Hazard Mitigation Plan (LHMP). Implementation of potential emergency access and evacuation improvements under the Safety Element Update would provide beneficial impacts. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to hazardous materials beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to hazardous materials **would be less than cumulatively considerable.**

Mitigation Measures

No additional mitigation is required beyond compliance with Sacramento County LHMP and the City's EOP.

Hydrology and Water Quality

The cumulative setting for drainage and water quality impacts in the Sacramento River watershed, which receives drainage from the portions of the Morrison Creek Stream Group, and the American River, which flows through El Dorado and Sacramento Counties, as well as the Cosumnes River watershed in El Dorado County. The cumulative setting for groundwater impacts is the area that pumps groundwater from the Central Basin portion of the South American Subbasin, which includes the Cities of Elk Grove, Sacramento, and Folsom as well as areas of unincorporated Sacramento County.

Impact 4-11: Cumulative Drainage and Water Quality Impacts

General Plan EIR Impact 5.9.5 evaluated whether development of the Planning Area, in combination with cumulative development in the Sacramento River and Cosumnes River watersheds, would increase the potential for pollutants to be discharged to surface water and groundwater. Construction activities in the creek watersheds that drain to the Cosumnes and American Rivers could cumulatively affect water quality if measures are not implemented to control the type and amount of pollutants potentially carried to waterways. Post-construction cumulative water quality effects could be expected from continued development in the creek subwatersheds that drain to the Sacramento and Cosumnes Rivers. Cumulative development would result in increased impervious surfaces that increase the rate and amount of runoff which, in turn, could increase urban contaminant loading, which could adversely affect existing water quality. Because all development in the Sacramento River watershed would be required to apply for coverage and comply with the various federal, State, and local permits, the cumulative impact would not be significant.

As identified in Impacts 3.9-1 and 3.9-2 of this Draft SEIR, subsequent projects under the Housing Element and Safety Element would be required to adhere to all applicable requirements, including Chapter 16.44 of the Elk Grove Municipal Code, the State's Construction General NPDES permit, the City's MS4 permit, General Plan, and Municipal Code. Adherence to these requirements would ensure that future development activities would not increase site runoff volumes or degrade water quality, thereby preventing a cumulative effect. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to water quality beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to water quality **would be less than cumulatively considerable.**

Mitigation Measures

No additional mitigation is required beyond compliance with the City's MS4 permit, General Plan Policies NR-3-2, NR-3-3, and LU-5-12, and Municipal Code Chapter 15.12 and 16.44, and the Construction General NPDES Permit.

Impact 4-12: Cumulative Flood Hazard Impacts

General Plan EIR Impact 5.9.6 evaluated whether development of the Planning Area, in combination with cumulative development in the Sacramento River watershed, including its American River and Cosumnes River tributaries, could be located in areas subject to 100-year and/or 200-year flood hazard. Areas of 100-year and 200-year flood hazard risk are present throughout Sacramento County. Cumulative development could result in placement of housing or structures in floodplains. Cumulative urbanization in the region would continue to increase drainage flows through the creation of impervious surfaces, including roads, parking lots, and rooftops, which could generate stormwater runoff. Increased drainage flows could exceed existing and/or planned drainage or stormwater management facilities, causing new flooding, or exacerbating existing flooding. The General Plan EIR concluded that this would be a significant cumulative impact.

As identified in Impacts 3.9-4 and 3.9-5 of this Draft SEIR, subsequent projects under the Housing Element and Safety Element would be required to comply with the City's Storm Drainage Master Plan (SDMP), the City's NPDES MS4 requirements, and the City's Municipal Code. Compliance with these requirements ensures that future projects would not create flood hazards. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to flood hazards beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to flood hazards **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond the City's SDMP, the City's NPDES MS4 requirements, and Municipal Code Chapter 16.44 and Section 23.42.040.

Impact 4-13: Cumulative Groundwater Use

General Plan EIR Impact 5.9.7 evaluated whether development of the Planning Area, in combination with other development in the Central Basin, would increase demand for groundwater and could potentially interfere with recharge of the aquifer. The analysis noted that implementation of the General Plan would increase demand for water resources, a portion or all of which would be met with groundwater, at the discretion of the Sacramento County Water Agency (SCWA). Because additional groundwater could be needed to serve the Study Areas, the impact would be cumulatively significant and unavoidable.

As discussed in Impact 3.9-3 of this Draft SEIR, the additional water demand from implementation of the Project would not be likely to require SCWA to seek additional groundwater supply to meet its demands. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to groundwater beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to groundwater **would be less than cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Land Use, Planning, Population, and Housing

The cumulative setting for population growth is the City. SACOG is the lead agency for developing the RHNA for the Sacramento region, which includes Sacramento County and the City. The Project would ensure that the City has adequate sites to accommodate the RHNA and also provides additional sites to ensure that over the long-term, beyond the 2021-2029 RHNA period, that the City continues to have adequate sites to accommodate a range of housing needs. The Project has been developed to accommodate the growth projections in the RHNA and is consistent with long-term regional growth projections. Therefore, implementation of the Housing Element would

assist the City in accommodating its fair-share of growth and housing needs under cumulative conditions. The Project would not induce population growth. Thus, the cumulative impact would not be significant.

The cumulative setting for land use and planning impacts includes the City's Planning Area. Cumulative land use and planning impacts, such as the potential for conflicts with adjacent land uses and consistency with adopted plans and regulations, are typically site- and project-specific. Subsequent projects allowed by the General Plan may result in site-specific land use conflicts; however, these effects are not anticipated to be cumulatively significant.

Impact 4-14: Cumulative Population Growth

As identified in Impact 3.10-1 of this Draft SEIR, the Housing Element and Safety Element Update would not induce substantial population growth above that which is already anticipated for the City and region. Therefore, the Project would not result in a new or greater contribution to cumulative population growth beyond what was identified in the General Plan EIR. Thus, the Project's contribution to cumulative population growth **would be less than cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Impact 4-15: Cumulative Land Use Impacts

As set forth by state law, the General Plan serves as the primary planning document for the City and the Housing Element is a component of the General Plan. Subordinate documents and plans are required to be consistent with the General Plan. The Project would update the Housing Element of the General Plan, amend the General Plan land use map, revise the Zoning Code, and revise the Safety Element, as described in Chapter 2, "Project Description." The Housing Element identifies the City's approach to accommodating its housing needs. The majority of the City's housing needs would be accommodated on sites currently designated for housing development; however, there is a shortfall of sites to accommodate the City's fair share RHNA of very low and low income housing as described in Chapter 2, "Project Description,"

As identified in Impact 3.10-2 of this Draft SEIR, the Project would not result in conflicts with applicable land use plans, policies, or regulations. Therefore, the Project would not result in a new or greater contribution to cumulative land use impacts beyond what was identified in the General Plan EIR. Thus, the Project's contribution to cumulative land use impacts **would be less than cumulatively considerable**.

Mitigation Measures

No mitigation is required.

Noise

The City General Plan EIR identified traffic noise impacts from buildout of the City and planning area as cumulatively considerable and significant and unavoidable (City of Elk Grove 2019).

Impact 4-16: Contribute to Cumulative Traffic Noise

As shown in Table 3.11-11, additional housing from implementation of Housing Element Update would not generate a substantial increase in traffic noise levels above those anticipated under the General Plan buildout because traffic noise level increases (less than 1 dB increase) would not be perceptible to the human ear (see Section 3.11, "Noise and Vibration"). There is no new significant effect, and the impact is not substantially more severe than the impact identified in the EIR. Thus, the Project's contribution to cumulative traffic noise impacts **would be less than cumulatively considerable**.

Mitigation Measures

No mitigation is required beyond compliance with General Plan policies N-1-1, N-1-4, N-1-5, and N-2-3.

Impact 4-17: Contribute to Cumulative Construction and Development Noise and Vibration

Because construction noise and vibration are localized effects, only construction projects that occur close to one another could combine to result in a cumulative noise or vibration effect. Therefore, noise and vibration from construction projects outside of the City would not contribute to noise and vibration impacts in the City. This would be a less than cumulatively considerable impact. Construction activities in the City associated with future development projects may result in increases in noise levels surrounding individual project sites and may expose noise-sensitive land uses to intermittent vibration and noise levels above the City's applicable standards. As discussed previously, this construction activity would be intermittent and highly localized in nature. This cumulative impact was identified in General Plan EIR Impact 5.10.6. As discussed under Impacts 3.11-1, 3.11-3, and 3.11-4, several policies and the City's Municipal Code would reduce the severity of noise and vibration impacts. Because General Plan Impacts 5.10.3 and 5.10.4 note that operational noise and vibration, respectively, from buildout of the General Plan would be less than significant, cumulative impacts would also be less than significant. There is no new significant effect, and the impact is not substantially more severe than the impact identified in the EIR. As a result, this impact **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan Policy N-1-8, Municipal Code Section 6.32.100, and the Elk Grove Construction Specifications Manual.

Public Services and Recreation

FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

The cumulative setting for fire and emergency medical services includes all approved, proposed, and reasonably foreseeable development projects in the service area of the Cosumnes Community Services District (CCSD) Fire Department.

Impact 4-18: Cumulative Impacts to Fire Protection and Emergency Medical Services

General Plan EIR Impact 5.11.1.2 evaluated whether Implementation of the General Plan, in combination with other development within the CCSD's service area, would increase demand for fire protection and emergency medical services. The analysis noted that funding from property taxes, development impact fees, and other sources of funding would provide sufficient resources to expand the department's staff, equipment, and facilities to accommodate future growth within the CCSD service area. The analysis concluded that the impact would not be cumulatively significant.

As identified in Impact 3.12-1 of this Draft SEIR, compliance with General Plan policies would ensure new fire station siting and resources are available and that required environmental review would be conducted as specific fire protection facilities are proposed. Impacts associated with the construction of needed fire protection facilities would not exceed construction impacts disclosed in the technical sections of the General Plan EIR. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to fire protection and emergency medical services beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to fire protection and emergency medical services **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with Municipal Code Chapter 16.85 and 17.04 and General Plan policies ER-4-1, ER-4-2, SAF-1-3, and SAF-1-4.

LAW ENFORCEMENT

The cumulative setting for law enforcement services includes all approved, proposed, and reasonably foreseeable development projects in the Planning Area, which is the area served by the Elk Grove Police Department (EGPD).

Impact 4-19: Cumulative Law Enforcement Impacts

General Plan EIR Impact 5.11.2.2 evaluated whether Implementation of the General Plan, in combination with other development would increase demand for law enforcement services. The analysis noted that because additional police services to accommodate development can be accomplished through additional personnel and equipment, the impact would not be cumulatively significant.

As identified in Impact 3.12-2 of this Draft SEIR, the addition of new officers to serve future development would not require a new or expanded police facility because EGPD operations would continue within the centralized facility at the City Hall complex. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to law enforcement beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to law enforcement **would be less than cumulatively considerable**.

Mitigation Measures

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

PUBLIC SCHOOLS

The cumulative setting for public schools is the service area of the Elk Grove Unified School District (EGUSD).

Impact 4-20: Cumulative Public School Impacts

General Plan EIR Impact 5.11.3.2 evaluated whether implementation of the General Plan, in combination with other development in the EGUSD service area, would result in the increase of school-aged children, which would require the construction of new public school facilities, which could have impacts on the environment. The analysis noted that given EGUSD's current shortage of classroom space and the potential for additional development to further increase demand for school space, and thus school construction, the cumulative impact would be significant.

As identified in Impact 3.12-3 of this Draft SEIR, implementation of the Project would result in a substantial increase in student generation that could require additional school facility needs beyond current General Plan buildout. The analysis noted that no additional feasible mitigation is available beyond compliance with existing laws and General Plan policies. While the EGUSD could and should implement measures to reduce physical environmental effects of school development, the EGUSD is not subject to mitigation adopted by the City. No enforceable measures are available. Therefore, the Project's contribution **would be cumulatively considerable and significant and unavoidable** as determined in the General Plan EIR.

Mitigation Measures

No new mitigation is available to reduce Project contributions.

Impact 4-21: Cumulative Impacts to Parks and Recreation Facilities

General Plan EIR Impact 5.11.4.2 evaluated whether the General Plan would result in a cumulative increase in demand for parkland and recreational facilities, the construction of which could impact the physical environment. The analysis concluded that the is impact would not be cumulatively significant.

As identified in Impact 3.12-4 of this Draft SEIR, the City and the CCSD have entered into a memorandum of understanding (MOU) regarding delivery of some parks and recreation facilities within the City's existing boundaries. Development projects outside of the MOU areas that include the construction of recreation facilities would be subject to General Plan policies and mitigation measures identified in the General Plan EIR to reduce physical environmental effects. The CCSD would be responsible for the construction of facilities in the MOU areas and would be required to comply with mitigation monitoring and reporting program (MMRP) from the relevant project-level CEQA document in which the park facilities would be located. Therefore, the construction of park facilities would be subject to policies, standards, and mitigation measures from the General Plan and this SEIR, or the mitigation identified in project specific MMRPs. The Project would not result in a new or greater contribution to cumulative effects related to parks and recreation facilities beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to parks and recreational facilities **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with General Plan policies PT-1-3, PT-1-5, PT-1-6, and PT-1-9, City and CCSD MOU, and City Municipal Code Chapter 22.40.

Transportation

The geographic context for cumulative impacts related to transportation is the City and the planning area. While the City General Plan EIR identified no cumulatively considerable impacts related to transit, bicycle, pedestrian, and traffic safety, vehicle miles travel impacts from buildout of the City and planning area were identified cumulatively considerable and significant and unavoidable because the effectiveness of VMT reductions strategies is not certain. In addition, disruptive changes occurring in transportation, such as transportation network companies (i.e., Uber, Lyft), autonomous vehicles, Mobility as a Service (i.e., ride-sharing, carsharing), Amazon (increased deliveries), may increase VMT (City of Elk Grove 2019:3.15-60).

Impact 4-22: Cumulative Impacts on Vehicle Miles Traveled

The discussion of vehicle miles traveled (VMT) impacts associated with the Project for Impact 3.13-1 is inherently a cumulative impact analysis as it compares the Project to City General Plan VMT standards associated with buildout of the City. As detailed under Impact 3.13-1, the addition of Project-generated total daily VMT within the City would result in an exceedance of the established Citywide limit of 6,367,833 VMT as well as exceed VMT by land use designation for some proposed housing sites that would be rezoned. Therefore, the Project's contribution to substantial effects related to VMT **would be cumulatively considerable and significant and unavoidable**.

Mitigation Measures

Implementation of Mitigation Measure 3.13-1 would reduce Project VMT. However, the Project's contribution would remain **cumulatively considerable and significant and unavoidable**.

Impact 4-23: Cumulative Impacts on Transit, Bicycle, and Pedestrian Facilities

General Plan EIR Impact 5.13.7 identified that implementation of the General Plan would not result in conflicts with plans, policies or programs for transit, bicycle, and pedestrian facilities. As described in Impact 3.14-2 of this Draft SEIR, implementation of the Project would be subject to and implement General Plan policies applicable to transit, bicycle, and pedestrian facilities and service. Additionally, subsequent development projects under the Project would be subject to all applicable City guidelines, standards, and specifications related to transit, bicycle, or pedestrian facilities. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to transit, bicycle, and pedestrian facilities beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to transit, bicycle, and pedestrian facilities **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond compliance with the *Bicycle, Pedestrian, and Trails Master Plan* and General Plan Policies MOB-1-2, MOB-3-1, MOB-3-7, MOB-3-8, MOB-5-4, MOB-5-6, MOB-5-7, and H-1-3.

Impact 4-24: Cumulative Hazards Due to a Design Feature or Incompatible Uses

No significant design hazard impacts were identified in the General Plan EIR. Implementation of the Housing Element and Safety Element Update would be subject to, and constructed in accordance with, applicable roadway design and safety guidelines and General Plan policies. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to hazards due to a design feature or incompatible uses beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to design features or incompatible uses **would be less than cumulatively considerable**.

Mitigation Measures

No additional mitigation is required beyond General Plan Policy MOB-3-10.

Utilities and Service Systems

WATER SUPPLY

The cumulative setting for water supply is the boundary of the SCWA, which includes the entire City as well as portions of the cities of Sacramento and Rancho Cordova.

Impact 4-25: Cumulative Water Service Impacts

General Plan EIR Impact 5.12.1.3 evaluated whether Implementation of the General Plan, in combination with other development would contribute to cumulative demand for domestic water supply. While the demand associated with the General Plan could be accommodated in the short term by the surplus identified by the SCWA, in the long term, General Plan demand would be greater than this surplus. Therefore, this impact would be cumulatively significant and the General Plan's contribution would be cumulatively considerable.

As identified in Impact 3.14-1 of this Draft SEIR, the proposed housing sites under the Housing Element Update would result in an increase in water demand but the increase is minor compared with existing and projected demand, supply, and surplus. 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. Therefore, the Project would not result in a new or greater contribution to cumulative effects related to water service beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to water service **would be less than cumulatively considerable.**

Mitigation Measures

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

WASTEWATER

The cumulative setting for wastewater impacts would be the Regional San service area, which includes portions of unincorporated Sacramento County as well as the Cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, Sacramento, and West Sacramento and the communities of Courtland and Walnut Grove.

Impact 4-26: Cumulative Wastewater Impacts

General Plan EIR Impact 5.12.2.3 evaluated whether Implementation of the General Plan, in combination with other development in the Regional San service area, would generate new wastewater flows requiring conveyance and treatment. Future development in the Regional San service area would result in an incremental cumulative demand for wastewater and related services, and the construction of new and expanded wastewater facilities would provide additional capacity to accommodate current and future demand. The construction of these facilities would result in associated environmental impacts. This impact would be cumulatively significant.

As identified in Impact 3.14-2 of this Draft SEIR, the proposed housing sites 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. This represents an 0.2 percent increase over the amount of wastewater assumed in the General Plan EIR. Because the Sacramento Regional Wastewater Treatment Plant (SRWTP) has been master planned to accommodate additional growth, the Project would not result in a new or greater contribution to cumulative effects related to wastewater beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to wastewater **would be less than cumulatively considerable.**

Mitigation Measures

No mitigation is required.

SOLID WASTE

The cumulative setting for solid waste impacts the service areas of the landfills that serve the City.

Impact 4-27: Cumulative Solid Waste Impacts

General Plan EIR Impact 5.12.3.2 evaluated whether implementation of the General Plan, in combination with other development in other jurisdictions that contribute to regional landfills, would generate solid waste, thereby increasing demand for hauling and disposal services. The analysis concluded that the cumulative impact would not be significant and the General Plan's contribution would not be cumulatively considerable.

As identified in Impact 3.14-3 of this Draft SEIR, proposed housing sites under 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. The analysis noted that there is substantial remaining capacity in the landfills serving local waste haulers, with an average remaining capacity of more than 70 percent. Also, 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 Project would not result in a new or greater contribution to cumulative effects related to solid waste beyond what was identified in the General Plan EIR. Thus, the Project's contribution to substantial effects related to solid waste **would be less than cumulatively considerable.**

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).

5 ALTERNATIVES

5.1 INTRODUCTION

CCR Section 15126.6(a) (State CEQA Guidelines) requires EIRs to describe:

a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is as follows:

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (CCR Section 15126.6[d]).

The State CEQA Guidelines further require that the “no project” alternative be considered (CCR Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR “shall also identify an environmentally superior alternative among the other alternatives” (CCR Section 15126.6[e][2]).

In defining “feasibility” (e.g., “feasibly attain most of the basic objectives of the project”), CCR Section 15126.6(f)(1) states, in part:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project’s significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of “potentially feasible” alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency’s decision-making body—here, the City of Elk Grove. (See PRC Sections 21081.5, 21081[a] [3].)

5.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

5.2.1 Attainment of Project Objectives

As described above, one factor that must be considered in selection of alternatives is the ability of a specific alternative to attain most of the basic objectives of the Project (CCR Section 15126.6[a]). The purpose of the Housing Element Update is to address the housing needs of the City and to meet the requirements of State law. The Housing Element Update includes the following goals:

GOAL H-1: Adequate sites to accommodate the City's housing needs.

GOAL H-2: Adequate housing stock to meet the needs of extremely low-, very low-, low-, and moderate-income households and special-needs groups.

GOAL H-3: Development regulations that remove constraints to the maintenance, improvement, and development of housing.

GOAL H-4: Maintenance and improvement of affordable housing conditions

GOAL H-5: Housing opportunities for all persons, regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.

GOAL H-6: Preservation of assisted (subsidized) housing developments for lower-income households.

The purpose of the Safety Element Update is to meet the requirements of AB 747 (Levine) and SB 99 (Nielsen). The Safety Element Update includes revisions to Goal SAF-1: A Safe Community.

5.2.2 Environmental Impacts of the Housing Element and Safety Element Update Project

Sections 3.1 through 3.15 and Chapter 4 of this Draft SEIR address the environmental impacts of implementation of the proposed Project. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the Project, as identified in Chapters 3 and 4 of this Draft EIR and summarized below. If an environmental issue area analyzed in this Draft EIR is not addressed below, it is because no significant impacts were identified for that issue area.

- ▶ Impact 3.12-3: Increased Demand for New Public School Facilities
- ▶ Impact 3.13-1: Result in an Exceedance of City of Elk Grove General Plan VMT Thresholds
- ▶ Impact 4-20: Cumulative Public School Impacts
- ▶ Impact 4-22: Cumulative Impacts on Vehicle Miles Traveled

PUBLIC SERVICES AND RECREATION

- ▶ Impact 3.12-3: Impact 5.11.3.1 of the General Plan EIR identifies that future development in the City would result in an increase of school-aged children and would require the construction of new public school facilities. As determined by the General Plan EIR, because school facilities would be constructed by the EGUSD the environmental impacts of school construction would be significant and unavoidable. Implementation of the Project would result in a substantial increase in student generation that could require additional school facility needs beyond current General Plan buildout. This would be a substantial increase in impact severity than what was previously identified in General Plan EIR Impact 5.11.3.1. No mitigation measures are available to reduce potentially significant impacts; thus this impact would be significant and unavoidable.

TRANSPORTATION

- ▶ General Plan Impact 5.13.2 identified that implementation of the General Plan would result in increased VMT that would be significant and unavoidable. Project-generated VMT per service population associated with some of the housing sites rezoned under the Housing Element Update would result in an exceedance of the City's VMT per service population threshold for the High Density Residential land use designation (i.e., 20.6 VMT). The addition of Project-generated total daily VMT within the City could also result in an exceedance of the established Citywide limit of 6,367,833 VMT. Therefore, implementation of the Project could result in substantially more severe VMT impacts than identified in the General Plan EIR. Implementation of mitigation could potentially reduce the extent of this impact but would not reduce the VMT below the City VMT standards. Implementation of the Safety Element would not result in changes in planned land uses or roadway facilities that would alter VMT. Therefore, the Project would result in a significant and unavoidable impact to VMT.

CUMULATIVE IMPACTS

- ▶ Impact 4-20: Cumulative Public School Impacts. General Plan EIR Impact 5.11.3.2 evaluated whether implementation of the General Plan, in combination with other development in the EGUSD service area, would result in the increase of school-aged children, which would require the construction of new public school facilities, which could have impacts on the environment. While the EGUSD could and should implement measures to reduce physical environmental effects of school development, the EGUSD is not subject to mitigation adopted by the City. Project impacts would be cumulatively considerable.
- ▶ Impact 4-22: Cumulative Impacts on Vehicle Miles Traveled. The discussion of vehicle miles traveled (VMT) impacts associated with the Project for Impact 3.13-1 is inherently a cumulative impact analysis as it compares the Project to City General Plan VMT standards associated with buildout of the City. As detailed under Impact 3.13-1, the addition of Project-generated total daily VMT within the City would result in an exceedance of the established Citywide limit of 6,367,833 VMT. Therefore, the Project's contribution to substantial effects related to VMT would be cumulatively considerable.

5.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165–1167).

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision maker(s). (See PRC Section 21081[a][3].) At the time of action on the Project, the decision maker(s) may consider evidence beyond that found in this EIR in addressing such determinations. The decision maker(s), for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint and may reject an alternative on that basis provided that the decision maker(s) adopt a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence (*City of Del Mar v. City of San Diego* [1982] 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* [2009] 177 Cal.App.4th 957, 998).

The EIR should also identify any alternatives that were considered by the lead agency but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

The following alternative was considered by the City of Elk Grove but is not evaluated further in this Draft SEIR.

5.3.1 Housing Element Update Alternative - Housing Sites Below Regional Housing Needs Allocation

This alternative would reduce or eliminate the proposed candidate housing sites identified in Table 2-2. The reduction of total housing sites would reduce impacts identified for the proposed Housing Element Update. This alternative was rejected as it would not accommodate the City's share of the regional housing allocation established in the SACOG Regional Housing Needs Plan for the 2021–2029 planning period and would not meet Housing Element Update Goal H-1 and H-2.

5.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

The following alternatives are evaluated in this Draft SEIR:

- ▶ **Alternative 1: No Project Alternative** assumes continued implementation of the City's 2013 Housing Element and the Safety Element as adopted with the 2018 General Plan. No changes would be made to address the requirements of State law. The housing sites would retain their current General Plan land use and zoning designations.
- ▶ **Alternative 2: Reduced Sites Alternative** includes sufficient sites to meet the City's RHNA allocation but would reduce the extent of total housing sites to provide a buffer for the RHNA allocation.

Further details on these alternatives, and an evaluation of their environmental effects relative to those of the proposed Project, are provided below. For purposes of comparison with the other action alternatives, conclusions for each technical area are characterized as "impacts" that are greater, similar, or less to describe conditions that are worse than, similar to, or better than those of the proposed Project.

5.4.1 Alternative 1: No Project Alternative

Under the No Project Alternative, the City would continue to implement the adopted 2013 Housing Element and the Safety Element as adopted in the 2018 General Plan. No changes to either element would be made to address the requirements of State law. Since adoption of the 2013 Housing Element, the City has been issued a Regional Housing Needs Allocation (RHNA) by the Sacramento Area Council of Governments (SACOG) and is required by State law to address its housing needs in an updated Housing Element. The Housing Element goals, policies, and programs as well as the Land Use Map and Zoning Code would not be updated to address the City's housing needs under this alternative. The 25 candidate housing sites would retain their adopted General Plan and zoning designations. The Safety Element would not be updated to incorporate emergency access route information as required by AB 747 (Levine) and SB 99 (Nielsen).

The No Project Alternative 1 would result in the continuation of existing conditions and planned development of the City. No new significant environmental impacts or an increased severity of environmental impacts identified in the General Plan EIR would occur under this alternative because it would retain the currently General Plan land use designations and policy provisions.

5.4.2 Alternative 2: Reduced Sites Alternative

Under the Reduced Sites Alternative, existing zoning remains on the existing sites and rezones would occur on the candidate housing sites with the exception of housing sites C-2, C-3, C-5, C-6, C-13, C-14, C-15, C-16, C-18, and C-24. This alternative would reduce the acreage available for high-density housing from 261.5 acres proposed by the Project to 201.82 acres, a reduction of 59.68 acres. The Reduced Sites Alternative would provide for 5,184 residential units, a decrease of 1,565 housing units from the proposed Housing Element Update. This alternative would still meet

the City's RHNA allocation of 4,265 housing units for very low and low income groups with a buffer of approximately 919 dwelling units. This alternative would be consistent with scenario 3 evaluated in the VMT analysis provided in Appendix D.

Under this alternative, the Safety Element would be updated as anticipated by the Project. As discussed in Chapter 2, "Project Description," of this Draft SEIR, these changes are required by AB 747 (Levine) and SB 99 (Nielsen).

AESTHETICS

As discussed in Section 3.1, "Aesthetics," of this Draft SEIR, the Project would result in less-than-significant impacts related to changes in visual character and new sources of substantial light or glare from new high density residential development. Under this alternative, ten sites would be removed from the Project and would retain their existing zoning and General Plan designations which include residential and commercial uses. Thus, development of these sites in accordance with their existing zoning and land use designations would result in less of an impact related to changes to the existing visual character of the area, as well as potentially result in new sources of nighttime lighting in the area. (*Less*)

AIR QUALITY

As discussed in Section 3.2, "Air Quality," of this Draft SEIR, the Project would result in less-than-significant impacts related to air emissions during construction and operation. Under the Reduced Sites Alternative, up to 1,565 fewer housing units would be constructed as compared with the proposed Project. Because the sites removed from the Project would be built out according to their existing zoning and land use designations, they would still generate construction emissions as all sites are already anticipated for development under the General Plan. However, this alternative would result in reduced operational air pollutant emissions because it would consist of up to 1,565 fewer housing units, which could also reduce potential impacts related to public health. (*Less*)

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

As discussed in Section 3.3, "Archaeological, Historical, and Tribal Cultural Resources," implementation of adopted mitigation measures from the General Plan EIR would ensure that Project impacts would be less than significant. The Reduced Sites Alternative would involve earthmoving activities similar to those of the Project, which could result in the disturbance, destruction, or alteration of known or as-yet-undiscovered/unrecorded archaeological resources, tribal cultural resources, or human remains. This alternative would remove from the Project ten sites included in Table 3.3-4 of this Draft SEIR, which would reduce the number of potential housing sites containing historic-age buildings. Although the Reduced Sites Alternative would reduce the intensity of operations on the sites, site disturbance would be similar as the Project because these housing sites would still allow for residential development under their current General Plan land use designations. Therefore, the impacts under the Reduced Sites Alternative would be similar to those under the Project. (*Similar*)

BIOLOGICAL RESOURCES

As discussed in Section 3.4, "Biological Resources," of this Draft SEIR, the Project would result in less-than-significant impacts on biological resources because it would not expand the overall planned development footprint of the City. The Reduced Sites Alternative would be similar as the Project because these housing sites would still allow for residential development under their current General Plan land use designations. Therefore, the impacts under the Reduced Sites Alternative would be similar to those under the Project. (*Similar*)

ENERGY

As discussed in Section 3.5, "Energy," of this Draft SEIR, the Project would result in less than significant environmental impacts related to wasteful, inefficient, or unnecessary consumption of energy and would not conflict with or obstruct plans for renewable energy or energy efficiency. Likewise, the Reduced Sites Alternative would also not result in significant energy impacts. However, the Reduced Sites Alternative would have lower energy demands than that of the Project because of the reduced intensity of use on the housing sites that would not be developed with high-density residential units. Therefore, energy impacts under the Reduced Sites Alternative would be less than those under the Project. *(Less)*

GEOLOGY AND SOILS

As discussed in Section 3.6, "Geology and Soils," of this Draft SEIR, implementation of adopted mitigation measures from the General Plan EIR would ensure that Project paleontological impacts would be less than significant. Construction activities for the Reduced Sites Alternative would be similar as the Project because these housing sites would still allow for residential or commercial development under their current General Plan land use designations. With implementation of adopted mitigation measures, geology and soils impacts under the Reduced Sites Alternative would be similar to those that would occur under the Project. *(Similar)*

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

As discussed in Section 3.7, "Greenhouse Gas Emissions and Climate Change," the Project would result in less-than-significant impacts related to GHGs and climate change. Under the Reduced Sites Alternative, the intensity of site development would be reduced; therefore, less operation-related GHG emissions would be generated than under the Project. Construction emissions for this alternative and the Project are anticipated to be similar because the sites would have the same development footprint. Thus, GHG operation-related emission impacts under the Reduced Sites Alternative would be less than under the Project. *(Less)*

HAZARDS AND HAZARDOUS MATERIALS

As discussed in Section 3.8, "Hazards and Hazardous Materials," of this Draft SEIR, implementation of mitigation measures adopted in the General Plan EIR would ensure that Project impacts would be reduced to a less-than-significant level. As with the Project, development under the Reduced Sites Alternative would be required to evaluate the site for potential contamination prior to approval of site disturbance, as well as adhere to all applicable federal, State, and local regulations regarding hazardous materials. Thus, impacts on public health and safety related to hazardous materials or hazards under the Reduced Sites Alternative would be similar to those under the Project. *(Similar)*

HYDROLOGY AND WATER QUALITY

As discussed in Section 3.9, "Hydrology and Water Quality," of this Draft SEIR, the Project would result in less than significant impacts related to hydrology and water quality. Compared to the Project, the Reduced Sites Alternative would allow development of the same acreage, so impacts related to new impervious surfaces would be similar. Under the Reduced Sites Alternative, there would not be as many new residential units (1,565 fewer housing units) in the area, so it is expected that demand for groundwater would be less than under the Project. On balance, the Reduced Sites Alternative would have similar impacts as the Project. *(Similar)*

LAND USE, PLANNING, POPULATION, AND HOUSING

As discussed in Section 3.10, “Land Use, Planning, Population, and Housing,” of this Draft SEIR, the Project would not result in significant impacts related to population growth or land use conflicts. As with the Project, future projects under the Reduced Sites Alternative would be required to comply with City Municipal Code requirements that address environmental effects from development, such as Municipal Code Chapter 16.44 (Land Grading and Erosion Control) and Municipal Code Section 6.32.080 (exterior noise standards for sensitive receptors). Further, the Project and the Reduced Sites Alternative would be consistent with the SACOG 2020 MTP/SCS. Land use and planning impacts associated with this alternative would be similar to those under the Project. *(Similar)*

NOISE AND VIBRATION

As discussed in Section 3.11, “Noise and Vibration,” of this Draft SEIR, the Project would result in less-than-significant impacts related to noise and vibration during construction and operation, including traffic noise. Future development under the Reduced Sites Alternative, like all development in the City, would be required to adhere to the Elk Grove Construction Specifications Manual requirements regarding allowable times and hours of work and noise control measures. As development under the Reduced Sites Alternative would be less intense than under the Project, it is expected that the reduction in new dwelling units would result in lower traffic noise impacts as compared to the Project. Development under this alternative would not increase operational vibration impacts because residential land uses generally are not substantial sources of vibration. *(Less)*

PUBLIC SERVICES AND RECREATION

As discussed in Section 3.12, “Public Services and Recreation,” of this Draft SEIR, the Project would generate additional residents, which would increase the need for additional fire protection and law enforcement services and additional parks. However, these services are funded through a variety of sources (e.g., property taxes, development impact fees, fees for services) and are expanded as needed to accommodate additional population growth. For parks, City Municipal Code Chapter 22.40 and General Plan Policy PT-1-3 require a minimum of 5 acres of developed parkland per 1,000 residents, though some specific plan areas may require additional acreage. Because this alternative would develop fewer homes than anticipated by the Project, there would be slightly less impact than under the Project.

As discussed in Section 3.12, “Public Services and Recreation,” of this Draft SEIR, the Project would result in significant and unavoidable impacts related to public schools due to the increase in students that would be generated. It should be noted that the General Plan EIR also concluded that implementation of the General Plan would have significant and unavoidable impacts on public schools because while the EGUSD could and should implement measures to reduce physical environmental effects of school development, the EGUSD is not subject to mitigation adopted by the City. Under the Reduced Sites Alternative, a reduced amount of housing units would be developed (a reduction of up to 1,565 housing units and up to 614 fewer students), which would reduce the number of students generated as compared to the Project. However, even under the Reduced Sites Alternative, additional students would be generated as compared with the General Plan. Thus, while the Reduced Sites Alternative would not result in as much of a population increase as the Project, it would generate additional students. While the impact would remain significant and unavoidable under the Reduced Sites Alternative, it would be slightly less than under the Project. *(Less)*

TRANSPORTATION

As discussed in Section 3.13, “Transportation,” of this Draft SEIR, the Project would result in significant and unavoidable impacts related to VMT. As identified in Appendix D, the Reduced Sites Alternative would be consistent with scenario 3 evaluated in the VMT analysis and would be consistent with the VMT standards in General Plan Policy MOB-1-1 and would avoid this impact. This alternative would not exceed the established Citywide limit of 6,367,833 VMT as it accommodates the RHNA allocation of Low and Very Low-Income units.. *(Less)*

UTILITIES AND SERVICE SYSTEMS

As discussed in Section 3.14, “Utilities and Service Systems,” of this Draft EIR, the Project would result in less-than-significant impacts related to utilities and service systems. Because the Reduced Sites Alternative would not include as many new residential units as the proposed Project, this alternative would be expected result in lower demand for utilities and service systems. Thus, while both the Project and the Reduced Sites Alternative would result in a net increase in the number of residential units in the City beyond the assumptions of the General Plan EIR, this alternative would result in fewer net new residents and demand for utilities would be less than under the proposed Project. (*Less*)

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Because the No Project Alternative (described above in Section 5.4.1) would avoid all adverse impacts resulting from the Project analyzed in Chapter 3, it is the environmentally superior alternative. However, the No Project Alternative would not meet the Project objectives.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126.6[d][2]) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As illustrated in Table 5-1, below, the Reduced Sites Alternative would be the environmentally superior action alternative.

Table 5-1 Summary of Environmental Effects of the Alternatives Relative to the Housing Element and Safety Element Update Project

Environmental Topic	Project Impacts	Alternative 1: No Project Alternative	Alternative 2: Reduced Sites Alternative
Aesthetics	Less than significant	Less	Less
Air Quality	Less than significant	Less	Less
Archaeological, Historical, and Tribal Cultural Resources	Less than significant (with mitigation)	Less	Similar
Biological Resources	Less than significant	Less	Similar
Energy	Less than significant	Less	Less
Geology and Soils	Less than significant (with mitigation)	Less	Similar
Greenhouse Gas Emissions and Climate Change	Less than significant	Less	Less
Hazards and Hazardous Materials	Less than significant (with mitigation)	Less	Similar
Hydrology and Water Quality	Less than significant	Less	Similar
Land Use, Planning, Population, and Housing	Less than significant	Less	Similar
Noise	Less than Significant	Less	Less
Public Services and Recreation	Significant and unavoidable (public schools)	Less	Less
Transportation	Significant and unavoidable (VMT)	Less	Less
Utilities and Service Systems	Less than significant	Less	Less

6 OTHER CEQA-MANDATED SECTIONS

6.1 GROWTH INDUCEMENT

PRC Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an EIR. Section 15126.2(e) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in:

- ▶ substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- ▶ substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; or
- ▶ removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open space land to urban uses, and other effects.

6.1.1 Growth-Inducing Impacts of the Project

POPULATION GROWTH

As discussed in the General Plan EIR, growth under the General Plan would allow for the future construction of up to 47,836 new homes within the Planning Area at a wide range of types and densities. Construction of these homes would increase the City's population by approximately 157,319 residents to a total of 328,378 at build out. The General Plan recognized that future urban development outside of the City limits may be appropriate to accommodate future growth and identified Study Areas as possible annexation areas for the City to accommodate such growth.

The rezones associated with the Housing Element Update would increase the number of dwelling units that could occur under buildout conditions and accommodate a greater population than was envisioned for the General Plan and analyzed in the General Plan EIR. The Project is intended to accommodate the City's fair-share of regional housing needs and facilitate the construction of affordable housing, but does not propose or entitle development. It

is anticipated that population growth in the City will continue to be driven by market conditions and the General Plan land use designations for residential uses will be revisited with each subsequent RHNA allocation that is received from SACOG.

The proposed Safety Element Update is required to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios, as well as to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes. Implementation of this element may result in the development of emergency access improvements. These proposed text changes would not result in any changes in land use that could affect population growth.

GROWTH EFFECTS ASSOCIATED WITH INFRASTRUCTURE IMPROVEMENTS

The General Plan could potentially indirectly induce growth through removal of an obstacle to additional growth and development, such as removing a constraint on a required public service. The City's infrastructure and public services are largely provided by other public and private service providers (e.g., Sacramento County Water Agency for water supply, Sacramento Regional County Sanitation District and County Sanitation District 1 for wastewater service, Sacramento Municipal Utility District for electrical service) that utilize master plans for guiding planned facility and service expansions that are subject to environmental review under CEQA. The General Plan includes proposed roadway improvements that have been designed to support the General Plan Land Use Policy. The General Plan does not include any provisions requiring the oversizing of infrastructure facilities to serve growth not anticipated in the General Plan Land Use Policy Map. The Housing Element and Safety Element Update does not include any specific infrastructure improvements and also does not include any oversized infrastructure or infrastructure extensions that would result in growth.

ENVIRONMENTAL EFFECTS OF GROWTH

The General Plan would induce further population and job growth in the City as well as potentially induce growth outside of the City (e.g., within the Study Areas). Proposed roadway improvements would support such growth within the City. As a result, the General Plan is considered to be growth-inducing. The environmental effects of this growth within the City and Study Areas is addressed in the General Plan EIR. The Housing Element Update does not propose to locate residential units in areas not anticipated for residential or urban development in the General Plan and General Plan EIR. The environmental effects of the implementation of the Housing Element Update and associated housing sites are discussed in Sections 3.1 through 3.14 and Chapter 4 of this Draft SEIR.

6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The State CEQA Guidelines Section 15126.2(c) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 3 (project-level impacts) and Chapter 4, "Cumulative Impacts," of this Draft SEIR, after implementation of the recommended mitigation measures, many of the impacts associated with the Project would be reduced to a less-than-significant level. The following impacts are considered significant and unavoidable; that is, no feasible mitigation is available to reduce these impacts to a less-than-significant level:

- ▶ Impact 3.12-3: Increased Demand for New Public School Facilities
- ▶ Impact 3.13-1: Result in an Exceedance of City of Elk Grove General Plan VMT Thresholds
- ▶ Impact 4-20: Cumulative Public School Impacts
- ▶ Impact 4-22: Cumulative Impacts on Vehicle Miles Traveled

6.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines (Section 15126) require a discussion of the significant irreversible environmental changes that would be involved in a project if it were implemented. The irreversible and irretrievable commitment of resources is the permanent loss of resources for future or alternative purposes. Irreversible and irretrievable resources are those that cannot be recovered or recycled or those that are consumed or reduced to unrecoverable forms.

As noted in Chapter 2, "Project Description," of this Draft SEIR, the Project would result in up to 2,722 new dwelling units beyond what was evaluated in the General Plan EIR (City of Elk Grove 2018). While the Project would increase housing units, all Project parcels were already anticipated for various levels of development under the General Plan (City of Elk Grove 2019). While housing units would increase, the Project could result in a reduced level of commercial development as compared with that anticipated by the General Plan, the Project would not increase the City's development footprint. Implementation of the Housing Element and Safety Element Update could result in the irreversible and irretrievable commitment of material resources and energy during construction and operation of future development, including:

- ▶ construction materials, such as soil, rocks, wood, concrete, glass, and steel;
- ▶ water supply for new residential units; and
- ▶ energy expended in the form of electricity, gasoline, diesel fuel, and oil for equipment and transportation vehicles that would be needed for Project construction.

Because the General Plan EIR already evaluated the commitment of material resources and energy, the Project's use of these nonrenewable resources is expected to account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs in the region. As discussed in Section 3.5, "Energy," implementation of the Housing Element and Safety Element Update would not result in the long-term inefficient use of energy or natural resources. Therefore, long-term Project operation would not result in substantial long-term consumption of energy and natural resources beyond what was evaluated in the General Plan EIR.

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Chapter 5 Alternatives

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