Summer Villas Special Planning Area Project

SCH# 2024080407

Draft Environmental Impact Report

Prepared for the
City of Elk Grove

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Summer Villas Special Planning Area Project
Draft Environmental Impact Report

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1. Introduction

1. INTRODUCTION

1.1 TYPE AND PURPOSE OF THE EIR

The Summer Villas Special Planning Area Project Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, Public Resources Code (PRC) Sections 21000-21189, as amended, and the Guidelines for Implementation of the California Environmental Quality Act, California Code of Regulations (CCR) Title 14, Sections 15000-15387 (CEQA Guidelines). The City of Elk Grove is the lead agency for the environmental review of the Summer Villas Special Planning Area Project (Project) evaluated herein and has the principal responsibility for reviewing the impacts and considering approval of the Project. As required by Section 15121 of the CEQA Guidelines, this EIR will (a) inform public agency decision-makers, and the public generally, of the significant environmental effects of the Project, (b) identify possible ways to minimize the significant adverse environmental effects, and (c) describe reasonable and feasible project alternatives that reduce environmental effects. The public agency shall consider the information in the EIR along with other information that may be presented to the agency.

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues. CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. For the purposes of CEQA, the term *project* refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the Project, the City has determined that the proposed development is a *project* within the definition of CEQA, which has the potential for resulting in significant environmental effects.

The lead agency is required to consider the information in the EIR along with any other available information in deciding on the Project. The basic requirements for an EIR include discussions of the environmental setting, significant environmental impacts, mitigation measures, potentially feasible alternatives, growth-inducing impacts, and cumulative impacts.

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a *program-level EIR* pursuant to CEQA Guidelines Section 15168. According to CEQA Guidelines Section 15168(a), a program-level EIR is an EIR that may be prepared on a series of actions that could be characterized as one large project and are related either: 1) geographically; 2) as logical parts in the chain of contemplated actions; 3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or 4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

In addition, it is noted that CEQA Guidelines provide: "an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in

the light of what is reasonably feasible" (CEQA Guidelines, Section 15151). Also, "the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR" (CEQA Guidelines, Section 15146). This section specifically notes that, "an EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance . . . should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow" (CEQA Guidelines, Section 15146[b]).

A program-level analysis for the proposed project is appropriate in this EIR because:

- Site-specific details, including development proposals, are not available at this time;
- The General Plan/Rural Area Community Plan Amendment, Rezone, Elk Grove Municipal Code (EGMC) Text Amendment, and Special Planning Area (SPA) Ordinance cover a defined geographic area, with similar land use characteristics; and
- A program-level analysis provides the City with the opportunity to consider “broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts” (CEQA Guidelines Section 15168(b)(4).

1.2 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

“Responsible agency” means a public agency that makes a decision on a project for which a lead agency is preparing or has prepared an EIR or Negative Declaration. For the purpose of CEQA, the term responsible agency includes all California public agencies other than the lead agency that have discretionary approval power over the project or an aspect of the project. The Sacramento Metropolitan Air Quality Management District (SMAQMD), Central Valley Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), and Sacramento County Emergency Management Department (EMD) are identified as potential responsible agencies for the proposed project.

“Trustee agency” means a State agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. The only known trustee agency is the California Department of Fish and Wildlife (CDFW).

Although not subject to California law and, thus, outside the definitions of responsible agency or trustee agency, the U.S. Army Corps of Engineers (USACE), USFWS, and Federal Emergency Management Agency (FEMA) may also be called upon to grant approvals under federal law necessary for the development of the Project. The above agencies do not have duties under CEQA but, rather, are governed by a variety of federal statutes, such as the Clean Water Act, which governs the dredging and filling of waters of the U.S. (e.g., wetlands), and the federal Endangered Species Act, which requires USACE to consult with the USFWS as part of the review process for any wetland or fill permits that may be required.

1.3 PROJECT SUMMARY

The following sections include summaries of the Project location, setting, and Project description.

Project Location and Setting

The Project site (site) consists of approximately 115.9 acres located at 9350 Sheldon Road, southeast of the intersection of Sheldon Road and Waterman Road, in the northeastern portion of the City of Elk Grove. The site is identified by Assessor's Parcel Number (APN) 127-0010-077.

The site is currently developed with a single-unit residence, which is currently occupied, and outbuildings in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries centrally run from the northern and eastern boundaries of the site to the southern boundary of the site.

The site is located within the City's Rural Area Community Plan. Both the Rural Area Community Plan and the City of Elk Grove General Plan designate the site as Rural Residential (RR). The site is zoned Agricultural Residential-Two Acre Minimum (AR-2).

Surrounding existing uses include rural residences and rural estate residences (Agricultural Residential) to the north, across Sheldon Road; undeveloped land and rural residences (Agricultural Residential) to the east; rural residences and a high school/middle school complex (Agricultural Residential and Public Services) to the southeast; rural residences and open space to the west (Agricultural Residential and SPA), across Waterman Road; and mostly undeveloped land with a non-profit horse rescue operation (Agricultural Residential) to the south. In addition, the Elliot Springs Subdivision (SPA) is currently under construction to the southwest.

Project Description

The Project would require approval of a General Plan/Rural Area Community Plan Amendment to allow for the creation of the 115.9-acre Summer Villas SPA. The Summer Villas SPA contains three distinct sub-zones: 1) Active Adult Neighborhood (71.3 acres), 2) Laguna Creek Open Space (20.3 acres), and 3) Waterman Recreational Open Space (19.4 acres) and the remaining 4.9 acres of the site are dedicated to the Waterman Road and Sheldon Road right-of-way (ROW). The SPA does not entitle any specific development proposals. Rather, the SPA adopts site-specific zoning, development standards, and criteria for future development proposals within the site. However, given the sub-zones included in the SPA, a reasonable assumption can be made that on-site development of a senior-based housing community would occur if the City decided to carry out the SPA. The subsequent potential development of the 115.9-acre site includes a maximum of 499 age-restricted (55+) single residential unit homes, described in further detail below.

The 71.3-acre Active Adult Neighborhood sub-zone of the Summer Villas SPA includes two Active Adult Neighborhoods: the 31.3-acre West Neighborhood and the 40.0-acre East Neighborhood. This EIR assumes a maximum of 349 age-restricted single-unit residences would be developed in the East Neighborhood, and a maximum of 150 age-restricted single-unit residences would be developed in the West Neighborhood, for a maximum of 499 age-restricted single-unit residences to be potentially developed within the SPA. The two neighborhoods are bisected by the centrally located Laguna Creek Open Space area, and the West Neighborhood is buffered from Waterman Road by the Waterman Recreational Open Space area. Development of the Summer Villas SPA would also include various associated site improvements, such as a private community recreation center/clubhouse, private park space, public trails, private and public open space areas, landscaping, and a number of on- and off-site roadway and utility improvements.

Further details of the Project, including the required approvals, are described in Chapter 3, Project Description, of this EIR.

1.4 EIR PROCESS

The EIR process begins with the decision by the lead agency to prepare an EIR, either during a preliminary review of a project or at the conclusion of an Initial Study. Once the decision is made to prepare an EIR, the lead agency sends a Notice of Preparation (NOP) to appropriate government agencies, and, when required, to the State Clearinghouse (SCH) in the Office of Land Use and Climate Innovation (LCI), which will ensure that responsible and trustee State agencies reply within the required time frame. The SCH assigns an identification number to the project, which then becomes the identification number for all subsequent environmental documents on the Project. Commenting agencies have 30 days to respond to the NOP and provide information regarding alternatives and mitigation measures they wish to have explored in the Draft EIR and to provide notification regarding whether the agency will be a responsible agency or a trustee agency for the project. Generally, an NOP scoping meeting is held by the lead agency to receive such comments.

Upon completion of the Draft EIR and prior to circulation to State and local agencies and interested members of the public, a notice of completion is filed with the SCH and a public notice of availability is published to inform interested parties that a Draft EIR is available for agency and public review. In addition, the notice provides information regarding the location where copies of the Draft EIR are available for public review, as well as the date of the scheduled public hearing after the close of the public review period. The Draft EIR is circulated for a minimum period of 45 days, during which time reviewers may submit comments on the document to the lead agency. The lead agency must respond in writing to significant environmental issues raised in timely comments. If significant new information, as defined in CEQA Guidelines Section 15088.5, is added to an EIR after public notice of availability is given but before certification of the EIR, the revised EIR or affected chapters must be recirculated for an additional public review period with related comments and responses.

A Final EIR will be prepared, containing public/agency comments on the Draft EIR and written responses to those comments, as well as a list of any changes to the Draft EIR text necessitated by public comments, as warranted. Before approving a project, the lead agency must certify that the EIR (consisting of the Draft EIR and Final EIR) has been completed in compliance with CEQA, and that the EIR has been presented to the decision-making body of the lead agency, which has reviewed and considered the EIR. The lead agency must also certify that the EIR reflects the lead agency's independent judgment and analysis.

Pursuant to CCR Title 14, Section 15091, a lead agency shall not approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the lead agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The findings prepared by the lead agency must be based on substantial evidence in the administrative record and must include an explanation that bridges the gap between evidence in the record and the conclusions required by CEQA. If the decision-making body elects to proceed with a project that would have unavoidable significant impacts, then a Statement of Overriding Considerations explaining the decision to balance the benefits of the project against unavoidable environmental impacts must be prepared with the EIR.

1.5 SCOPE OF THE EIR

An Initial Study has not been prepared for the Project because, as discussed above, the lead agency determined an EIR shall be prepared during a preliminary review and as the EIR addresses all CEQA-required environmental topics identified in the CEQA Guidelines. The following environmental issue areas are addressed in the EIR:

- Aesthetics;
- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural and Tribal Cultural Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services and Utilities; and
- Transportation.

The evaluation of effects is presented on a resource-by-resource basis in Chapters 4.1 through 4.11 of the EIR. Each chapter is divided into the following four sections: Introduction, Existing Environmental Setting, Regulatory Context, and Impacts and Mitigation Measures. Impacts that are determined to be significant in Chapters 4.1 through 4.11, and for which feasible mitigation measures are not available to reduce those impacts to a less-than-significant level, are identified as *significant and unavoidable*. In addition to the foregoing resource areas, Chapter 5, Effects Not Found to be Significant, has been prepared to present information regarding resource areas that do not have the potential to be affected by the Project. Chapter 6 of the EIR presents a discussion of growth-inducing impacts, summary of cumulative impacts, and significant irreversible environmental changes associated with the Project. Alternatives to the Project are discussed in Chapter 7 of the EIR.

1.6 DEFINITION OF BASELINE

According to CEQA Guidelines Section 15125, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the "baseline physical conditions" against which project-related changes can be compared. In addition, CEQA Guidelines Section 15126.2(a) states that an EIR shall identify and focus on the significant environmental effects of the Project. The CEQA Guidelines, Section 15126.2(a), states:

> An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.

Normally, the baseline condition is the physical condition that exists when the NOP is published. The NOP for the Project was published on August 9, 2024. It should be noted that minor changes to reflect revised descriptions of the surrounding uses were made to the NOP and the revised NOP was released for an additional 30-day review period from September 9, 2024 to October 9, 2024. As such, conditions existing on September 9, 2024 are considered to be the baseline against which changes that would result from the Project are evaluated. Impacts could include



both direct and reasonably foreseeable indirect physical changes to the baseline condition. The baseline condition for the site is described in Chapter 3, Project Description, of this EIR. The baseline conditions pertaining to each resource area are described in the "Existing Environmental Setting" section of the respective chapters of this EIR.

1.7 NOTICE OF PREPARATION AND SCOPING

In accordance with CEQA Guidelines Section 15082, an NOP was circulated to the public, local, State and federal agencies, and other known interested parties for a 30-day public and agency review period from August 9, 2024, to September 9, 2024. Minor changes to reflect revised descriptions of the surrounding uses were made to the NOP and the revised NOP was released for an additional 30-day review period from September 9, 2024, to October 9, 2024 (see Appendix A). The purpose of the NOP was to provide notification that an EIR for the Project was being prepared and to solicit public input on the scope and content of the document.

In addition, pursuant to CEQA Guidelines Section 15082, the City of Elk Grove held two NOP scoping meetings for the EIR during the first 30-day review period, on August 26, 2024, and during the second 30-day review period on September 23, 2024, for the purpose of receiving comments on the scope of the environmental analysis to be prepared for the Project. Agencies and members of the public were invited to attend and provide input on the scope of the EIR. All comments were taken into consideration during the preparation of this EIR. A summary of the NOP comments received, including the verbal comments received at the NOP scoping meetings, is provided in Section 1.8 below.

1.8 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

During the NOP public review period from August 9, 2024, to October 9, 2024, the City of Elk Grove received a total of 22 comment letters. A copy of each letter is provided in Appendix B of this EIR. Verbal comments were also received at the NOP scoping meetings. The comment letters and verbal comments received were authored by the following representatives of public agencies and groups, as well as individual members of the general public:

Public Agencies

- California Department of Transportation (Caltrans) – Gary Arnold
- Native American Heritage Commission (NAHC) – Pricilla Torres-Fuentes;
- California Department of Fish and Wildlife (CDFW) – Tanya Sheya;
- Central Valley Regional Water Quality Control Board (CVRWQCB) – Peter Minkel;

Groups

- Greater Sheldon Road Estates Homeowners Association – Eileen Conwell (2);
- Sheldon Community Association- Sharon Lynes and George Murphey

Individuals (Rural Elk Grove Residents)

- Michael Thompson;
- Carlos and Connie Zamarripa, and Rick and Tami Stiehl;
- Tammy and Matt Meuser;
- Ida Connoly;
- Shannon Machores;
- June Wynhoff;
- Mark and Jane White;

- Amelia Vankeuren;
- James and Kendra Schmidt;
- Lynn Wheat;
- Mel Scott and Sandy Scott;
- Grant Lynes; and
- Anonymous Resident.

The following list, categorized by issue, summarizes the concerns brought forth in the comment letters and verbal comments received on the scope of the EIR:

Project Description *(see Chapter 3)*	Concerns related to: • Descriptions of surrounding area and land uses. • Locations of flood basins. • The provision of detailed exhibits disclosing Project area, temporarily impacted areas, spoils areas, adjacent infrastructure development, staging areas, and haul roads.
Aesthetics *(see Chapter 4.1)*	Concerns related to: • Changes from a natural/agricultural landscape to urban/suburban development. • Changes to the rural character of neighborhood. • Visual impacts to surrounding rural residential land uses. • Visual impacts to wetlands and open space. • Impacts of asphalt grindings on views from roadway. • Impacts to dark skies and potential light pollution.
Air Quality, Greenhouse Gas Emissions, and Energy *(see Chapter 4.2)*	Concerns related to: • Climate change caused by increased development and operational energy use. • Impacts to air quality in the Sacramento Valley Air Basin (SVAB) caused by increased emissions.
Biological Resources *(see Chapter 4.3)*	Concerns related to: • Potential direct, indirect, and cumulative impacts to biological resources. • Preservation of native plants and wildlife. • Provision of a habitat type assessment and biological inventory. • Provision of background information including rare or unique environmental resources. • Impacts to wetlands. • Inclusion of adequate avoidance, minimization, and/or mitigation measures for all potential biological resource impacts.
Cultural and Tribal Cultural Resources *(see Chapter 4.4)*	Concerns related to: • Compliance with Senate Bill (SB) 52 and SB 18. • Assessment of the presence of sacred tribal lands on-site. • Conflicts with Elk Grove's agricultural heritage.
Hazards and Hazardous Materials *(see Chapter 4.6)*	Concerns related to: • Wildfire risk. • Potential presence of fertilizers/pesticides resulting from former agricultural uses at site. • Proper sampling of soil.
Hydrology and Water Quality *(see Chapter 4.7)*	Concerns related to: • Flood control and identification of the 100- and 200-year flood plain.

Hydrology and Water Quality *(see Chapter 4.7)*	• Potential impacts to surface and groundwater quality during construction and operation. • Use of existing septic systems and wells within the Project area. • Access to Laguna Creek. • Surface runoff to Laguna Creek. • Impacts of impermeable landscape on aquifer recharge. • Compliance with the South American Subbasin Groundwater Sustainability Plan. • Implementation of a Storm Water Prevention Plan. • Compliance with the CVRWQCB regulations. • Impacts of asphalt grindings on runoff to Laguna Creek. • Compliance with all permitting requirements related to stormwater discharges and the Clean Water Act. • Inclusion of adequate avoidance, minimization, and/or mitigation measures for all potential hydrological impacts.
Land Use and Planning/Population and Housing *(see Chapter 4.8)*	Concerns related to: • Compatibility with the adjacent Agricultural Residential (AR) zoning districts. • Variances, rezoning, and consistency with the existing neighborhood and infrastructure. • Impacts of urban development on surrounding areas.
Noise *(see Chapter 4.9)*	Concerns related to: • Noise impacts from the proposed development. • Noise impacts from increased traffic. • Impacts related to construction noise.
Public Services and Utilities *(see Chapter 4.10)*	Concerns related to: • Increased demand on all utility infrastructure. • Impacts to existing wells and septic systems. • Increased demand on roadway infrastructure. • Increased demand for fire department services and police services, and facilities. • Increased demand for hospitals, clinics, urgent care, and emergency health services. • Impacts to emergency response times. • Ability to accommodate solid waste services in the area and consequent degradation of natural resources. • Impacts resulting from new public water and sewer infrastructure.
Transportation *(see Chapter 4.11)*	Concerns related to: • Provision of a statistical projection of increased number of vehicles. • Provision of vehicle miles travelled (VMT) analysis. • Provision of queuing analysis for State Route (SR) 99 off ramps. • Consistency with a Multimodal Transportation Plan. • Fair share towards upgrades to existing SR 99 ramps. • Increases in traffic along Sheldon Road and Waterman Road. • Impacts of infrastructure development and roadway construction activities on Waterman and Sheldon Roads. • Compliance with encroachment permits. • Impacts to the Sheldon Road equestrian riding access trails. • Increases to safety hazards caused by traffic on Sheldon Road. • Impacts to pedestrian transportation, including walking, biking and equestrian riding access.

Statutorily Required Sections *(see Chapter 6)*	Concerns related to: • Increased population creating increased need for retail services. • Cumulative impact of the Project and reasonably foreseeable development (such as the Elliott Springs Subdivision and Sheldon Park Estates Subdivision,) on the surrounding area.
Alternatives Analysis *(see Chapter 7)*	Concerns related to: • Evaluation of a Rural Preservation Alternative. • Inclusion of a range of feasible alternatives.

All of the above issues are addressed in this EIR, in the relevant sections identified in the first column.

1.9 DRAFT EIR AND PUBLIC REVIEW

This Draft EIR is being circulated for public review and comment for a period of 45 days. During this period, the general public, organizations, and agencies can submit comments to the Lead Agency on the Draft EIR's accuracy and completeness. Release of the Draft EIR marks the beginning of a 45-day public review period pursuant to CEQA Guidelines Section 15105. The public can review the Draft EIR at the City's website at the following page:

https://elkgrove.gov/planning/environmental-review

or at following addresses during normal business hours:

City of Elk Grove
Community Development Department-Planning Division
8401 Laguna Palms Way
Elk Grove, CA 95758

Elk Grove Library
9800 Elk Grove Boulevard
Elk Grove, CA 95624

All comments or questions regarding the Draft EIR should be submitted in written form and addressed to:

City of Elk Grove Community Development Department
Planning Division
c/o Kyra Killingsworth
8401 Laguna Palms Way
Elk Grove, CA 95758
Email: kkillingsworth@elkgrove.gov

1.10 ORGANIZATION OF THE DRAFT EIR

The EIR is organized into the following sections:

Chapter 1 – Introduction

Provides an introduction and overview describing the intended use of the EIR and the review and certification process, as well as summaries of the chapters within the EIR and summaries of the issues and concerns received from the public and public agencies during the NOP review period.

Chapter 2 – Executive Summary
Summarizes the elements of the project and the environmental impacts that would result from implementation of the Project, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation. In addition, the Executive Summary includes a summary of the project alternatives and areas of known controversy.

Chapter 3 – Project Description
Provides a detailed description of the Project, including the project's location, background information, objectives, and technical characteristics.

Chapter 4 – Existing Environmental Setting, Impacts, and Mitigation
Contains a project-level and cumulative analysis of environmental issue areas associated with the Project. The section for each environmental issue contains an introduction and description of the setting of the site, identifies impacts for the Project, and recommends appropriate mitigation measures.

Chapter 5 – Effects Not Found to be Significant
The Effects Not Found to be Significant chapter of the EIR addresses the Project's effects that were determined not to be significant. CEQA Guidelines Section 15128 requires a brief discussion explaining why these effects were not found to be significant.

Chapter 6 – Statutorily Required Sections
The Statutorily Required Sections chapter of the EIR provides discussions required by CEQA regarding impacts that would result from the Project, including a summary of cumulative impacts, potential growth-inducing impacts, significant and unavoidable impacts, and significant irreversible changes to the environment.

Chapter 7 – Alternatives Analysis
The Alternatives Analysis chapter of the EIR describes and evaluates a reasonable range of potentially feasible alternatives to the Project. The alternatives are analyzed at a level of detail less than that of the Project; however, the analyses include sufficient detail to allow for a meaningful comparison of impacts.

Chapter 8 – References
The References chapter of the EIR provides bibliographic information for all references and resources cited.

Chapter 9 – EIR Authors and Persons Consulted
The EIR Authors and Persons Consulted chapter of the EIR lists EIR and technical report authors who provided technical assistance in the preparation and review of the EIR.

Appendices
The Appendices include the NOP, comments received during the NOP comment period, and technical reports prepared for the Project.

2. Executive Summary

2. EXECUTIVE SUMMARY

2.1 INTRODUCTION

The Executive Summary chapter of the EIR provides an overview of the proposed Summer Villas Special Planning Area Project (Project) (see Chapter 3, Project Description, for further details) and provides a table summary of the conclusions of the environmental analysis provided in Chapters 4.1 through 4.11. This chapter also summarizes the alternatives to the Project that are described in Chapter 7, Alternatives Analysis, and identifies the Environmentally Superior Alternative. Table 2-1 contains the environmental impacts associated with the Project, the significance of the impacts, the proposed mitigation measures for the impacts, and the significance of the impacts after implementation of the mitigation measures.

2.2 SUMMARY DESCRIPTION OF THE PROJECT

The approximately 115.9-acre Project site (site), identified by Assessor's Parcel Number (APN) 127-0010-077, is located at 9350 Sheldon Road, southeast of the intersection of Sheldon Road and Waterman Road, in the northeastern portion of the City of Elk Grove in Sacramento County, California. The site is located within the City's Rural Area Community Plan. Both the Rural Area Community Plan and the City of Elk Grove General Plan designate the site as Rural Residential (RR). The site is zoned Agricultural Residential-Two Acre Minimum (AR-2).

The site is currently developed with a single-unit residence, which is currently occupied, and accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries generally run from the northern boundary of the site to the southern boundary of the site.

Surrounding existing uses include rural residences and rural estate residences the north, across Sheldon Road; undeveloped land and rural residences to the east; rural residences and a high school/middle school complex to the southeast; rural residences to the west, across Waterman Road; and mostly undeveloped land with horse rescue operations to the south. In addition, the Elliot Springs Subdivision is currently under construction to the southwest.

Project Description

The Project would require a General Plan/Rural Area Community Plan Amendment, a Rezone, and would consist of the creation of a 115.9-acre Summer Villas Special Planning Area (SPA). The Summer Villas SPA contains three distinct sub-zones: 1) Active Adult Neighborhood (71.3 acres), 2) Laguna Creek Open Space (20.3 acres), and 3) Waterman Recreational Open Space (19.4 acres). It should be noted that the remaining 4.9 acres of the site are dedicated to the Waterman Road and Sheldon Road right-of-way (ROW). The SPA does not entitle any specific development proposals. Rather, the SPA adopts site-specific zoning, development standards, and criteria for future development proposals within the site. However, given the sub-zones included in the SPA, a reasonable assumption can be made that on-site development of a senior-based housing community would occur if the SPA is approved by the City. The subsequent potential development of the 115.9-acre site includes a maximum of 499 age-restricted (55+) single-unit residences, described in further detail below.

The 71.3-acre Active Adult Neighborhood sub-zone of the Summer Villas SPA includes two Active Adult Neighborhoods: the 31.3-acre West Neighborhood and the 40.0-acre East Neighborhood. This EIR assumes a maximum of 349 age-restricted single-unit residences would be developed in the East Neighborhood, and a maximum of 150 age-restricted single-unit residences would be developed in the West Neighborhood, for a maximum of 499 age-restricted single-unit residences to be developed within the SPA. The two neighborhoods would be bisected by the centrally located Laguna Creek Open Space area, and the West Neighborhood would be buffered from Waterman Road by the Waterman Recreational Open Space area. The Laguna Creek Open Space area would allow for the preservation of the Laguna Creek corridor and the protection of sensitive on-site wildlife habitat, and the only development that would occur in the area would be a pedestrian bridge to connect the two Active Adult Neighborhoods. The Waterman Recreational Open Space area would allow for several active and passive recreational amenities including a publicly accessible multi-use trail connection that would run north-south, parallel with Waterman Road, or trail connections, and amenities associated with the private community recreation center/clubhouse with hard courts and visitor parking. Development of the Summer Villas SPA would also include various associated improvements, such as a private community recreation center/clubhouse, private park space, trails, private and public open space areas, landscaping, and a number of on- and off-site roadway and utility improvements. The Project would include water, sanitary sewer, and stormwater improvements, including the construction of both on- and off-site water transmission mains and networks, an on-site sewer lift station and off-site sewer force mains, and on-site storm drain pipeline infrastructure. Off-site roadway improvements would include the reconfiguration of the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road Roundabouts to include two lanes and widening the approaches into and out of the intersections.

Project Determinations

The Project would require City of Elk Grove approval of the following entitlements:

- Certification of the EIR, including adoption of Findings of Fact, a Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Program;
- General Plan/Rural Area Community Plan Amendment to remove the site from the Rural Area Community Plan and modify the land use designation from RR to Low Density Residential (LDR) and Parks and Open Space (P/OS);
- SPA Ordinance for the Summer Villas SPA;
- Text Amendment to the Elk Grove Municipal Code (EGMC) to add the new SPA; and
- Rezone from AR-2 to SPA.

Future development within the Summer Villas SPA would also require additional entitlements from the City and other jurisdictional agencies and service providers, as necessary. Such entitlments include, but are not limited to, Tentative Map and/or Site Plan, Final Map, and recordation, Improvement Plan, Grading Permit, Encroachment Permit, Design Review (as required by Section 23.16.080 of the EGMC), Building Permit, and annexations into Community Facilities District (CFD) service areas.

The Project may also require permits from a number of other agencies, including, but not limited to, the following:

- Cosumnes Community Service District (CSD);
- Regional Water Quality Control Board (RWQCB) – Central Valley Region);

- SacSewer;
- U.S. Army Corps of Engineers (USACE);
- California Department of Fish and Wildlife (CDFW);
- U.S. Fish and Wildlife Service (USFWS);
- Sacramento Metropolitan Air Quality Management District (SMAQMD); and
- Elk Grove Water District (EGWD)/Sacramento County Water Agency (SCWA).

Please refer to Chapter 3, Project Description, of this EIR for a detailed description of the Project and entitlements, as well as a full list of the Project objectives.

2.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, mineral, flora, fauna, ambient noise, and objects of historic or aesthetic significance. Mitigation measures must be implemented as part of the Project to reduce potential adverse impacts to a less-than-significant level. Such mitigation measures are noted in this EIR and are found in the following technical chapters: Aesthetics; Air Quality, Greenhouse Gas Emissions, and Energy; Biological Resources; Cultural and Tribal Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; and Transportation. The mitigation measures required for the Project, as presented in this EIR, will form the basis of the Mitigation Monitoring Plan. Any impact that remains significant after implementation of mitigation measures is considered a significant and unavoidable impact.

A summary of the Project impacts are identified for each technical chapter (Chapters 4.1 through 4.11) of the EIR is presented in Table 2-1 at the end of this chapter. In addition, Table 2-1 includes the level of significance of each impact, any mitigation measures required for each impact, and the resulting level of significance after implementation of mitigation measures for each impact.

2.4 SUMMARY OF PROJECT ALTERNATIVES

The following section presents a summary of the alternatives evaluated in this EIR for the Project, which include the following:

- No Project (No Build) Alternative;
- No Project (Buildout Pursuant to General Plan) Alternative; and
- Aquatic Resource Avoidance Alternative.

The following summary provides brief descriptions of the alternatives to the Project that are evaluated in this EIR. For a more thorough discussion of project alternatives, please refer to Chapter 7, Alternatives Analysis.

No Project (No Build) Alternative

The No Project (No Build) Alternative assumes that the current conditions of the site would remain, and the site or off-site improvements would not be developed. As described in this EIR, the site is currently developed with a single-unit residence, which is currently occupied, and accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries generally run from the northern boundary of the site to the southern boundary of the site. Because residential uses or a bicycle and pedestrian trail network would not be developed, the No Project (No Build) Alternative

would not meet the majority of the project objectives. However, the Alternative would fully satisfy Objective #5 and Objective #6 related to preservation of open space due to the preservation of existing natural habitat throughout the site. Because changes to the site would not occur under the No Project (No Build) Alternative, impacts would not occur related to any issue areas, and mitigation would not be required.

No Project (Buildout Pursuant to General Plan) Alternative

The No Project (Buildout Pursuant to General Plan) Alternative would consist of buildout of the site according to the current City of Elk Grove General Plan land use designations. The existing single-unit residence, which is currently occupied, and accessory structures in the northwest corner of the site would remain on-site and would not be demolished under the Alternative. The site is located within the City's Rural Area Community Plan. Both the Rural Area Community Plan and the City of Elk Grove General Plan designate the site as RR. The RR land use designation provides for large-lot rural residential development. Limited agricultural uses and animal-keeping are also allowed, and lot sizes typically range from two to 10 acres. The allowable residential density for the RR land use designation ranges from a minimum of 0.1 dwelling units per acre (du/ac) to a maximum of 0.5 du/ac. While the entire site is currently designated as RR, the Alternative would result in a total developable area of 71.3 acres of RR uses. The 20.3-acre Laguna Creek riparian corridor would not be developed with RR uses under the Alternative. In addition, similar to the Project, the existing utility easement, which would be included within the 19.4-acre P/OS area under the Project, would not be developed under the Alternative, and 4.9 acres of Waterman Road and Sheldon Road would be improved under the Alternative. As such, under the No Project (Buildout Pursuant to General Plan) Alternative, a maximum of 35 residential units could be developed within a reasonably developable area of 71.3 acres (115.9 total acres – 19.4-acre P/OS – 20.3 Laguna Creek riparian corridor – 4.9 acres of roadway = 71.3-acre developable area).

Because the No Project (Buildout Pursuant to General Plan) Alternative would include development of the site with single-unit residential uses located within the existing rural community within northeastern Elk Grove, would include open space areas, would develop an on-site bicycle and pedestrian trail network, and would be compatible with surrounding land uses, Objectives #5 through #8 would generally be met. However, because the Alternative would not remove the property from its Rural Residential designation, provide 499 residential units, increase the diversity of housing types, or cluster residential units, Objectives #1 through #4 would not be met under the Alternative.

The significant impacts that would be reduced under the Alternative are as follows:

- In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point) or, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality (remains significant and unavoidable);
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (remains significant and unavoidable);
- Long-term changes in visual character associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove (remains significant and unavoidable);

- Creation of new sources of light or glare associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove;
- Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;
- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction;
- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation;
- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure);
- Cumulative unplanned population growth; and
- Generation of a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Overall, impacts related to Aesthetics; Cultural and Tribal Cultural Resources; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning/Population and Housing; and Noise would be fewer under the No Project (Buildout Pursuant to General Plan) Alternative as compared to the Project; impacts related to Air Quality; Greenhouse Gas Emissions, and Energy; Biological Resources; Geology and Soils; and Transportation would be similar under the Alternative as compared to the Project. The significant and unavoidable impacts related to Aesthetics; Air Quality, Greenhouse Gas Emissions, and Energy; and Transportation would still occur under the Alternative.

Aquatic Resource Avoidance Alternative

The Aquatic Resource Avoidance Alternative would consist of a similar buildout of the components of the Project on a reduced development footprint in order to further avoid, to the extent feasible, impacts to aquatic resources. The Aquatic Resource Avoidance Alternative would maintain the same overall residential density as the Project, consisting of approximately seven du/ac within the areas proposed for residential development. However, unlike the Project, the Aquatic Resource Avoidance Alternative would not include development of residential uses and associated improvements within the West Neighborhood or the Waterman Recreational Open Space area. The Alternative would include a total development area consistent with the existing General Plan designation, with the exception of the western portion of the site. As such, the footprint under the Alternative would include the 40-acre East Neighborhood and the 20.3-acre

Laguna Creek open space area. Thus, using a density of seven du/ac within a 60.3-acre footprint, the Alternative would result in a total of 422 units.

Pursuant to General Plan Policy NR-1-9, development clustering shall be encouraged 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. As such, the Alternative would cluster all residential units within the East Neighborhood, with no development occurring in the 20.3-acre Laguna Creek open space area. The remaining 71 acres of the site would remain undeveloped open space in order to preserve aquatic resources in the western portion of the site, and the pedestrian bridge over Laguna Creek would not be developed. However, utility extensions would still be required along Sheldon Road. Similar to the proposed water line extension, an off-site four- to six-inch diameter force main would be required along Sheldon Road and would cross Laguna Creek by either bore and jack under Laguna Creek or alternatively, attaching the line to the existing Sheldon Road Bridge. In addition, the proposed on-site lift station and the private community recreation center/clubhouse would also be included as part of the clustered development within the East Neighborhood.

Because the Aquatic Resource Avoidance Alternative would include development of the site with residential uses located within the existing rural community and an on-site bicycle and pedestrian trail network could still be developed within the east neighborhood to provide walkways connecting to the private community recreation center/clubhouse, Objective #1 and Objective #7 would be fully satisfied. In addition, Objectives #3 and #8 would be met, as the Alternative would increase the diversity of housing types available and would be compatible with surrounding land uses. Objectives #4, #5, and #6 would be satisfied to a greater extent, as the Alternative would further preserve existing aquatic resources, natural habitat, and open space through increased clustered development. However, Objective #2 would not be satisfied due to the decreased number of units that would be developed under the Aquatic Resource Avoidance Alternative.

The significant impacts that would be reduced under the Alternative are as follows:

- In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point) or, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality (remains significant and unavoidable);
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (remains significant and unavoidable);
- Long-term changes in visual character associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove (remains significant and unavoidable);
- Creation of new sources of light or glare associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove;
- Impacts to special-status plant species either directly (e.g., threaten to eliminate a plant community) or through substantial habitat modifications;
- Have a substantial adverse effect, either directly or through habitat modifications, on Crotch's bumblebee;
- Have a substantial adverse effect, either directly or through habitat modifications, on special-status branchiopod species;

- Have a substantial adverse effect, either directly or through habitat modifications, on monarch butterfly;
- Have a substantial adverse effect, either directly or through habitat modifications, on western spadefoot;
- Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle;
- Have a substantial adverse effect, either directly or through habitat modifications, on nesting birds and raptors protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC);
- Have a substantial adverse effect, either directly or through habitat modifications, on roosting bats;
- Have a substantial adverse effect, either directly or through habitat modifications, on American badger;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community, or State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or have a substantial adverse effect on the environment by converting oak woodlands or impacting individual trees;
- Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074;
- Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, or be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, creating substantial risks to life or property;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;
- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction;
- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation;



- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure) (remains significant and unavoidable);
- Cumulative unplanned population growth (remains significant and unavoidable); and
- Generation of a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (remains significant and unavoidable).

Though the above mentioned significant and unavoidable impacts would be reduced under the Aquatic Resource Avoidance Alternative, the associated mitigation measures would still be required, and the impacts would remain significant and unavoidable. Overall, impacts related to Aesthetics; Biological Resources; Cultural and Tribal Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning/Population and Housing; and Noise would be fewer under the Aquatic Resource Avoidance Alternative as compared to the Project; impacts related to Air Quality, Greenhouse Gas Emissions, and Energy; and Transportation would be similar under the Alternative as compared to the Project. The significant and unavoidable impacts related to Air Quality, Greenhouse Gas Emissions, and Energy and Transportation would remain similar under the Alternative as compared to the Project.

Environmentally Superior Alternative

An EIR is required to identify the Environmentally Superior Alternative from among the range of reasonable alternatives that are evaluated. Section 15126(e)(2) of the CEQA Guidelines requires that an Environmentally Superior Alternative be designated and states, “If the Environmentally Superior Alternative is the ‘no project’ Alternative, the EIR shall also identify an Environmentally Superior Alternative among the other alternatives.” The No Project (No Build) Alternative would not meet any of the project objectives, because the site would not undergo further development. As discussed in Chapter 7, Alternatives Analysis, of this EIR, the impacts resulting from the Project would not occur under the No Project (No Build) Alternative, as the site is assumed to remain in its current condition under the Alternative. As such, the No Project (No Build) Alternative would be considered the environmentally superior alternative. However, in accordance with Section 15126(e)(2) of the CEQA Guidelines, if the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Although the No Project (No Build) Alternative would result in fewer impacts related to six of the 10 issue areas and would reduce significant and unavoidable impacts related to Noise and Land Use and Planning/Population and Housing, because the Alternative is a “no project” alternative, the Alternative would not be considered the environmentally superior alternative. As discussed in detail in the Alternatives Analysis chapter of this EIR and presented in Table 7-2 therein, the Aquatic Resource Avoidance Alternative would result in fewer impacts than the Project related to eight of the 10 issue areas, and would result in similar impacts as the Project for the remaining two issue areas for which project impacts were identified. However, under the Aquatic Resource Avoidance Alternative, the significant and unavoidable impacts related to Aesthetics; Air Quality, GHG Emissions, and Energy; Land Use and Planning/Population and Housing; Noise; and Transportation would still occur. Because the Aquatic Resource Avoidance Alternative would include development of the site with the proposed uses on the eastern portion of the site, most Project objectives would be met. However, because the Aquatic Resource Avoidance Alternative



would include the development of fewer residential units than the Project, the Alternative would not satisfy Objective #2. Overall, the Aquatic Resource Avoidance Alternative is the only alternative in which the majority of Project impacts would be reduced. Thus, the Aquatic Resource Avoidance Alternative is considered the environmentally superior alternative.

2.5 AREAS OF CONTROVERSY

The CEQA Guidelines, Section 15123(b), require that this EIR consider areas of controversy known to the lead agency, including issues raised by agencies and the public. Areas of controversy that were identified in Notice of Preparation (NOP) comment letters on the Project should be considered, as well. The areas of known controversy for the Project relate to the following:

- Project description detail;
- Flood basin locations;
- Impacts to views with the change from agricultural landscape to urban development;
- Impacts to the rural character of the neighborhood;
- Impacts to views from surrounding rural residential land uses;
- Impacts to views of wetlands and open space;
- Impacts of asphalt grindings on views from roadways;
- Impacts to dark skies associated with light pollution;
- Climate change impacts associated with development and operational energy use;
- Impacts to air quality in the Sacramento Valley Air Basin (SVAB);
- Impacts to biological resources;
- Preservation of native plants and wildlife;
- Provision of a habitat type assessment and biological inventory;
- Provision of background information including rare or unique environmental resources;
- Impacts to wetlands;
- Inclusion of adequate avoidance, minimization, and/or mitigation measures for biological resource impacts;
- Compliance with Senate Bill (SB) 52 and SB 18;
- Assessment of the presence of sacred tribal lands on-site;
- Conflicts with Elk Grove's agricultural heritage;
- Wildfire risk;
- Impacts associated with the former on-site agricultural uses;
- Adequate soil sampling;
- Impacts to flooding and identification of the 100- and 200-year flood plain;
- Impacts to surface and groundwater quality during construction and operation;
- Impacts associated with the use of existing septic systems and wells;
- Access to Laguna Creek;
- Impacts associated with surface runoff to Laguna Creek;
- Impacts of impermeable landscape on aquifer recharge;
- Compliance with the South American Subbasin Groundwater Sustainability Plan;
- Implementation of a Storm Water Prevention Plan;
- Compliance with the Central Valley Regional Water Quality Control Board (CVRWQCB) regulations;
- Impacts of asphalt grinding on runoff to Laguna Creek;

- Compliance with all permitting requirements related to stormwater discharges and the Clean Water Act;
- Inclusion of adequate avoidance, minimization, and/or mitigation measures for hydrological impacts;
- Compatibility with the adjacent AR zoning districts;
- Variances, rezoning, and consistency with the existing neighborhood and infrastructure;
- Impacts of urban development on surrounding areas;
- Developmental noise impacts;
- Noise impacts associated with increased traffic;
- Impacts associated with construction noise;
- Impacts associated with increased demand on utility infrastructure;
- Impacts to existing wells and septic systems;
- Impacts associated with increased demand on roadway infrastructure;
- Impacts associated with increased demand on fire and police department services and facilities;
- Impacts associated with increased demand on health services;
- Impacts to emergency response times;
- Impacts associated with solid waste services;
- Impacts associated with degradation of natural resources;
- Impacts associated with new public water and sewer infrastructure;
- Provision of a statistical projection of increased number of vehicles;
- Provision of a vehicle miles traveled (VMT) analysis;
- Provision of a queuing analysis for State Route (SR) 99 off-ramps;
- Consistency with a Multimodal Transportation Plan;
- Fair share towards upgrades to existing SR 99 ramps;
- Impacts associated with increased traffic, infrastructure development, and roadway construction along Sheldon Road and Waterman Road;
- Compliance with encroachment permits;
- Impacts to pedestrian transportation, including walking, biking, and equestrian access;
- Impacts to the Sheldon Road equestrian riding access trails;
- Increase of safety hazards associated with traffic on Sheldon Road;
- Impact on retail services demand associated with increased population;
- Cumulative impact of development on the surrounding area;
- Evaluation of a Rural Preservation Alternative; and
- Inclusion of a range of feasible alternatives.

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.1 Aesthetics			
4.1-1 In a non-urbanized area, substantially degrade the existing visual character or quality of views of the site and its surroundings.	S	*None feasible.*	SU
4.1-2 In an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	LS	*None required.*	N/A
4.1-3 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	S	*4.1-3 In conjunction with submittal of the first tentative subdivision map for the Project, the developer shall submit a lighting plan and photometric plan for review and approval by the City of Elk Grove Community Development Department. The lighting and photometric plans shall address limiting light trespass and glare on the site to 0.1 footcandle through the use of shielding and directional lighting methods, which may include, but is not limited to, fixture location and height. The lighting and photometric plans shall comply with Elk Grove Municipal Code (EGMC) Chapter 23.56 and the applicable standards of the Summer Villas SPA.*	SU
4.1-4 Long-term changes in visual character associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove.	S	*None feasible.*	SU

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Table 2-1
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4.1-5 Creation of new sources of light or glare associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove.	CC	*4.1-5 Implement Mitigation Measure 4.1-3.*	LCC
4.2 Air Quality, Greenhouse Gas Emissions, and Energy			
4.2-1 Conflict with or obstruct implementation of the applicable air quality plan during project construction.	LS	*None required.*	N/A
4.2-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation.	LS	*None required.*	N/A
4.2-3 Expose sensitive receptors to substantial pollutant concentrations.	LS	*None required.*	N/A
4.2-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LS	*None required.*	N/A
4.2-5 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.	LS	*None required.*	N/A
4.2-6 Result in a cumulatively considerable net increase of any criteria pollutant for which	LCC	*None required.*	N/A

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Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation		Mitigation Measures	Level of Significance After Mitigation
	the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).				
4.2-7	**Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.**	CC	*4.2-7(a)*	*The following requirements shall be noted on Project improvement plans, subject to review and approval by the City of Elk Grove Community Development Department:* • *The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces; and* • *The Project shall either (i) be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; or (ii) be designed to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and the Applicant shall purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric, as set forth in further detail below.*	CC/SU

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		The emissions from any use of natural gas shall be calculated by a qualified professional utilizing SMAQMD-, CARB-, or the USEPA-approved emissions models and quantification methods available and submitted to the City for review and approval, which shall include third-party review by a qualified consultant of the City's selection and be subject to applicant reimbursement of consultant costs. *Any and all GHG credits to offset for the use of natural gas must be created through a CARB-approved registry. These registries are currently the ACR, CAR, and Verra, although CARB may accredit additional registries in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. The selected protocol must demonstrate that the GHG-emissions reductions are real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR 95802(a) are provided below.* *(1) Real: GHG reductions or enhancements result from a demonstrable action or set of*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the [GHG credit] project boundary and account for uncertainty and the potential for activity-shifting and market-shifting leakage. *(2) Additional: GHG reductions or removals that exceed any GHG reduction, or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario.* *(3) Permanent: GHG reductions and removal enhancements are not reversible or, when GHG reductions and GHG-removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG-emission reductions and GHG-removal enhancements to ensure that all credited reductions endure for at least 100 years.* *(4) Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG-removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the [GHG credit] project boundary, while*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		accounting for uncertainty. activity-shifting, and market-shifting leakage. *(5) Verifiable: A [GHG credit] project report assertion is well-documented and transparent such that it lends itself to an objective review by an accredited verification body.* *(6) Enforceable: The authority for CARB to hold a particular party liable and take appropriate action if any of the provisions of this article are violated. Note that this definition of enforceability is specific to the Cap-and-Trade regulation, where CARB holds enforcement authority, but this measure will employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and backed by a legal instrument or contract that defines exclusive ownership.* ***Geographic Prioritization of GHG Credits*** *GHG credits from reduction projects in the City will be prioritized before projects in larger geographies (i.e., northern California, California, United States, and international). The applicant will inform brokers of the required geographic prioritization for the procurement of GHG credits. GHG credits from reduction projects identified in the City that are of equal or lesser cost*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		compared to the settlement price of the latest Cap-and-Trade auction must be included in the transaction. GHG credits from reduction projects outside of the City may be purchased if adequate credits cannot be found in the City or if they exceed the maximum price identified above. The economic and geographic analysis undertaken to inform the selection of GHG credits must be provided by the applicant to the City as part of the required documentation discussed below under Plan Implementation and Reporting. ***Types of GHG Credits*** *GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project-generated emissions at any time. GHG credits from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated*	

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Summary of Impacts and Mitigation Measures

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		through a prorated surcharge of additional FMUs proportional to the effect of the delay. Because emissions of CO2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10 percent for every year of lag between project emissions and their reduction through a FMU will be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 metric ton of project GHG emissions generated in the year prior to funding and implementation of the FMU). ***Verification and Independent Review of GHG Credits*** *All GHG credits will be verified by an independent verifier accredited by the ANSI National Accreditation Board (ANAB) or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the accreditation board (i.e., ANAB or CARB), the verifier will certify the following.* • *GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. Verification of the latter requires certification that the credits meet or exceed the standards in 17 CCR 95972.*	

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		• *GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.* • *GHG credits are purchased according to the geographic prioritization standard defined in this measure under Geographic Prioritization of GHG Credits.* *Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that will result from future projects, additional verification must occur beyond initial certification is required. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification will examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. The applicant will retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project.* *4.2-7(b) Prior to issuance of any grading or building permits, Project Grading and Building Plans shall demonstrate compliance with the following applicable measures included in the City's Climate Action Plan, to the satisfaction of the City of Elk Grove Community Development Department:*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *BE-4: The Project shall comply with 2019 CALGreen Tier 1 standards, including a 15 percent improvement over minimum Title 24, Part 6, Building Energy Efficiency Standards.* • *BE-6: The Project shall require at least 10 percent of the proposed residential units to include exclusively electric appliances and HVAC systems.* • *BE-7: The Project shall include rooftop solar PV panels.* • *TACM-8: All off-road construction fleet used during construction of the Project shall include Environmental Protection Agency certified off-road Tier 4 diesel engines (or better).* *4.2-7(c) Implement Mitigation Measures 4.11-4.*	
4.2-8 Result in a cumulatively considerable inefficient or wasteful consumption of energy or conflict with a State or local plan for renewable energy or energy efficiency.	LS	*None required.*	N/A
4.3 Biological Resources			
4.3-1 Impacts to special-status plant species either directly (e.g., threaten to eliminate a plant community) or through substantial habitat modifications.	S	*4.3-1(a) Prior to approval of any improvement plans, a special-status plant survey shall be conducted at the time of year when special-status/rare plant species are both evident and identifiable. The survey shall be conducted by a qualified botanist for all areas of suitable habitat for special-status plants within the*	LS

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		final development footprint not surveyed during the 2024 protocol special-status plant survey. If construction in areas surveyed in 2024 does not commence prior to July 1 of 2027, another round of special-status plant surveys shall be conducted in areas proposed for impact prior to commencement of construction. The survey(s) shall be conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the California Native Plant Society (CNPS) Botanical Survey Guidelines of the California Native Plant Society, and California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The results of the survey(s) shall be submitted to the City of Elk Grove Community Development Department prior to the commencement of construction activities. *If special-status/rare plant species are not identified during the survey(s), further mitigation is not necessary. If special-status/rare plant species are identified, an "Avoidance Zone" shall be established. If a federal Endangered Species Act (FESA) or California Endangered Species Act (CESA) listed special-status plant is found, then the appropriate Avoidance Zone shall be developed in consultation with USFWS or CDFW (as applicable). If the species*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		is not listed under FESA or CESA, the appropriate Avoidance Zone shall be developed by a qualified botanist in consultation with the City. Avoidance Zone areas may differ by species and site-specific conditions, and shall be developed such that the avoided special- status plant population is likely to persist in perpetuity. Avoidance Zones may be based on a fixed buffer distance from the special-status plant population, at the limit of a hydrologic break, or as otherwise determined appropriate for the species in question. A 100-foot buffer is an appropriate Avoidance Zone for legenere. The 100-foot buffer could be reduced if a hydrologic break exists between the plants and proposed development such that the development would not impact hydrology for the plants. In addition to the Avoidance Zone, the Project shall be designed such that unseasonal or landscaping water is not directed into the wetland, and residential backyards are not located along the edge of the Avoidance Zone. *If any special-status plants cannot be avoided and grading or other disturbance would occur within mapped population areas, including the mapped populations of legenere within the study area, the Project proponent shall develop a Special-Status Plant Mitigation Plan for review and approval by the City of Elk Grove Community Development Department prior to issuance of a grading permit that would impact the plants. The Special-Status Plant*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Mitigation Plan shall include the following mitigation options: *1. <u>Preservation</u>: Identify existing, unprotected populations of the special-status plant that would be impacted by the Project in the Project vicinity and protect the population in perpetuity by establishing a preserve on other land that supports those populations. Once the proposed mitigation area is approved by the City of Elk Grove Community Development Department, the mitigation area shall be protected by a recorded conservation easement or deed restriction and managed in accordance with a long-term management plan that maintains the habitats the conservation easement was established to protect (including the special-status plants). Additionally, a preserve management endowment shall be established to fund the long-term management outlined in the long-term management plan, or sufficient annual management funding shall be a condition of a Homeowner's Association, Community Services District, or other alternative as approved by the City. As the preservation mitigation option would preserve an existing, established population, temporal loss would not occur, and a low risk of failure would occur. As a result, the required mitigation ratio for the preservation option would be 1:1. The 1:1 ratio may be based on the*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		acreage of occupied habitat or number of plants; the ratio shall be clearly defined in the Special-Status Plant Mitigation Plan. Alternatively, the preservation option may be implemented at a mitigation/conservation bank if the target plant species is present at the bank, and the Special-Status Plant Mitigation Plan shall describe how the purchase of bank credits translates into appropriate 1:1 preservation. 2. *<u>Relocation or Translocation:</u> Mitigate impacts by establishment of a new special-status plant population or expansion of an existing special-status plant population. The proposed mitigation area may be on-site or off-site and shall be permanently protected by the recordation of a conservation easement or deed restriction, development of a long-term management plan that maintains the habitats that the conservation easement was established to protect, and include the establishment of a preserve management endowment, or sufficient annual management funding shall be a condition of a Homeowner's Association, Community Services District, or other alternative as approved by the City of Elk Grove Community Development Department or regulating agency. The Project proponent shall locate and protect the mitigation area(s), translocate seeds or relocate perennial plants to the mitigation area(s), monitor the translocated/relocated seeds/plants for a*	

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Summary of Impacts and Mitigation Measures

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		minimum of five years, and meet established success criteria as detailed in the Special-Status Plant Mitigation Plan. The minimum success criterion for the relocation or translocation option would be 2:1 replacement of directly impacted plants and 1:1 replacement for indirectly impacted plants by year five of monitoring. The 2:1 ratio may be based on the acreage of occupied habitat or number of plants; the ratio shall be clearly defined in the Special-Status Plant Mitigation Plan. If the success criteria are not met, then additional habitat shall be set aside as set forth under Option 1 or as agreed upon by the City as appropriate. Because population sizes for annual plants can vary widely from year to year, for Option 2, population counts or acreage mapping shall be conducted in the last two years of monitoring, and the highest count or acreage shall be at least equivalent to the number of required replacement plants. 3. *<u>Avoidance and Monitoring:</u> Work shall only be allowed within the Avoidance Zone if the Project proponent elects to hire a qualified biologist, as approved by the City, to determine that such work within the Avoidance Zone would not indirectly impact the plant population and then to monitor the potentially indirectly impacted plant population for five years to document the lack of impact. The allowable types of construction activities and the allowable length, width, and*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		timing of encroachment into the Avoidance Zone shall be determined by the qualified biologist. The Project proponent shall prepare a monitoring plan submitted to the applicable agency (City, CDFW, and/or USFWS), as determined by the qualified biologist, for approval prior to grading permit issuance, and that shall include monitoring methodology, success criteria (i.e., what conditions will demonstrate the lack of impact), considerations for drought years and adjacent land uses, and reporting. If at the end of the monitoring period, the population is determined to have substantially decreased, the plants shall be mitigated as outlined in Options 1 or 2 above at a ratio of 1:1. *4.3-1(b) Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training (WEAT) shall be prepared and administered to the construction crews. The WEAT shall address the FESA and CESA; the Clean Water Act and/or Porter-Cologne Act; the Project's permits and CEQA documentation and associated mitigation measures; consequences and penalties for violation or noncompliance with applicable laws and regulations; identification of special-status wildlife; location of any avoided resources; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status species. The WEAT shall also discuss*	

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		the different habitats used by the species' different life stages and the annual timing of the life stages. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT training, workers shall sign a form to be submitted to the City of Elk Grove Community Development Department stating that they attended the training, understand the information presented and will comply with the regulations discussed. Workers shall be shown designated avoidance areas during the WEAT training; worker access shall be restricted to outside of such areas to minimize the potential for inadvertent environmental impacts. Fencing and signage around the boundary of avoidance areas shall be noted on Improvement Plans.	
4.3-2 Have a substantial adverse effect, either directly or through habitat modifications, on Crotch's bumble bee.	S	*4.3-2* *The provisions contained herein only apply if Crotch's bumble bee remains a candidate species or is listed under CESA at the commencement of construction. Following CDFW's status report on Crotch's bumble bee, if the California Fish and Game Commission finds that the petitioned action is not warranted, the provisions contained herein shall not be required.* *Initial ground-disturbing activities associated with development of any future Tentative Map (e.g., grading, vegetation removal, staging) should take place between September 1 and March 31 (i.e., outside the colony active period) to avoid potential impacts on special-status bumble bees. If initial*	LS

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		ground-disturbing activities does not occur between September 1 and March 31, then at a maximum of 14 days prior to the commencement of construction activities, a qualified biologist shall conduct a preconstruction survey for Crotch's bumble bees in the area(s) proposed for impact. *The survey shall occur during the period from one hour after sunrise to two hours before sunset, with temperatures between 65 degrees Fahrenheit and 90 degrees Fahrenheit, with low wind and zero rain. If the timing of the start of construction makes the survey infeasible due to the temperature requirements, the surveying biologist shall select the most appropriate days based on the National Weather Service seven-day forecast and shall survey at a time of day that is closest to the temperature range stated above. The survey duration shall be commensurate with the physical extent of suitable floral resources (which represent foraging habitat) present within the area proposed for impact, and the level of effort shall be based on the metric of a minimum of one person-hour of searching per three acres of suitable floral resources/foraging habitat. A meandering pedestrian survey shall be conducted throughout the area proposed for impact in order to identify patches of suitable floral resources.* *Suitable floral resources for Crotch's bumble bee include species in the following families:*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Apocynaceae, Asteraceae, Boraginaceae, Fabaceae, and Lamiaceae. Suitable floral resources for western bumble bee include species in the following families: Asteraceae, Fabaceae, Rhamnaceae, and Rosaceae, as well as plants in the genera Eriogonum and Penstemon. *At a minimum, preconstruction survey methods shall include the following:* • *Search areas with floral resources for foraging bumble bees. Observed foraging activity may indicate a nest is nearby, and therefore, the survey duration shall be increased when foraging bumble bees are present;* • *If Crotch's bumble bees are observed, watch any Crotch's bumble bees present and observe their flight patterns. Attempt to track their movements between foraging areas and the nest;* • *Visually look for nest entrances. Observe burrows, any other underground cavities, logs, or other possible nesting habitat;* • *If floral resources or other vegetation preclude observance of the nest, small areas of vegetation may be removed via hand removal, line trimming, or mowing to a height of a minimum of four inches to assist with locating the nest;*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Look for concentrated Crotch's bumble bee activity;* • *Listen for the humming of a nest colony; and* • *If bumble bees are observed, attempt to photograph the individual and identify it to species.* *The biologist conducting the survey shall record when the survey was conducted, a general description of any suitable foraging habitat/floral resources present, a description of observed bumble bee activity, a list of bumble bee species observed, a description of any vegetation removed to facilitate the survey, and their determination of if survey observations suggest a Crotch's bumble bee nest(s) may be present or if construction activities could result in take of Crotch's bumble bees. The report shall be submitted to the City of Elk Grove Community Development Department prior to the commencement of construction activities.* *If bumble bees are not located during the preconstruction survey or the bumble bees located are definitively identified as a common species (i.e., not special-status species), then further mitigation or coordination with the California Department of Fish and Wildlife (CDFW) is not required.* *If any sign(s) of a bumble bee nest is observed, and if the species present cannot be established as a*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		common bumble bee, then construction shall not commence until either (1) the bumble bees present are positively identified as common (i.e., not a special-status species), or (2) the completion of coordination with CDFW to identify appropriate mitigation measures, which may include, but not be limited to, waiting until the colony active season ends, establishment of nest buffers, or obtaining an Incidental Take Permit (ITP) from CDFW. *If Crotch's bumble bees are located, and, after coordination with CDFW, take of Crotch's bumble bees cannot be avoided, the Project applicant shall obtain an ITP from CDFW, and the applicant shall implement all conditions identified in the ITP.* *Consistent with Fish and Game Code Section 2081, mitigation required by any ITP obtained from CDFW shall minimize and fully mitigate any impacts of the authorized take, be roughly proportional in extent to the impact of the take, be capable of successful implementation, and, where various alternative measures are available, maintain the applicant's objectives to the greatest extent possible. Specific required permit conditions may include, but not be limited to, the Project applicant's qualified biologist translocating nesting substrate in accordance with the latest scientific research to another suitable location (i.e., a location that supports similar or better floral resources as the impact area), enhancing floral*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		resources on areas of the site that will remain appropriate habitat, worker awareness training, and/or other measures specified by CDFW.	
4.3-3 Have a substantial adverse effect, either directly or through habitat modifications, on special-status branchiopod species.	S	*4.3-3 Prior to the approval of any future Tentative Map, a qualified biologist shall conduct surveys for special-status branchiopod species in accordance with the USFWS Survey Guidelines for the Listed Large Branchiopods. The results of the survey shall be submitted to the City of Elk Grove Community Development Department prior to the commencement of construction activities. If vernal pool fairy shrimp and vernal pool tadpole shrimp are not found during protocol-level wet and dry season surveys, further mitigation shall not be required.* *If vernal pool fairy or vernal pool tadpole shrimp are found during protocol-level wet or dry season surveys of the vernal pool, seasonal wetland, and seasonal wetland swale, or if protocol-level surveys are not conducted and the presence of the species is assumed, and if avoidance of all potential vernal pool fairy shrimp and vernal pool tadpole shrimp habitat is not possible, as determined by the Project contractor and qualified biologist, the Project proponent or the USACE (depending on the regulatory mechanism) shall consult with the USFWS regarding impacts to vernal pool fairy or vernal pool tadpole shrimp associated with the Project. Regardless of the consultation method, the USFWS shall assign measures to avoid, minimize,*	LS

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		and mitigate impacts to vernal pool fairy shrimp and vernal pool tadpole shrimp and shall require compensatory mitigation. Compensatory measures shall include the following: • *The Project proponent shall prepare a Biological Assessment, including details on potential impacts to and mitigation for impacts to vernal pool fairy shrimp and vernal pool tadpole shrimp, to be submitted to the USACE and/or USFWS.* • *The Project proponent shall abide by mitigation measures developed during the course of the FESA consultation. At a minimum, the applicant shall preserve two acres of vernal pool branchiopod habitat for each acre of unsurveyed or documented occupied habitat impacted. Measures could include preservation, restoration, or enhancement of habitat on- or off-site, purchase of habitat credits from a USFWS-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to USFWS.* • *The Project proponent shall ensure that vernal pools and seasonal wetlands that would not be filled are protected during construction by installing exclusion fencing at the edge of the permitted impact area.*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Construction-related activity may not take place in the exclusion area, and exclusion fencing shall be designed to prevent the discharge of storm water runoff from the impact area into the exclusion zone. Exclusion fencing shall be inspected by the project biologist or a trained on-site monitor at least weekly and immediately before and after storm events. Any breaches to the exclusion fencing shall be reported to the project biologist and repaired promptly. The exclusion fencing shall remain in place until all ground-disturbing construction activity is completed.	
4.3-4 Have a substantial adverse effect, either directly or through habitat modifications, on monarch butterfly.	S	*4.3-4 The provisions contained herein only apply if monarch butterfly remains proposed for listing under FESA at the commencement of construction.* *If construction associated with development of any Tentative Map occurs during the time when milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late September), a preconstruction survey shall be conducted by a qualified biologist within the proposed impact area and a 50-foot buffer in accessible areas for the presence of eggs, larvae (i.e., caterpillars), or pupae, at most, 14 days prior to plant removal. Additionally, other plants immediately adjacent to milkweed plants shall also be searched for chrysalises. If eggs, caterpillars, or pupae are not detected, additional*	LS

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		protection measures are not necessary. A report summarizing the results of the survey shall be submitted for review and approval to the City of Elk Grove Community Development Department. *If eggs, caterpillars, or pupae are found, the plants shall be avoided with a 50-foot buffer until metamorphosis is completed and adult butterflies emerge and leave the host plant. If the eggs, larvae, or chrysalises cannot be avoided, all eggs, larvae, and chrysalises, including the portion of the plant to which they are attached, shall be translocated to an alternative location by a qualified biologist. The location must be a minimum of 50 feet outside of the impact area and contain a similarly sized or larger population of larval host plants. The portions of the plants supporting eggs or chrysalises shall be tied to the live stem of the avoided larval host plant while caterpillars shall be placed directly on a stem or leaf of a larval host plant. Should the species be listed under FESA in the future, coordination with USFWS shall be conducted prior to translocation.*	
4.3-5 Have a substantial adverse effect, either directly or through habitat modifications, on western spadefoot.	S	*4.3-5* *Prior to the commencement of construction activities associated with any future Tentative Map, a survey of all suitable aquatic habitat on the site and off-site improvement areas (including features proposed for avoidance) shall be conducted by sampling the features thoroughly with dipnets during March or early April, when spadefoot tadpoles would be present. In addition, one nocturnal acoustic survey of*	LS

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		all areas within 300 feet of vernal pools and seasonal wetlands shall be conducted. The acoustic survey shall consist of walking through the area and listening for the distinctive snore-like call of the species. Timing and methodology for the acoustic survey shall be based on those described in Distribution of the Western Spadefoot (Spea hammondii) in the Northern Sacramento Valley of California, with Comments on Status and Survey Methodology. The results of the survey shall be submitted to the City of Elk Grove Community Development Department. Note that due to the timing requirements, the surveys would likely occur several months before commencement of construction. If the aquatic survey and the nocturnal acoustic survey are negative, further mitigation shall not be necessary. *If western spadefoot is found within the proposed work area (any area that would be temporarily or permanently disturbed) and the species is not a federally-listed species at the time of construction, the following mitigation measure shall be implemented:* • *Western spadefoot tadpoles (as many as are reasonably possible to capture) shall be captured and relocated by a CDFW-approved biologist either to on-site avoided and fenced aquatic habitat, or to an off-site open space preserve with suitable habitat in*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the vicinity of the study area. If western spadefoot is observed within aquatic habitat proposed for avoidance, then the Project proponent shall either (1) relocate the tadpoles to an off-site open space preserve with suitable habitat in the vicinity of the study area, or (2) install silt fencing along the edge of the proposed impact area within 300 feet of the occupied aquatic habitat to prevent metamorphosed individuals from dispersing into the construction area. *If western spadefoot is identified within the proposed work area and the species is a federally-listed species at the time of construction, the following mitigation measure shall be implemented:* • *The Project proponent shall consult with the USFWS regarding impacts to western spadefoot associated with the Project. The Project proponent shall obtain and comply with any conditions of the appropriate take authorization from the USFWS. The conditions in the take authorization may include, but shall not be limited to fencing off avoided habitat, worker awareness trainings, preservation, restoration, or enhancement of habitat on- or off-site to compensate for indirect and/or direct effects; purchase of habitat credits from an agency- approved*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		mitigation/conservation bank; working with a local land trust to preserve land; or any other method acceptable to USFWS. *If western spadefoot is found adjacent to but outside of the work area, the following measures shall be implemented:* • *The Project proponent shall install exclusion fencing to prevent western spadefoot from moving into the active construction area. Installation of spadefoot exclusion fencing shall be monitored by a qualified biologist. The fencing shall be inspected and repaired, if necessary, at least weekly. The fencing may be removed following the completion of construction.* • *After the exclusion fencing is installed, a western spadefoot survey shall be conducted no more than 24 hours prior to construction in areas within 300 feet of suitable aquatic habitat. If western spadefoot are not found, further mitigation is not necessary. If a western spadefoot is observed within the proposed impact area, a CDFW-approved biologist shall relocate the individual to suitable habitat outside of the proposed impact area prior to construction.* • *If western spadefoot move into the work area at any time, work shall cease, and the Project*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		biologist shall be notified. A CDFW-approved biologist shall relocate the individual to suitable habitat outside of the impact area.	
4.3-6 Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle.	S	*4.3-6 If construction associated with any future Tentative Map would affect inundated portions of Laguna Creek during the active season of northwestern pond turtle (generally April to September), the Project proponent shall conduct a northwestern pond turtle survey to determine whether the species is using Laguna Creek. The survey shall be conducted in accordance with visual encounter survey guidance provided in Chapter 4 of Western Pond Turtle: Biology, Sampling Techniques, Inventory and Monitoring, Conservation, and Management. If northwestern pond turtles are not observed using the aquatic habitat, further mitigation is not necessary.* *If northwestern pond turtles are observed using Laguna Creek within the proposed work area and the species is not a federally listed species at the time of construction, the following measures shall be implemented:* • *Project work within 325 feet of Laguna Creek shall be implemented during the turtles' active season (generally April through September). If northwestern pond turtles are documented to have left the vicinity of the Project, work within 325 feet of Laguna*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Creek may occur outside of this work window. • *Prior to dewatering the work area, a qualified biologist shall prepare a northwestern pond turtle avoidance and management plan for review and approval by the City of Elk Grove Community Development Department. The plan shall include requirements for monitoring during the dewatering process to ensure turtles are not harmed; turtle capture and relocation; exclusion fencing to prevent turtle movement into the work area following dewatering; and encounter protocol should northwestern pond turtles move into the work area following dewatering.* *If northwestern pond turtles are observed using Laguna Creek within the proposed work area and the species is a federally-listed species at the time of construction, the following mitigation measure shall be implemented:* • *The Project proponent shall consult with the USFWS regarding impacts to northwestern pond turtle associated with the Project. The Project proponent shall obtain and comply with any conditions of the appropriate take authorization from the USFWS. The conditions in the take authorization may include, but shall not be limited to fencing off*	

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		avoided habitat, ceasing construction around northwestern pond turtles found on-site, and allowing the turtles to leave on their own, worker awareness trainings, preservation, restoration, or enhancement of habitat on- or off-site to compensate for indirect and/or direct effects; purchase of habitat credits from an agency-approved mitigation/conservation bank; working with a local land trust to preserve land; or any other method acceptable to USFWS. *If northwestern pond turtles are observed using Laguna Creek adjacent to but outside of the work area, the following measures shall be implemented:* • *The Project proponent shall install exclusion fencing to prevent turtles from moving into the active construction area. The fencing shall be inspected and repaired, if necessary, at least weekly. The fencing may be removed following the completion of construction.* • *After the exclusion fencing is installed, a northwestern pond turtle survey shall be conducted no more than 24 hours prior to construction in areas within 325 feet of the limits of inundated areas of Laguna Creek. If northwestern pond turtles are not found, further mitigation is not necessary. If a northwestern pond turtle is observed within*	

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		the proposed impact area, a qualified biologist shall relocate the individual to suitable habitat outside of the proposed impact area prior to construction. • *If northwestern pond turtles move into the work area at any time, work shall cease, and the Project biologist shall be notified. A qualified biologist shall relocate the individual to suitable habitat outside of the impact area.*	
4.3-7 Have a substantial adverse effect, either directly or through habitat modifications, on nesting birds and raptors protected under the MBTA and CFGC.	S	*4.3-7(a)* *If ground disturbance or other construction activities associated with any future Tentative Map are proposed during the bird nesting season (February 1–August 31), a focused survey for nesting raptors and migratory bird nests shall be conducted by a qualified biologist within 14 days prior to the beginning of construction activities in order to identify active nests. In addition, preconstruction (take avoidance) burrowing owl surveys of suitable habitat shall be conducted consistent with the CDFW Staff Report on Burrowing Owl Mitigation. Non-breeding season protocol shall be used for surveys conducted when construction begins between September 1 and January 31 and breeding season protocol shall be used for surveys conducted when construction begins between February 1 and August 31. The survey(s) shall be conducted within the proposed construction area and all accessible areas within the following buffer areas:* • *0.25 mile for Swainson's hawk,*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *500 feet for tree-nesting raptors and burrowing owls, and* • *50 feet for all other species* *If active nests/burrows are not found, further mitigation is not required. Surveys must be repeated if a lapse in construction activity exceeds 14 days and construction resumes during the nesting season. If active nests/burrows are found the following measures shall be required:* • *Active raptor nests: Construction activities shall not take place within 0.25-mile for Swainson's hawk or within 500 feet of other raptor nest(s). The buffer(s) may be removed once a qualified biologist determines the young have fledged and/or are no longer dependent on the nest;* • *Occupied burrowing owl burrows: A minimum buffer of 164 feet shall be established and maintained around the occupied burrow throughout construction. The actual buffer size shall be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation and may be as large as 1,640 feet. Construction activities shall not take place within the buffer, and the no-disturbance buffer shall be*	

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		marked on-site. The buffer may be removed once a qualified biologist determines that the burrow is no longer occupied; • *Active tricolored blackbird nests: Construction activities shall not take place within 500 feet of active nesting colonies, and a no-disturbance buffer shall be marked on-site. The Project proponent shall coordinate with the City of Elk Grove Community Development Department and CDFW to identify appropriate monitoring requirements;* • *Active nests of other birds: Construction activities shall not take place within 100 feet of an active nest, and the no-disturbance buffer shall be marked on-site. The buffer may be removed once a qualified biologist determines the young have fledged and/or are no longer dependent on the nest.* *No-disturbance buffers for all species may be reduced based on consultation and approval by the City for Swainson's hawk, burrowing owl, and tricolored blackbird. The perimeter of protected areas on-site shall be indicated by bright orange temporary fencing. Construction activities or personnel shall not enter protected areas, except with approval of the biologist. If trees containing nests or nests/burrows must be removed as a result of Project implementation, removal shall be completed during the nonbreeding season (September 1 to January*	

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		31) if possible, or after a qualified biologist determines that the young have fledged (during the breeding season). Survey results shall be provided to the City of Elk Grove Community Development Department within 14 days of completion of all surveys. *4.3-7(b) The Project applicant shall implement the following measures to mitigate the potential loss of Swainson's hawk foraging habitat prior to the commencement of construction activities (e.g., grading activities, infrastructure construction) associated with any future Tentative Map: The Project applicant shall acquire conservation easements or other instruments to preserve suitable foraging habitat for Swainson's hawk. The location of the mitigation parcels, as well as the conservation instruments protecting them, shall be approved by the City.* • *The Project applicant shall acquire conservation easements or other instruments to preserve suitable foraging habitat for Swainson's hawk. The location of the mitigation parcels, as well as the conservation instruments protecting them, shall be approved by the City.* • *The amount of land preserved shall be at a ratio provided in Chapter 16.130, Swainson's Hawk Mitigation Fees of the Elk Grove Municipal Code, for each acre developed at*	

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		the site. In deciding whether to approve the land proposed for preservation, the City shall consider the benefits of preserving lands in proximity to other protected lands. The preservation of land shall be secured before any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first. • *The Project applicant shall implement the following minimum conservation easement content standards, or such other requirements as may be updated by the City Council from time to time and as provided in Chapter 16.130:* ○ *The land to be preserved must be found to be suitable Swainson's hawk foraging habitat as determined by the City based on substantial evidence.* ○ *The land shall be protected through either fee title or a conservation easement ("legal agreement") acceptable to the City.* ○ *The legal agreement shall be recordable and contain an accurate legal description of the mitigation land.*	

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		○ *The legal agreement shall prohibit any activity that in the sole discretion of the City substantially impairs or diminishes the land's capacity as suitable Swainson's hawk foraging habitat.* ○ *If the land's suitability as foraging habitat is related to existing agricultural uses on the land, the legal agreement shall protect any existing water rights necessary to maintain such agricultural uses on the land covered by the document and retain such water rights for ongoing use on the mitigation land.* ○ *Mitigation monitoring fees shall be paid to cover the costs of administering, monitoring, and enforcing the document in an amount determined by the City or a third-party receiving entity approved by the City, not to exceed 10 percent of the easement price or a different amount approved by the City Council.* ○ *Interests in mitigation land shall be held in trust by an entity acceptable to the City and/or the City in perpetuity. The entity shall not sell, lease, or convey any interest in*	

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		mitigation land without the prior written approval of the City. ○ *The City shall be named a beneficiary under any legal agreement conveying the interest in the mitigation land to an entity acceptable to the City, and the City shall receive indemnification and defense, and in any legal agreement.* ○ *If any qualifying entity owning an interest in mitigation land ceases to exist, the duty to hold, administer, monitor, and enforce the interest shall be transferred to another entity acceptable to the City or to the City.* • *Before committing to the preservation of any land, the applicant shall obtain approval of the land proposed for preservation.* *4.3-7(c)* *If nesting burrowing owls are found during the preconstruction survey required by Mitigation Measure 4.3-7(a), mitigation for the permanent loss of burrowing owl foraging habitat (defined as all areas of suitable habitat within 250 feet of the active burrow) shall be accomplished at a 1:1 ratio prior to the approval of any future Tentative Maps. The mitigation provided shall be consistent with recommendations in the CDFW Staff Report on*	

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		Burrowing Owl Mitigation and may be accomplished within the Swainson's hawk foraging habitat mitigation area for the Project if burrowing owls have been documented using the area, or if the qualified biologist, the City, and CDFW collectively determine that the mitigation strategy is suitable for both species.	
4.3-8 Have a substantial adverse effect, either directly or through habitat modifications, on roosting bats.	S	*4.3-8* *Prior to the commencement of construction activities associated with any future Tentative Map, a qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees and structures within the proposed impact footprint within the Project vicinity. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. The results of the assessment shall be submitted to the City of Elk Grove Community Development Department.* • *If potential roosting habitat is identified (cavities in trees or potential roosts within structures) within the areas proposed for impact, the biologist shall survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys are recommended to be conducted utilizing*	LS

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		methods that are considered acceptable by bat experts after consultation with CDFW. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof. • *If roosting bats are identified within any of the trees planned for removal, or if presence is assumed, the trees shall be removed outside of pup season, only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree.* • *Additionally, all other tree removal shall be conducted from January through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.* • *If roosting bats are identified within any structures planned for removal, a bat exclusion plan shall be prepared by a qualified bat biologist describing the methods to be used to humanely exclude bats prior to*	

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		disturbance. The plan shall be approved by the City of Elk Grove Community Development Department after consultation with CDFW and shall be implemented prior to the start of construction. • *The requirements for the bat expert and City to consult with CDFW prior to approving survey methods and a bat exclusion plan shall be satisfied either where CDFW responds to requests for consultation within 30 days of the requests or where the bat expert and City have attempted to consult with CDFW but CDFW has failed to respond to the request within 30 days of the placement of the request.*	
4.3-9 Have a substantial adverse effect, either directly or through habitat modifications, on American badger.	S	*4.3-9 The Project applicant shall retain a qualified biologist to conduct a preconstruction survey to determine the presence or absence of badgers prior to initiation of ground-disturbing activities associated with any future Tentative Map. If badgers are not identified, further mitigation is not required. If an active badger den is identified during preconstruction surveys within or immediately adjacent to an area subject to construction, a qualified biologist shall establish a construction-free buffer of up to 300 feet around the badger den. Once the biologist has determined that the badger has vacated the burrow, the burrow can be collapsed or excavated, and ground disturbance can proceed. Should the burrow be determined to be a natal or reproductive den, and because badgers*	LS

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			are known to use multiple burrows in a breeding burrow complex, a biological monitor shall be present on-site during construction activities in the vicinity of the burrows to ensure that the buffer is adequate to avoid direct impact to individuals or natal/reproductive den abandonment. The monitor shall be required to be present until the badger young are determined to be of an independent age and construction activities would not harm individual badgers. A written summary of the survey results shall be submitted to the City of Elk Grove Community Development Department.	
4.3-10 Have a substantial adverse effect on any riparian habitat or other sensitive natural community, or State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	S	*4.3-10(a)*	*Prior to the approval of any improvement plans, the project proponent shall submit a formal Aquatic Resources Delineation for the on- and off-site areas to the U.S. Army Corps of Engineers (USACE) for verification purposes and determination as to whether the Project activities will require a Clean Water Act (CWA) Section 404 permit. The Aquatic Resources Delineation shall be conducted in accordance with the USACE Sacramento District's Minimum Standards for Acceptance of Preliminary Aquatic Resources Delineations and the USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). The Aquatic Resources Delineation shall also document the expected impact on the jurisdictional wetlands and waters that would result from the project. A copy of the USACE's*	LS

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		determination shall be submitted to the City of Elk Grove Community Development Department. *4.3-10(b) If a CWA Section 404 permit is determined to be necessary, prior to the issuance of grading permits, the Project applicant shall apply for and obtain a Section 404 permit from the USACE. Waters that would be lost or disturbed shall be restored, replaced or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE. In the event that a Section 404 permit is required, the Project applicant shall also apply for and obtain a Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB) prior to the issuance of grading permits and adhere to the certification conditions therein. The Project applicant shall submit a Report of Waste Discharge to the Central Valley RWQCB with a request for waste discharge requirements and adhere to the waste discharge requirements.* *4.3-10(c) If the final Project design would result in permanent impacts to aquatic resources that meet the definition of a river or stream under the California Code of Regulations, riparian vegetation or the 100-year floodplain of a river or stream, the Project proponent shall notify CDFW of the proposed alteration pursuant to Fish and Game Code Section 1600, Lake or Streambed Alteration prior to approval of any*	

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		future Tentative Maps. Minimization and avoidance measures shall be proposed as appropriate and may include preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW.	
4.3-11 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.	LS	*None required.*	N/A
4.3-12 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or have a substantial adverse effect on the environment by converting	S	*4.3-12* *Prior to ground-disturbing activities and work within the critical root zone, removal, topping, or relocation of any tree of local importance, a Tree Permit shall be obtained from the City of Elk Grove, Planning Division, and the Project applicant shall comply with all of the conditions of the permit. As part of the approval of a Tree Permit for removal of a tree, the Project applicant shall mitigate for the loss of the*	LS

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oak woodlands or impacting individual trees.		*trees consistent with Article IV (Mitigation for Tree Loss) of EGMC Chapter 19.12. A tree mitigation plan shall be submitted to and approved by the City Arborist. Unless an alternative mitigation is approved by the City Arborist, as provided in EGMC Section 19.12.180 (Alternative mitigation requirements), the tree mitigation plan shall include the following mitigation options to ensure mitigation for the loss of protected trees is provided at a ratio of one new inch diameter at standard height (DSH) of tree for each inch DSH lost (1:1 ratio):* • *<u>On-Site or Off-Site Replacement.</u> The plan shall specify where the tree(s) shall be planted and how the tree(s) shall be monitored and maintained for a minimum of five years. The City may require the establishment of a performance bond or other surety as a way to ensure that the replacement trees survive for the minimum establishment period as provided in EGMC Section 19.12.190. The City shall allow the use of on-site trees planted under a mitigation plan as a way to meet any other on-site landscaping requirement, including parking lot shading, street landscaping, and street trees on residential lots;* • *<u>Payment of an In-Lieu Fee as Adopted by Resolution of the City Council</u>. The Project applicant may pay an in-lieu fee for the loss*	

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		of the tree(s) at a rate established by the City Council. Such monies shall be deposited in the tree preservation fund as described in EGMC Section 19.12.220; or • *Credit for Existing Trees Smaller Than When a Permit Is Required. The Project applicant may be entitled to mitigation credit when species of trees that are listed in EGMC Section 19.12.040 (Trees of local importance) are preserved, but are smaller than the size threshold defined in EGMC Section 19.12.040 (i.e., less than six inches DSH). The City Arborist shall make the determination after reviewing the location of the tree(s), the quality of the environment (both pre- and post-project) in which the tree(s) is located, potential impacts to the tree(s) from proposed development, and other relevant factors that the City Arborist deems relevant to the long-term viability of the tree(s). If approved for credit, retained trees shall receive a credit of one inch DSH per tree for trees between two and five inches DSH. The City may require the establishment of a performance bond or other surety as a way to ensure that the tree(s) survive for the minimum establishment period as provided in EGMC Section 19.12.190.*	
4.3-13 Cumulative loss of habitat for special-status species.	LCC	*None required.*	N/A

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4.4 Cultural and Tribal Cultural Resources			
4.4-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5.	S	*4.4-1* *Prior to construction of any off-site improvements to the Road/Waterman Road and/or Sheldon Road/Bradshaw Road roundabout(s), a cultural resources study shall be conducted to determine if any cultural resource sites are present. The study shall be conducted by a qualified archaeologist that meets the Secretary of the Interior's Standards for Archaeology.* *If cultural resource site indicators are found during the study recommended above and would be impacted by the proposed improvements, the preferred treatment of the resource is protection and preservation. Protection and preservation shall be achieved in one of two ways: direct avoidance (i.e., not developing within the boundaries of the cultural resource site); or by protecting intact archaeological deposits through the placement of sufficient fill over the deposit during and after construction.* *If protection and preservation are not possible, then a subsurface testing program shall be conducted to determine if the cultural resource site is eligible for inclusion on the California Register or the Elk Grove Register. The subsurface testing program shall be overseen by an archaeologist who meets the Secretary of the Interior's Standards and shall be outlined in a Subsurface Testing Program Plan for Cultural Resources. The plan shall include the*	LS

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		following: a research design appropriate for the cultural resource site type; a discussion and rationale of the investigation's field and laboratory methods; and an identification of the planned treatment and disposition of any recovered cultural materials, including the steps that shall be followed in the event of discovery of human remains. The identified steps shall be consistent with Health and Safety Code Section 7050.5. Following the completion of the subsurface testing program, a report shall be prepared that documents the methods of investigation, the types of analyses conducted, and a determination of the cultural resource site's eligibility for inclusion on the California Register of Historic Resources (CRHR). The report shall include completed appropriate Department of Parks and Recreation (DPR) 523 forms for the cultural resource site. *If the testing program finds that a cultural resource site eligible for listing on the CRHR would be impacted, and protection and preservation is not possible, then data recovery of the impacted locations shall be necessary. Data recovery shall be performed by a qualified archaeologist that meets the Secretary of the Interior's Standards using appropriate archaeological techniques. Data recovery shall include processing and analysis of recovered cultural materials using appropriate archaeological methods, as well as the preparation of*	

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			the recovered materials for permanent disposition pursuant to the requirements of the Archaeological Resources Treatment Plan. Monitoring may also be recommended by the archaeologist, but the decision to recommend monitoring as a mitigation measure shall be dependent upon the findings of the testing program. *Proof of compliance with the aforementioned standards shall be submitted to the City of Elk Grove Community Development Department for review and approval.*	
4.4-2 Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries.	S	*4.4-2(a)*	*If potential cultural resources, tribal cultural resources, or archaeological artifacts are discovered during grading or construction activities within the site, work shall halt immediately within 100 feet of the discovery based on the apparent distribution of the resources, the City of Elk Grove Community Development 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. In addition, a Native American Representative from the federally recognized Wilton Rancheria will assess the significance of the find and make recommendations for further evaluation and treatment if necessary. Examples of potential cultural materials include but are not limited to midden soils, artifacts, chipped or worked stone, baked clay, shell, or bone.*	LS

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		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, the applicant, and a representative of Wilton Rancheria shall consult and agree to implement all measures the City deems feasible. Culturally appropriate treatment that preserves or restores the cultural qualities and integrity of a Tribal Cultural Resource may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, construction monitoring of any further activities by a tribal representative, and or returning the objects to a location within the project area where they will not be subject to future impacts. Wilton Rancheria does not consider curation of tribal cultural resources to be appropriate or respectful and requests that materials not be permanently curated, unless specifically requested by the Tribe. Additional 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. *4.4-2(b) Before the start of any earthmoving activities, the Project owner shall retain a qualified scientist (e.g., geologist, biologist, paleontologist) to train all*	

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		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 of Elk Grove Community Development Department 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.	

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		4.4-2(c) *Prior to the start of any ground disturbing activities, a qualified archaeologist meeting the United States Secretary of Interior guidelines for professional archaeologists shall be retained to develop a construction worker awareness brochure. This brochure shall be distributed to all construction personnel and supervisors who will have the potential to encounter cultural resources. Proof of compliance shall be submitted to the City of Elk Grove Community Development Department. The topics to be addressed in the Worker Environmental Awareness Program will include, at a minimum:* • *Types of cultural resources expected in the project area;* • *What to do if a worker encounters a possible resource;* • *What to do if a worker encounters bones or possible bones; and* • *Penalties for removing or intentionally disturbing cultural resources, such as those identified in the Archeological Resources Protection Act.* *4.4-2(d)* *In the event of the accidental discovery or recognition of any human remains, the County Coroner and the Native American Heritage Commission shall be contacted immediately, and the City of Elk Grove Community Development Department shall be notified, and further excavation or disturbance of the*	

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		find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur and the County Coroner shall be notified to determine if an investigation into the cause of death is required. If the coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. A Native American Representative from the federally recognized Wilton Rancheria shall also be notified and make recommendations for further treatment if necessary. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 24 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and	

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		grave goods with appropriate dignity at a location on the property not subject to further disturbances. After review of the find and consultation with the most likely descendant, the authority to proceed may be accompanied by the addition of development requirements which provide for protection and preservation of the site and/or additional measures necessary to address the sensitive and unique nature of the site. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City of Elk Grove Community Development Department. Work on the site cannot commence until after the human remains are removed from the area or, if reburial is determined to be the appropriate course of action, reburied at a location on the property not subject to further disturbance. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City of Elk Grove Community Development Department. All treatment recommendations made by the tribe and other cultural resources specialists shall be documented in the confidential portion of the project record. *4.4-2(e) Implement Mitigation Measure 4.4-1.*	

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4.4-3 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074.	S	*4.4-3(a)* *Implement Mitigation Measures 4.4-2(a) through 4.4-2(e).* *4.4-3(b)* *Prior to approval of any construction plans for the Project (e.g., grading, improvement plans), the City and Project applicant shall coordinate with the Wilton Rancheria to conduct a Tribal Survey of the site, which shall inform future ground-disturbing monitoring. Prior to approval of construction plans, the Project applicant shall enter into (i) an Inadvertent Discovery Treatment Plan, in substantially the form presented by Wilton Rancheria; and (ii) a Tribal Monitoring Agreement between the Project applicant and Wilton Rancheria whereby the applicant retains the services of a paid tribal monitor provided by the Wilton Rancheria to monitor certain Project activities described below, which agreement shall be to the satisfaction of the Wilton Rancheria.* *For earthwork and other ground-disturbing phases of construction, the Project applicant shall provide access to the site for a tribal monitor from Wilton Rancheria as further described herein. On-site monitoring shall be required for all construction phases that involve earthwork or ground-disturbing activities, with the exception of any earthwork or ground-disturbing activities in areas that have been previously disturbed or in areas that are explicitly identified by Wilton Rancheria during the Tribal Survey as excluded from the tribal monitoring*	LS

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		requirement. The Project applicant shall provide the City Community Development Department with notice 10 business days prior to commencing any earthwork or other ground-disturbing activities subject to monitoring hereunder. Following receipt of such notice, the City Community Development Department shall contact the Wilton Rancheria tribal representative a minimum of seven business days before the Project applicant begins earthwork or other ground-disturbing activities to schedule the tribal monitor to be present on-site during such activities. If a response is not received 48 hours prior to commencement of ground-disturbing activities, construction activities shall proceed without the tribal monitor on-site. Should the tribal monitor not respond to the City's request for the presence of a monitor, or should the tribal monitor elect not to participate, the Project applicant's Construction Manager shall monitor for potential discoveries. The on-site monitoring shall end when the site earthwork and ground-disturbing activities are completed or when the tribal representatives and monitor have indicated that the site has a low potential for affecting tribal cultural resources.	
4.4-4 Cause a cumulative loss of cultural and tribal cultural resources.	LS	*None required.*	N/A
4.5 Geology and Soils			
4.5-1 Directly or indirectly cause potential substantial adverse	LS	*None required.*	N/A

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	effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, and seismic-related ground failure.			
4.5-2	**Result in substantial soil erosion or the loss of topsoil.**	LS	*None required.*	N/A
4.5-3	**Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, or be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, creating substantial risks to life or property.**	S	*4.5-3* *In conjunction with the submittal of any improvement plans associated with future Tentative Maps or the off-site improvements, the Project applicant shall submit a design-level geotechnical engineering report produced by a California Registered Civil Engineer or Geotechnical Engineer to the City of Elk Grove Community Development Department for review and approval. The report shall include the results of a site-specific subsurface exploration, laboratory testing, and engineering analysis. The design-level report shall be performed after site configuration/layout has been established. The investigation shall include several exploratory borings and test pits throughout the site to evaluate the potential presence of undocumented fill, tilled/disturbed soil thickness, liquefaction potential, and excavation characteristics. The design-level geotechnical engineering report shall evaluate soil expansion potential and include the results of a laboratory plasticity index and expansion index testing. The report shall include the geotechnical recommendations specified in the Geotechnical*	LS

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		Engineering Report prepared for the site by WKA, unless it is determined in the design-level report that one or more recommendations need to be revised. The report shall also address the off-site improvement areas. *The design-level geotechnical engineering report shall address, at a minimum, the following:* • *Compaction specifications and subgrade preparation for on-site soils;* • *Structural foundations;* • *Grading practices;* • *Liquefaction potential; and* • *Expansive/unstable soils, including fill.* *Prior to approval of any improvement plans and issuance of building permits, the foundation and improvement plans shall incorporate design-level recommendations. Road improvements shall meet the standards provided in the City's Improvement Standards, including related to soil and base compaction. All foundation and improvement plans shall be reviewed and approved by the City of Elk Grove Community Development Department.*	
4.5-4 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	S	*4.5-4* *Prior to the start of on- or off-site ground-disturbing activities associated with any future Tentative Maps, the Project applicant shall inform all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the*	LS

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		appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. Should paleontological resources be discovered during ground-disturbing activities, work shall be immediately halted in the area within 50 feet of the find. Construction may continue in areas outside of the buffer zone. The applicant shall notify the City of Elk Grove Community Development Department and retain a qualified paleontologist to inspect the discovery. If not deemed significant, further mitigation is not necessary. If deemed significant under criteria established by the Society for Vertebrate Paleontology with respect to authenticity, completeness, preservation, and identification, the resource(s) shall then be salvaged by the qualified paleontologist and deposited in an accredited and permanent scientific institution (e.g., University of California Museum of Paleontology [UCMP] or Sierra College), where the discovery would be properly curated and preserved for the benefit of current and future generations. A report detailing the findings of the qualified paleontologist and ultimate deposition of the resource(s) shall be submitted to the City before construction activities can resume at the site where the paleontological resource(s) was discovered. The language of this mitigation measure shall be included on any future grading plans, utility plans, and improvement plans approved by the City of Elk Grove	

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		Community Development Department for the Project where excavation work would be required.	
4.5-5 Cumulative increase in the potential for geological related impacts and hazards.	LS	*None required.*	N/A
4.6 Hazards and Hazardous Materials			
4.6-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LS	*None required.*	N/A
4.6-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.	S	*4.6-2(a)* *For any Tentative Map where disturbance of the area containing the on-site soil stockpiles would not occur, the stockpiles may be retained in place and mitigation is not necessary. For any Tentative Map involving disturbance in the area containing the on-site soil stockpiles, or for any future development that contemplates removal or relocation of the stockpiles, samples of the soil stockpiles shall be obtained for analysis of contaminants of concern and comparison with applicable regulatory screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). If soil contaminants are not found, further action is not required. However, where the soil contaminant concentrations exceed the applicable regulatory screening levels, the impacted soil stockpiles shall be excavated prior to any grading activities in the vicinity and properly disposed of off-site by a licensed professional at a permitted landfill*	LS

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		facility to the satisfaction of the City of Elk Grove Community Development Department and the Sacramento County Environmental Management Department (EMD). *4.6-2(b) If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered on-site during construction activities associated with any future Tentative Map, the impacted area(s) shall be isolated from surrounding, non-impacted areas. A State-licensed engineering geologist shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern in accordance with applicable U.S. Environmental Protection Agency (USEPA) Methods and comparison with applicable regulatory screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). The soil sampling analysis shall be submitted for review and approval to the City of Elk Grove Community Development Department. Where the soil contaminant concentrations exceed the applicable regulatory screening levels, the impacted soil shall be excavated and disposed of off-site at a licensed landfill facility to the satisfaction of the Sacramento County Environmental Management Department.* *4.6-2(c) The Project applicant shall hire a licensed well contractor to obtain a well abandonment permit from*	

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		the Sacramento County EMD for all on-site wells, and properly abandon the on-site wells prior to approval of any future Tentative Maps, pursuant to Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III), for review and approval by the Sacramento County EMD. In addition, prior to Improvement Plan approval, the Project applicant shall ensure that any on-site septic systems are abandoned in compliance with applicable Sacramento County EMD standards. Verification of abandonment and/or water quality testing shall be ensured by the City of Elk Grove Community Development Department. *4.6-2(d) Prior to approval of any future Tentative Maps, a surficial soil sample laboratory analysis shall be conducted on the areas of the site proposed for development as part of a Phase II ESA. Once the soils are collected, the soils shall be tested for organochlorine pesticides (OCPs), lead, and asbestos. If soil contaminates are not found, further action is not required; however, if OCPs, lead, or asbestos is found to be higher than the allowable thresholds, the Phase II ESA shall include the appropriate mitigation including, but not limited to, soil remediation to an acceptable total threshold limit concentration (TTLC) level per applicable State and federal regulations by excavation of the contaminated soil, and subsequent transportation and disposal off-site at an appropriate Class I or*	

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		Class II facility permitted by DTSC; or by properly capping the contaminated soil, in compliance with DTSC regulations (e.g., placing soils underneath project roadways, etc.). All recommended mitigation measures shall be implemented by the Project applicant, subject to review and approval by the City of Elk Grove Community Development Department.	
		4.6-2(e) Prior to issuance of a demolition permit by the City for any on-site structures, the Project applicant shall provide a site assessment that determines whether any structures to be demolished contain lead-based paint (LBP) or asbestos. If structures do not contain LBP or asbestos, further mitigation is not required; however, if LBP is found, all loose and peeling paint shall be removed and disposed of by a licensed and certified lead paint removal contractor, in accordance with California Air Resources Board recommendations and OSHA requirements. If asbestos is found, all construction activities shall comply with all requirements and regulations promulgated through the Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 902. The demolition contractor shall be informed that all paint on the buildings shall be considered as containing lead and/or asbestos. The contractor shall follow all work practice standards set forth in the Asbestos National Emission Standards for Hazardous Air Pollutants (Asbestos NESHAP, 40 CFR, Part 61, Subpart M) regulations, as well as	

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		Section V, Chapter 3 of the OSHA Technical Manual. Work practice standards generally include appropriate precautions to protect construction workers and the surrounding community, and appropriate disposal methods for construction waste containing lead paint or asbestos in accordance with federal, State, and local regulations subject to approval by the City Engineer. *4.6-2(f)* *Prior to approval of the first Tentative Map associated with the Project, a Phase I ESA shall be prepared for the off-site improvement areas and submitted to the City for review and approval. The Phase I ESA shall be prepared by a licensed contractor with the purpose of observing and assessing the conditions encountered at the proposed roadway and utility infrastructure improvement areas and providing conclusions and recommendations relative to any hazardous conditions or materials identified on-site. All recommendations set forth in the Phase I ESA shall be required as a condition of approval on the Tentative Map and appropriately incorporated into the off-site improvement areas of the Project, subject to review and approval by the City of Elk Grove Community Development Department. If the Phase I ESA identifies a Recognized Environmental Condition (REC) requiring a Phase II ESA, a Phase II ESA shall be prepared and submitted to the City of Elk Grove Community Development Department for review and approval to confirm or rule out the*	

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		presence of potential hazardous substances associated with the identified REC. If the Phase II ESA does not identify the presence of hazardous substances, further mitigation is not necessary. If the Phase II ESA does identify the presence of hazardous substances, the Phase II ESA shall include the appropriate means of remediation sufficient to reduce associated risks to an acceptable level pursuant to applicable City, State, and federal regulations, as determined by a licensed contractor. Remediation could include, but would not be limited to, excavation of contaminated soil and subsequent transportation and disposal off-site or properly capping contaminated soil. All recommendations set forth in the Phase II ESA shall be required as a condition of approval on the Tentative Map and implemented by the Project applicant, subject to review and approval by the City of Elk Grove Community Development Department.	
4.6-3 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LS	*None required.*	N/A
4.6-4 Cumulative exposure to potential hazards, including wildfire, and increases in the transport, storage, and use of hazardous materials	LS	*None required.*	N/A

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4.7 Hydrology and Water Quality			
4.7-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction.	S	*4.7-1* *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the SWRCB. The developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. Construction (temporary) BMPs for the Project may include, but are not limited to: fiber rolls, straw bale barrier, straw wattles, storm drain inlet protection, velocity dissipation devices, silt fences, wind erosion control, stabilized construction entrance, hydroseeding, revegetation techniques, and dust control measures. The SWPPP shall be submitted to the City Engineer for review and approval and shall remain on the site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*	LS
4.7-2 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface	S	*4.7-2(a)* *Prior to approval of final Project improvement plans, the Project applicant shall submit a detailed Best Management Practice (BMP) and water quality maintenance plan to the City Community*	LS

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	or ground water quality during operations.		*Development Department for review and approval. The BMP and water quality maintenance plan shall meet the standards of the City's NPDES Permit (No. CAS0085324), the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment, and the Stormwater Quality Design Manual for the Sacramento region. Site design measures, source control measures, hydromodification management, and Low Impact Development (LID) standards, as necessary, shall be incorporated into the design and shown on the improvement plans.* *4.7-2(b) Prior to approval of final Project improvement plans, the Project applicant shall submit a maintenance covenant to the City Community Development Department for review and approval. The maintenance covenant shall be recorded against the title to the site in the Office of the Sacramento County Recorder and shall bind any and all subsequent owners of the property to ensure the long-term maintenance of stormwater quality measures.*	
4.7-3	**Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct**	LS	*None required.*	N/A

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	Impact	Level of Significance Prior to Mitigation		Mitigation Measures	Level of Significance After Mitigation
	implementation of a water quality control plan or sustainable groundwater management plan.				
4.7-4	**Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.**	S	*4.7-4*	*In conjunction with submittal of any development applications for future on-site development or any off-site roadway improvements related to the Project, such as roundabout widening, the Project applicant shall submit, for review and approval, a design-level drainage report to the City of Elk Grove Community Development Department. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: written text addressing existing conditions; watershed maps; changes in flows and patterns affected by the proposed off- and on-site improvements; and all appropriate calculations, including sizing and location. The report shall include an evaluation of the drainage system design in accordance with all applicable design parameters and requirements set forth by the City of Elk Grove, including, but not limited to, the inclusion of appropriate stormwater quality and LID features; conveyance and attenuation infrastructure sufficient to ensure post-project peak flows are equal to or less than pre-project peak flows; and the ability to accommodate post-development flows (inclusive of off-site flows) in the 100-year, 24-hour storm event, unless a different design storm is specified by the City. Design-level recommendations provided in the drainage report shall be included in the improvement*	LS

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		plans prior to their approval by the City of Elk Grove Community Development Department.	
4.7-5 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation.	S	*4.7-5(a)* *Prior to issuance of any grading permits associated with the Project, the Project contractor shall submit improvement plans to the City of Elk Grove Community Development Department and City Engineer for review and approval that demonstrate that all residential development and development associated with the private community recreation center/clubhouse would occur outside of the FEMA mapped SFHA. Benchmark elevation and location shall be shown on the improvement plans to the satisfaction of the City Engineer.* *4.7-5(b)* *Prior to approval of any improvement plans for the pedestrian bridge across Laguna Creek, off-site improvements to the Sheldon Road/Bradshaw Road intersection, and on-site storm drain system improvements, the improvement plans shall demonstrate, to the satisfaction of the City Engineer, that the improvements would be designed to avoid the FEMA mapped SFHA. Benchmark elevation and location shall be shown on the improvement plans to the satisfaction of the City Engineer.* *If placement of the vertical supports or other components of the pedestrian bridge or any components of the storm drain system or off-site Sheldon Road/Bradshaw Road intersection improvements would occur within the SFHA, the improvement plans shall demonstrate that the*	LS

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		improvements would be designed in compliance with Section 16.50.060 of the EGMC, subject to review and approval by the City of Elk Grove Community Development Department and City Engineer. In addition, the applicant shall provide calculations certified by a California registered civil engineer or licensed land surveyor to the City Engineer demonstrating that the improvements will not result in any increase in the BFE. *If any of the improvements would result in a modification to the FEMA mapped SFHA, the applicant shall obtain from FEMA, a Conditional Letter of Map Revision (CLOMR). A copy of the letter shall be provided to the Elk Grove Community Development Department and City Engineer. A Letter of Map Revision (LOMR) from FEMA shall be provided to the City Engineer prior to acceptance of grading permits as complete.*	
4.7-6 Cumulative impacts related to the violation of water quality standards or waste discharge requirements, groundwater quality, management, and recharge, and impacts resulting from the alteration of existing drainage patterns.	LS	*None required.*	N/A
4.8 Land Use and Planning/Population and Housing			
4.8-1 Physically divide an established community.	LS	*None required.*	N/A

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4.8-2 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.	LS	*None required.*	N/A
4.8-3 Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).	S	*None feasible.*	SU
4.8-4 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	LS	*None required.*	N/A
4.8-5 Cumulative unplanned population growth.	CC	*None feasible.*	CC/SU
4.9 Noise			
4.9-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise	S	*4.9-1(a) Prior to the approval of grading and/or building permits, or any permit that results in the use of construction equipment, the following requirements shall be noted on Improvement Plans, subject to review and approval of the City of Elk Grove Community Development Department:*	SU

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ordinance, or applicable standards of other agencies.		• *Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the hours of 7:00 AM and 7:00 PM, daily, when located in close proximity to residential uses;* • *All construction equipment powered by internal-combustion engines shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with the manufacturer's recommendations. Equipment engine shrouds shall be closed during equipment operation;* • *When not in use, motorized construction equipment shall not be left idling for more than five minutes;* • *All stationary noise-generating construction equipment, such as generators or air compressors, are to be located as far as practical from existing residences. In addition, the Project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest to the site; and* • *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors*	

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		nearest to the site during all Project construction. *4.9-1(b) Prior to the approval of grading permits, or permits that would result in the use of construction equipment in an off-site construction area, the Project shall incorporate eight-foot-tall temporary sound barriers along the boundary of the off-site construction area adjacent to the existing sensitive receptors.* *The sound barrier fencing shall consist of 0.5-inch plywood or minimum Sound Transmission Class (STC) 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier shall be free from gaps, openings, or penetrations to ensure maximum performance. The requirements of the temporary sound barriers shall be noted on Improvement Plans, subject to review and approval of the City of Elk Grove Community Development Department.*	
4.9-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	LS	*None required.*	N/A

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4.9-3 Generation of excessive groundborne vibration or groundborne noise levels.	LS	*None required.*	N/A
4.9-4 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove.	LS	*None required.*	N/A
4.10 Public Services and Utilities			
4.10-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.	LS	*None required.*	N/A
4.10-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of	LS	*None required.*	N/A

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which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for law enforcement services.			
4.10-3 Result in substantial adverse physical impacts associated with the provision of new or physically altered school services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or performance objectives.	LS	*None required.*	N/A
4.10-4 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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	LS	*None required.*	N/A

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	or other performance objectives for parks; or result in an increase in 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, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.			
4.10-5	**Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or performance objectives for maintenance of other government services.**	LS	*None required.*	N/A

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4.10-6 Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	LS	*None required.*	N/A
4.10-7 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LS	*None required.*	N/A
4.10-8 Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	LS	*None required.*	N/A
4.10-9 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or	LS	*None required.*	N/A

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otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste.			
4.10-10 Cumulative impacts to public services.	LS	*None required.*	N/A
4.10-11 Increase in demand for utilities and service systems associated with the Project, in combination with future buildout in the area.	LCC	*None required.*	N/A
4.11 Transportation			
4.11-1 Conflict with a program, plan, ordinance, or policy, except LOS, addressing the circulation system during construction activities.	S	*4.11-1 The Improvement Plans shall include a striping and signing plan and shall include all on- and off-site traffic control devices. Prior to the commencement of construction, a construction signing and traffic control plan shall be provided to the City of Elk Grove Community Development Department for review and approval. The construction signing and traffic control plan shall include (but not be limited to) items such as:* • *Estimate of the number and size of trucks per day entering and leaving the site;* • *Identification of arrival/departure times that would minimize traffic impacts;* • *Approved truck circulation patterns;*	LS

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		• *Locations of staging areas;* • *Locations of employee parking and methods to encourage carpooling and use of alternative transportation;* • *Methods for partial/complete street closures (e.g., timing, signage, location and duration restrictions);* • *Criteria for use of flaggers and other traffic controls;* • *Preservation of safe and convenient passage for bicyclists and pedestrians through/around construction areas;* • *Monitoring for roadbed damage and timing for completing repairs;* • *Limitations on construction activity during peak/holiday weekends and special events;* • *Preservation of emergency vehicle access;* • *Removing traffic obstructions during emergency evacuation events; and* • *Providing a point of contact for City residents and guests to obtain construction information, have questions answered, and convey complaints.* *The construction signing and traffic control plan shall be developed such that the following minimum set of performance standards is achieved throughout Project construction. It is anticipated that additional*	

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		performance standards would be developed once details of Project construction are better known. • *All construction employees shall park in designated lots owned by the Project applicant or on private lots otherwise arranged for by the Project applicant.* • *Roadways shall be maintained clear of debris (e.g., rocks) that could otherwise impede travel and impact public safety.*	
4.11-2 Conflict with a program, plan, ordinance, or policy, except LOS, addressing roadway bicycle and pedestrian facilities during operations.	S	*4.11-2* *As part of approval of subsequent development plans, the City shall condition the future Tentative Maps to include the following pedestrian and bicycle facility infrastructure:* • *The Project shall construct Class II bicycle facilities along the Project frontage on Sheldon Road between Waterman Road and Bradshaw Road.* • *The Project shall construct a Class I multi-use path along the Project frontage on Sheldon Road between Waterman Road and Bradshaw Road.* • *The Project shall contribute to the planned development of the Class I multi-use path along Waterman Road between Bond Road and Calvine Road and along Sheldon Road between Elk Grove Florin and Waterman Road.*	LS

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			Completing gaps in the bicycle system could be addressed through the City's Active Transportation impact fee program or, alternatively, through a standalone in-lieu fee analysis to determine the Project's responsibility for funding system improvements in the surrounding area.	
4.11-3 Conflict with a program, plan, ordinance, or policy, except LOS, addressing transit facilities and services during operations.	S	*4.11-3(a)* *4.11-3(b)*	*Implement Mitigation Measure 4.11-4.* *Any subsequent Tentative Subdivision Map shall be conditioned to construct one or more bus stops with shelters within the Project for access to transit services. Such facilities shall be constructed as part of the corresponding civil improvement plans.* *The Project applicant shall pay the City's Capital Facilities Fee for Transit, which shall fund new transit shelters, a portion of the cost for extension of Light Rail/Bus Rapid Transit to Elk Grove, and other transit improvements in the community and at the site. The fee shall be paid, consistent with the provisions of the adopted Nexus Study, in conjunction with building permit issuance or final occupancy, consistent with State law. Any credits or reimbursement eligible to the Project as a result of construction of these facilities shall be provided consistent with the Nexus Study and applicable City policies.*	LS
4.11-4 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	S	*4.11-4*	*Prior to the recordation of the first Final Map, the property owner(s) shall: (1) approve (a) the formation of a new or annexation into an existing community facilities district (CFD) and (b) an annual CFD special*	SU

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		tax; or (2) deposit a sum money, as determined by the City, to fund the Project's fair share portion of the costs of providing pedestrian and bicycle facility improvements, transit services and infrastructure, and community based travel planning (CBTP) and assistance. The funds may go towards education services, improvement or extension of transit services or additional on-demand transit, or physical improvement and maintenance for pedestrian and bicycle infrastructure and programs. The CFD funds may be used to fund and implement necessary improvements to transit stop amenities (i.e., shelters) near the Project to ensure transit stops are adequate to accommodate new transit riders generated by the Project. Proof of compliance shall be submitted to the City of Elk Grove Community Development Department for review and approval. *Any costs for the formation of the new or annexation into an existing CFD, and approval of such annual CFD special taxes, or administration of the sum of money deposited to fund the City's costs of providing pedestrian and bicycle facility improvements, transit services, or CBTP, shall be paid from the annual CFD special taxes or the sum of money deposited with the City. If the property owner(s) fails to approve an annual CFD special tax or deposit a sum of money as provided for herein for such purposes for the City, no building permits shall be issued and no Final Map shall be recorded.*	

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.11-5 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access.	LS	*None required.*	N/A

N/A = *Not Applicable*; LS = *Less Than Significant*; LCC = *Less Than Cumulatively Considerable*; S = *Significant*; CC = *Cumulatively Considerable*; SU = *Significant and Unavoidable*

3. Project Description

3. PROJECT DESCRIPTION

3.1 INTRODUCTION

The Project Description chapter of the EIR provides a comprehensive description of the proposed Summer Villas Special Planning Area Project (Project). A detailed description of the project location and setting, project objectives, project components, and required public approvals is presented below.

3.2 PROJECT LOCATION

The City of Elk Grove is located within Sacramento County and is generally bounded by Interstate 5 (I-5) to the west, Calvine Road and the Sacramento County to the north, Grant Line Road to the east, and Kammerer Road to the south. State Route (SR) 99 runs north–south through the City center, and provides regional access to the City.

The Project site (site) is located at 9350 Sheldon Road, southeast of the intersection of Sheldon Road and Waterman Road, in the northeastern portion of the City (see Figure 3-1). The approximately 115.9-acre site is identified by Assessor's Parcel Number (APN) 127-0010-077.

3.3 PROJECT SETTING AND SURROUNDING LAND USES

Section 15125 of the CEQA Guidelines requires an EIR to include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of Preparation (NOP) is published, from a local and regional perspective. Knowledge of the existing environmental setting is critical to the assessment of environmental impacts. Pursuant to CEQA Guidelines Section 15125, the description of the environmental setting shall not be longer than necessary to understand the potential significant effects of the project.

The existing setting of the site and the surrounding land uses in the project vicinity are discussed below. Please note that detailed discussions of the existing setting in compliance with CEQA Guidelines Section 15125, specific to each environmental resource area, are included in each corresponding technical chapter of this EIR.

The site is currently developed with a single-unit residence, which is currently occupied, and accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries centrally run from the northern and eastern boundaries of the site to the southern boundary of the site.

The site is located within the City's Rural Area Community Plan. Both the Rural Area Community Plan and the City of Elk Grove General Plan designate the site as Rural Residential (RR). The site is zoned Agricultural Residential-Two Acre Minimum (AR-2).

Figure 3-1
Regional Project Location

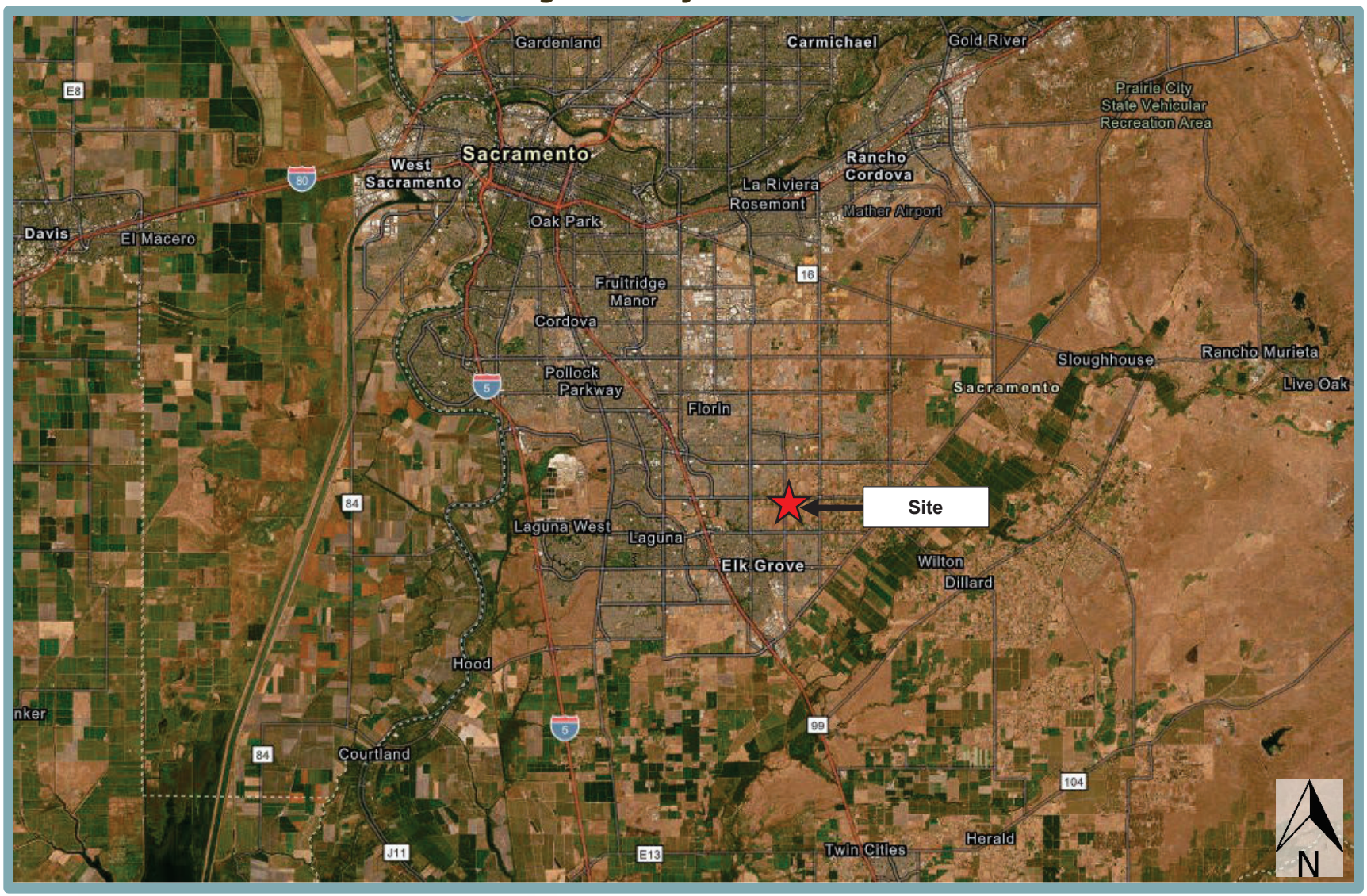


*Figure not OCR compatible.

Surrounding existing uses include rural residences and rural estate residences (zoned Agricultural Residential) the north, across Sheldon Road; undeveloped land and rural residences (zoned Agricultural Residential) to the east; rural residences and a high school/middle school complex (zoned Agricultural Residential/Public Services) to the southeast; rural residences (zoned Agricultural Residential/Special Planning Area) to the west, across Waterman Road; and mostly undeveloped land with a non-profit horse rescue operation (zoned Agricultural Residential) to the south (see Figure 3-2). In addition, the Elliot Springs Special Planning Area (SPA) Subdivision is currently under construction to the southwest.

3.4 PROJECT OBJECTIVES

The following project objectives have been developed by the Project Applicant:

1. To facilitate the development of a 115.9-acre site in the northeastern portion of the City of Elk Grove by removing the property from its Rural Area designation and amending the site's land use designations and zoning to allow for the development of an active adult and senior living community and the preservation of open space.
2. To provide for the development of a 499-unit age restricted (55+) residential neighborhood, as well as a private clubhouse and recreational center for residents, on a 115.9-acre site in the northeastern part of the City of Elk Grove.
3. To increase the diversity of housing types available in Elk Grove and provide opportunities for senior rural residents to downsize from their current large-lot homes to lower-maintenance homes while staying in the Sheldon area.
4. To maximize land utilization on the 115.9-acre site by clustering residential units on approximately 55 percent of the site while preserving the remainder of the site in open space and recreation.
5. To preserve open space associated with the Laguna Creek corridor and preclude development in areas constrained by existing overhead utility easements and flooding risks.
6. To preserve approximately 45 percent (39.3 acres) of the 115.9-acre site consisting of: 1) a western 19.4-acre open space area along Waterman Road that contains existing overhead power-line easements and 2) a 19.9-acre open space area that encompasses the Laguna Creek corridor, the 100-year floodplain, and setbacks from the giant garter snake habitat surrounding the creek.
7. To develop an on-site bicycle and pedestrian trail network connecting to on-site private roads and to the regional trails network in the vicinity of the site, including a bridge crossing of Laguna Creek to allow for bicycle, pedestrian, and golf cart access between the western and eastern portions of the site.
8. To be compatible with surrounding land uses through the combination of Low Density Residential (LDR) and Open Space (P/OS) designations on the 115.9-acre site, preserving setbacks and respecting compatibility in structural height.

3.5 PROJECT COMPONENTS

The Project would require approval of a General Plan/Rural Area Community Plan Amendment and a Rezone to allow for the creation of the 115.9-acre Summer Villas SPA. The Summer Villas SPA contains three distinct sub-zones: 1) Active Adult Neighborhood (71.3 acres), 2) Laguna Creek Open Space (20.3 acres), and 3) Waterman Recreational Open Space (19.4 acres). It should be noted that the remaining 4.9 acres of the site are dedicated to the Waterman Road and Sheldon Road right-of-way (ROW).

Figure 3-2
Site Boundaries

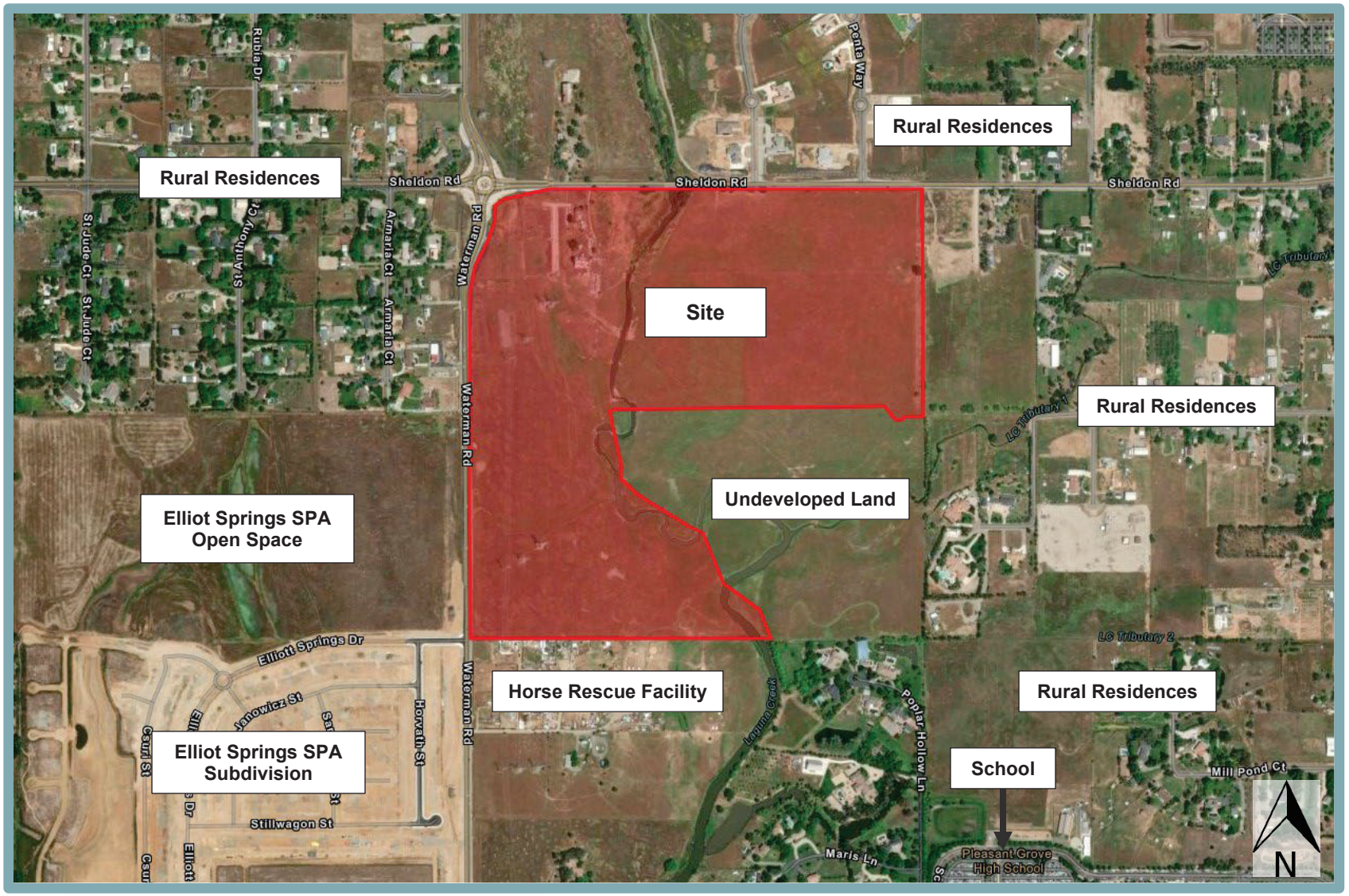


*Figure not OCR compatible.

The SPA does not entitle any specific development proposals. Rather, the SPA adopts site-specific zoning, development standards, and criteria for future development proposals within the site.

While development is not proposed at this time, CEQA requires that the project description for an environmental document include later phases or activities of a project that will foreseeably result from project approval (Section 15126). In *Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.* (1988) 47 C3d 376, the court determined that CEQA review must include analysis of the environmental effects of future actions if 1) it is a reasonably foreseeable consequence of the initial project, and 2) the future action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects.

Given the sub-zones included in the SPA, a reasonable assumption can be made that on-site development of an active adult housing community would occur if the SPA is approved by the Approval Authorities. As such, this EIR will evaluate the impacts associated with approval of the General Plan/Rural Area Community Plan Amendment, Rezone, Elk Grove Municipal Code (EGMC) Text Amendment, and Summer Villas SPA, as well as subsequent potential development of the 115.9 site with a maximum of 499 age-restricted (55+) single-unit residences, as well as various associated improvements, such as a private community recreation center/clubhouse, private park space, trails, private and public open space areas, landscaping, and a number of on- and off-site roadway and utility improvements. The existing single-unit residence and accessory structures in the northwest corner of the site were assumed to be demolished as part of future development of the site.

The Project components, including the required approvals, are described in further detail below.

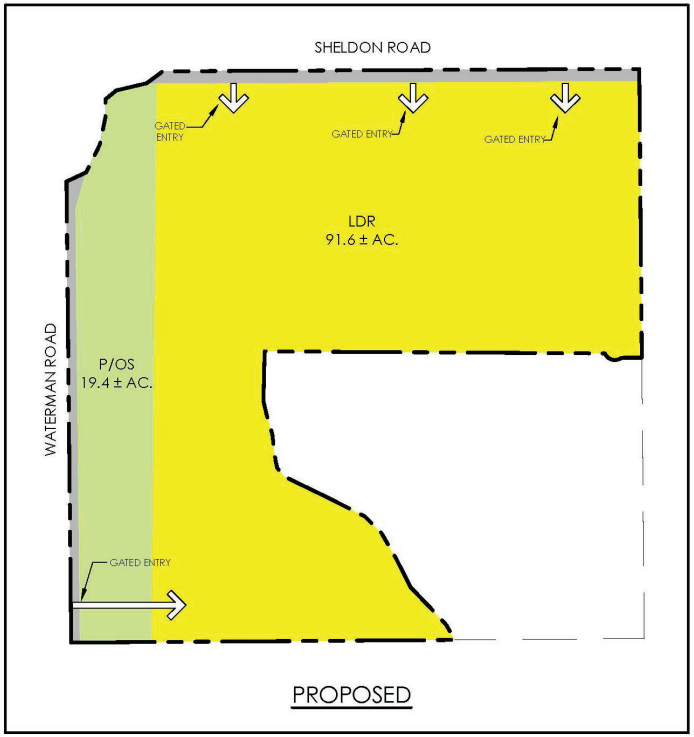
General Plan/Rural Area Community Plan Amendment

The Project would require a General Plan/Rural Area Community Plan Amendment to remove the site from the Rural Area Community Plan and change the General Plan land use designation of the site from Rural Residential (RR) to Low Density Residential (LDR) and Parks and Open Space (P/OS) (see Figure 3-3). The LDR land use designation provides for single detached residential units on lots typically ranging from 6,000 to 10,000 square feet (sf). The allowable residential density for the LDR land use designation ranges from a minimum of 4.1 to a maximum of 7.0 dwelling units per acre (du/ac). It should be noted that in order to preserve the natural features and open space resources existing within the SPA boundaries, the Project may cluster residences beyond the 7.0 du/ac density maximum consistent with General Plan Policy NR-1-9 and General Plan Goal NR-1, which allow such clustering to protect wetlands, stream corridors, scenic areas, or other natural features as open space. Although clustered development could potentially exceed the 7.0 du/ac maximum within the East and West neighborhoods, the overall project density would not exceed the maximum allowable density of the LDR land use designation, as density would be determined for the entire SPA, rather than on a lot-by-lot basis. Within the SPA, a developer would be able to exercise greater flexibility in designing and placing structures, as long as the total density requirement for the SPA is not exceeded. Accordingly, the total number of units would not be allowed to exceed 499 units.

The Parks and Open Space (P/OS) land use designation provides for public and private parks, trails, paseos, and similar features that provide off-street connectivity, and similar compatible uses. The P/OS land use designation also allows for commercial recreation facilities principally oriented toward outdoor use.

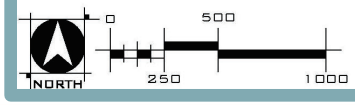
Figure 3-3
Existing and Proposed General Plan Land Use Designations





SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING ACRES	PROPOSED ACRES	ACREAGE DIFF.	EXISTING UNIT RANGE	PROPOSED UNIT RANGE
RR	RURAL RESIDENTIAL (0.1-0.5 DU/AC.)	115.9	0.0	-115.9	12-58 DU	0 DU
LDR	LOW DENSITY RESIDENTIAL (4.1-7.0 DU/AC.)	0.0	91.6	91.6	0 DU	375-641 DU
OS	OPEN SPACE	0.0	19.4	19.4	-	-
RIGHT OF WAY	WATERMAN ROAD & SHELDON ROAD	0.0	4.9	4.9	-	-
TOTAL		**115.9**	**115.9**	**0.0**	**12-58 DU**	**375-641 DU**



Rezone

The Project would require a Rezone to change the zoning designation of the site from Agricultural Residential 2 acre minimum (AR-2) to SPA, as defined by Section 23.16.100 of the EGMC (see Figure 3-4). The approved SPA document would serve as site-specific zoning for the area within the boundaries of the SPA, which includes site-specific development standards and criteria for future development. The requested Rezone would include a Text Amendment to Section 23.40.020 of the EGMC to add the new SPA to a list of adopted SPAs within the City.

Summer Villas SPA

In accordance with Section 23.16.100 of the EGMC, SPAs regulate properties in areas throughout the City that have unique environmental, historic, architectural, or other features which require special conditions not provided through the application of standard zone regulations.

Pursuant to EGMC Section 23.16.100 (D), the SPA is required to be established by ordinance with mandatory contents which include the following*:* a list of permitted, conditionally permitted, and prohibited uses; performance and development requirements relating to yards, lot area, intensity of development on each lot, parking, landscaping, and signs; other design standards appropriate for the specific site and development; and reasons for establishment of the SPA land use zone on the particular property. The Summer Villas SPA ordinance would require review and approval by the Elk Grove City Council.

If Approved by the Approval Authority, the Summer Villas SPA ordinance, the SPA, the City of Elk Grove General Plan, EGMC (Title 23), and Citywide Design Guidelines would regulate all future development applications, subdivision maps, and site plans proposed within the geographic boundaries of the site. The SPA functions as a special purpose zoning district under Chapter 23.40 of Title 23, Zoning, of the EGMC. All existing City land use policies, design and development standards, and roadway improvement standards would remain in effect, except as provided within the SPA. In instances where the SPA is different or otherwise contrary to the other development standards or codes of the City of Elk Grove, the SPA would prevail and be the controlling document for future development of the site in accordance with Section 23.16.100(H) of the EGMC. For example, the final SPA document would include site-specific land-use, lot size, setback, street section, landscaping, and fencing standards. In addition, the following administrative procedures would apply to the SPA:

- **Permit Requirements and Allowed Uses** – Development within the SPA would be required to comply with all land use entitlement and permit requirements and procedures as provided in Chapter 23.16 of the EGMC.
- **Approving Authority** – The approving authority for land use entitlements and permits required in this SPA would be as provided in Chapter 23.14 of the EGMC.
- **Appeals** – The process for filing and processing an appeal for a land use entitlement or permit would be as provided in Chapter 23.14 of the EGMC.
- **Interpretation** – The interpretation of the provisions of this SPA would be governed by the procedures in Chapter 23.12 of the EGMC.

As discussed above, the Summer Villas SPA contains three distinct sub-zones: 1) Active Adult Neighborhood, 2) Laguna Creek Open Space, and 3) Waterman Recreational Open Space (see Figure 3-5).

Figure 3-4
Existing and Proposed Zoning Designations

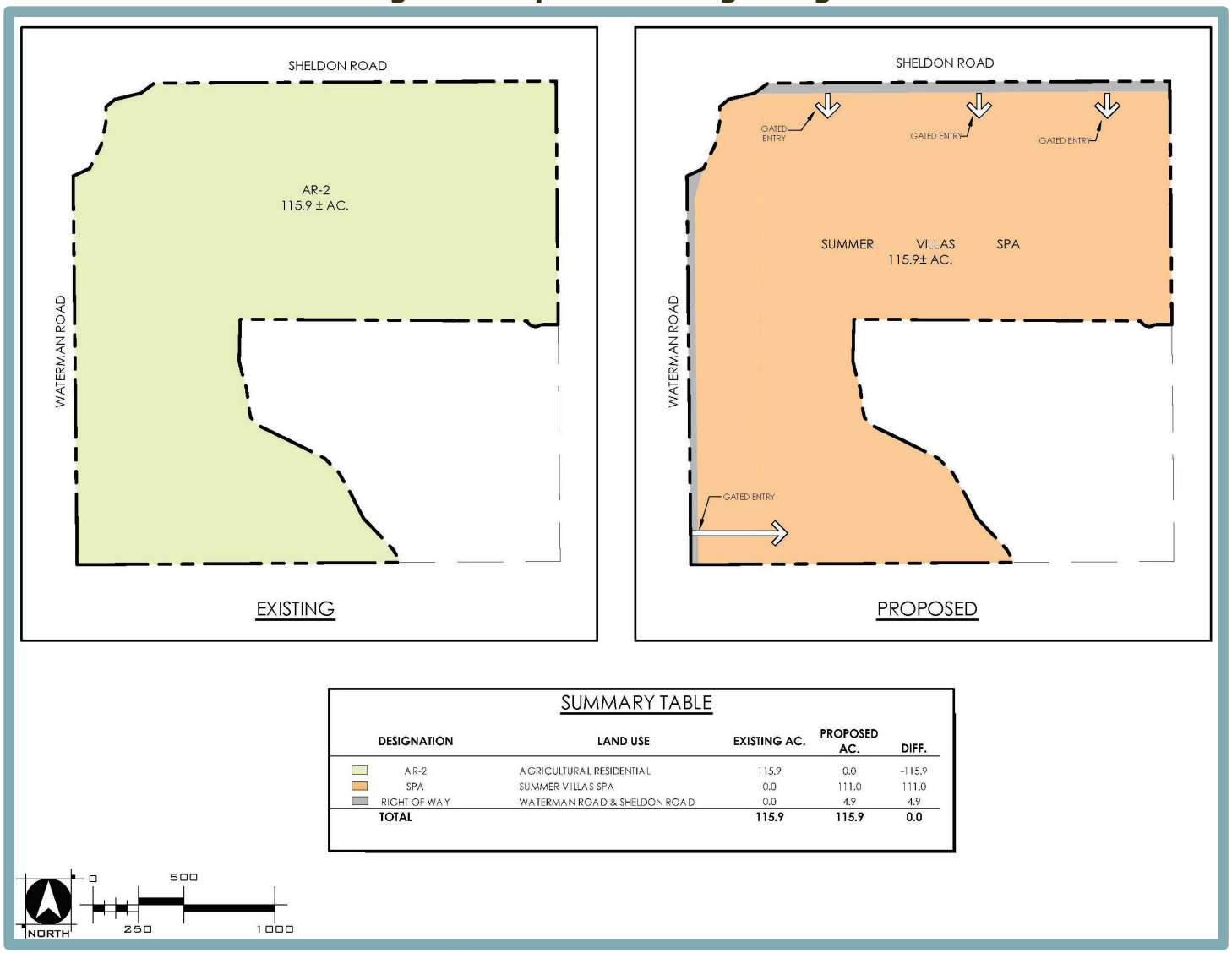
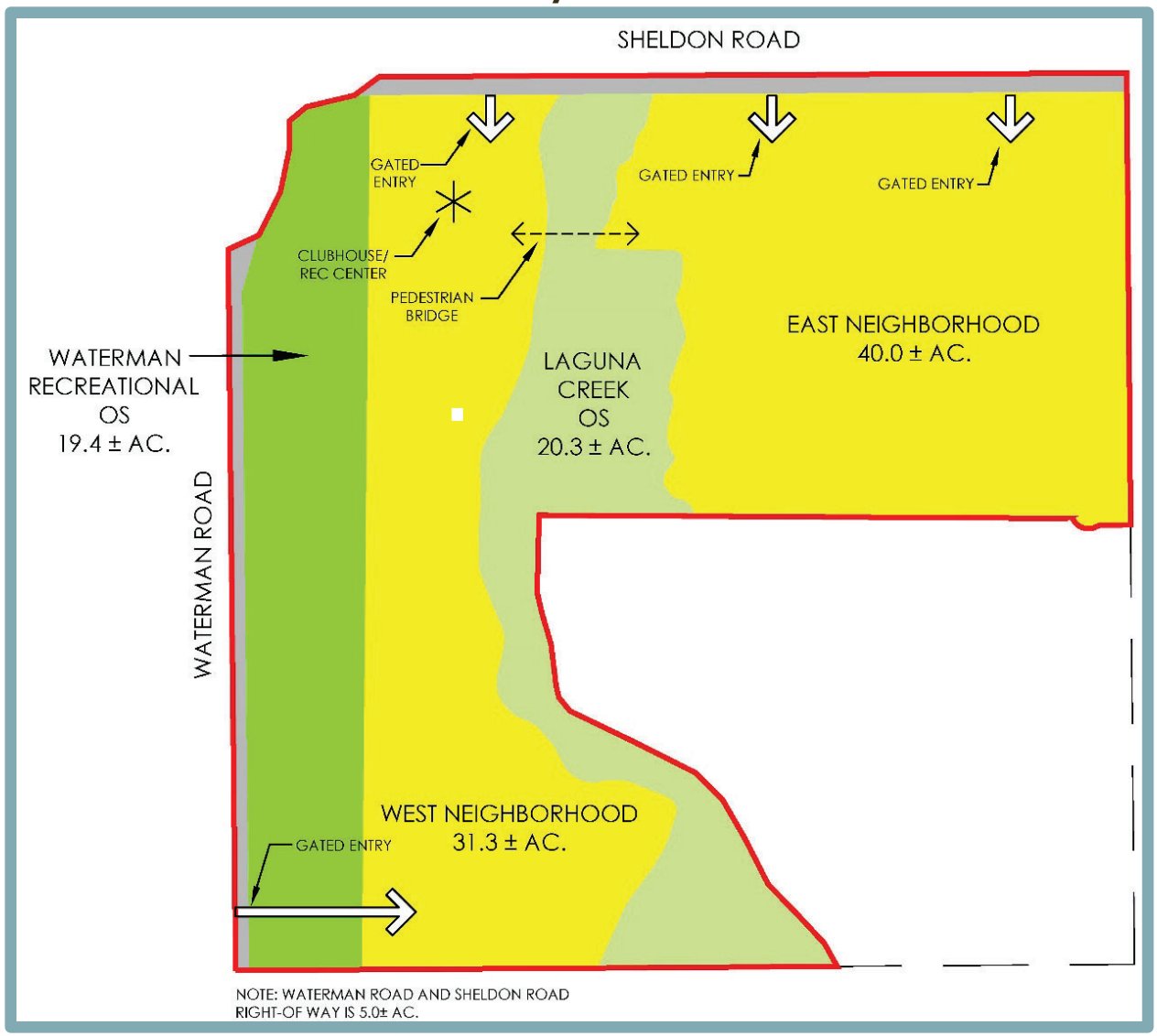


Figure 3-5
SPA Boundary and Sub-Zones



As previously discussed, the Summer Villas SPA would not approve any specific development. Rather, the SPA document would adopt site-specific zoning and development standards and criteria for future development proposals. The SPA would allow for potential future development of the 115.9 site with a maximum of 499 age-restricted (55+) single-unit residences, as well as various associated improvements, such as a private community recreation center/clubhouse (see Figure 3-6), private park space, trails and open space areas, landscaping, and a number of on- and off-site roadway and utility improvements.

The potential development assumptions and standards for each sub-zone are discussed in further detail below.

Active Adult Neighborhood

The 71.3-acre Active Adult Neighborhood sub-zone of the Summer Villas SPA includes two Active Adult Neighborhoods: the 31.3-acre West Neighborhood and the 40.0-acre East Neighborhood. This EIR assumes a maximum of 349 age-restricted single-unit residences would be developed in the East Neighborhood, and a maximum of 150 age-restricted single-unit residences would be developed in the West Neighborhood, for a maximum of 499 age-restricted single-unit residences to be potentially developed within the SPA. The two neighborhoods are bisected by the centrally located Laguna Creek Open Space area, and the West Neighborhood is buffered from Waterman Road by the Waterman Recreational Open Space area.

Permitted Uses

The following uses are permitted within the two Active Adult Neighborhoods, as established by the Summer Villas SPA:

- Active adult single-unit residences;
- Active adult two-unit residences;
- Private community recreation center/clubhouse uses, including ancillary uses such as privately operated retail (i.e., coffee shop, café)
- Private residential open space; and
- Small residential care facilities for the elderly;

In addition, large residential care facilities for the elderly would be allowed as a conditional use within the two Active Adult Neighborhoods.

Maximum Density

Detached and attached single-unit residences within the Active Adult Neighborhoods would be required to conform to a maximum density of 7.0 du/ac, consistent with the LDR designation and Clustering Policy (NR-1-9) in the City of Elk Grove General Plan.

Development Standards

All future residential development within the Active Adult Neighborhoods would be required to comply with the development standards presented in the SPA, including minimum lot size, maximum density, minimum setback, maximum height, and lot coverage requirements.

Large residential care facilities for the elderly shall be subject to the development standards in the EGMC Section 23.88.040, as presented in the SPA, including maximum floor-area-ratio (FAR), minimum setback, and maximum height requirements.

Figure 3-6
Conceptual Site Plan – Private Community Recreation Center/Clubhouse



*Figure not OCR compatible.

In addition, the clubhouse/recreation center would be required to comply with the development standards presented in the SPA, including maximum FAR, minimum setback, and maximum height requirements.

Parking Standards

All detached and attached single-unit residences within the Active Adult Neighborhoods would be required to provide one covered or enclosed parking space per unit. Guest or visitor parking spaces may be provided on the driveway or curbside (off street).

The private community recreation center/clubhouse would be required to provide a minimum of one parking space for every 200 sf of gross floor area, which may be provided within an on-site parking lot or on internal adjacent streets.

The amount of parking for a large residential care facility for the elderly would be determined during the Conditional Use Permit process and would be consistent with EGMC Table 23.58-2 in Section 23.58.050 of the EGMC, or as otherwise approved. The parking spaces may be provided within an on-site parking lot or on internal adjacent streets.

Laguna Creek Open Space

The 20.3-acre Laguna Creek Open Space area allows for the preservation of the Laguna Creek corridor and the protection of sensitive on-site wildlife habitat. The open space area also provides for the containment of the 100-year floodplain. As such, with the inclusion of the Laguna Creek Open Space area, all future on-site development is anticipated to occur outside of the 100-year floodplain limits. A pedestrian bridge through the Laguna Creek Open Space area would connect the two Active Adult Neighborhoods.

Permitted Uses

Permitted uses within the Laguna Creek Open Space area, as established by the Summer Villas SPA, are as follows:

- Resource protection and restoration;
- Resource-related recreation;
- Drainage facilities; and
- Utilities.

Waterman Recreational Open Space

The 19.4-acre Waterman Recreational Open Space area is constrained by several existing easements for overhead powerlines. However, the open space area would allow for several active and passive recreational amenities to be provided on-site, including, but not limited to, a publicly accessible multi-use trail connection that would run north-south, parallel with Waterman Road, or trail connections, and amenities associated with the private community recreation center/clubhouse with hard courts (e.g., tennis courts, pickleball courts) and visitor parking. The Waterman Recreational Open Space area could be graded to provide detention or water quality basins, or to provide an on-site earthwork balance. In addition, the area could include, or be overlapped by, internal roads servicing the West Neighborhood.

Permitted Uses

Permitted uses within the Waterman Recreational Open Space area, as established by the Summer Villas SPA, are as follows:

- Private Residential Open Space;
- Resource-Related Recreation;
- Drainage Facilities;
- Utilities;
- Private streets and access roads to serve neighborhoods; and
- Accessory parking, including parking areas needed to serve on-site amenities or uses within adjacent active adult neighborhoods.

Site-Specific Street Standards

The street system within the SPA requires a modified grid pattern with internal streets, sidewalks, and paseos promoting walkability within the active adult community. Internal residential streets would vary depending on the need for curbside parking and sidewalks on one or both sides of the street. Modified vertical or rolled curb designs would be allowed. Streets would be required to be designed such that the minimum face of the curb return radius would allow fire truck turn movements. In addition, a 75-foot minimum offset between intersections would be required for the internal private streets due to the low traffic volumes and low travel speeds anticipated for the SPA. Additionally, shared driveways located off of the internal roadway network could be used to provide access to a maximum of eight units per driveway.

Site Specific Landscaping and Fencing Standards

Interior residential lots within the two Active Adult Neighborhoods could be designed such that traditional rear yard fencing are eliminated to allow rear yard paseos or a mid-lot paseos with enhanced landscaping. The Homeowners Association (HOA) for both neighborhoods would obtain a use and maintenance easement for such areas. Landscaped paseo lots would be designated for landscaping, drainage features, and to provide residents access to pedestrian pathways. The inclusion of paseos could reduce the need for sidewalks along some of the internal roadway network. Enhanced entry landscaping and/or separated sidewalks could also be provided at the entry gates to enhance the pedestrian network within the project area. Landscaping for senior care facilities is subject to EGMC Section 23.54. All landscaping would be required to comply with the State's Model Water Efficient Landscape Ordinance (MWELO).

Site-specific fencing standards would be as follows:

- Fencing along a paseo or open space/recreational open space shall not exceed six feet in height and shall either be six feet open view material or five feet open view material above a one foot solid masonry wall.
- Interior and rear yard fencing shall not exceed six feet in height (can be open view or solid material. Street side yard fencing shall be located a minimum of five feet from back of sidewalk (or back of curb where there is no sidewalk).
- Fences in front yards shall not exceed three feet in height.
- Fencing adjacent to Sheldon Road shall be open view material with pilasters (every 50 feet minimum) unless a noise study determines that a solid wall is required to bring Project noise levels in compliance with interior and exterior residential noise standards in EGMC Chapter 6.32.

Utilities

The site does not currently include utilities infrastructure; however, the Project would include water, sanitary sewer, and stormwater improvements, which would connect to existing infrastructure in the Project vicinity.

Treated water service for the Project would be provided by Elk Grove Water District (EGWD)/Sacramento County Water Agency (SCWA). Specifically, the site is located in the north central portion of EGWD's Service Area 2; however, while EGWD owns and maintains the smaller distribution mains (i.e.,12-inch diameter and smaller) within their service area, SCWA owns and maintains the larger transmission main infrastructure in the area. In addition to EGWD's water well supplies, EGWD has maintained a long-standing agreement with SCWA to purchase additional water supplies. Because the existing site is located in the Rural Area Community and is currently larger than two acre lots, the water supplies for two-acre parcels or more is provided by individual wells for each parcel. As such, the closest treated water pipelines consist of an 18-inch transmission main in Waterman Road at the Elliott Springs Drive intersection (located at the southwest corner of the site) and another 18-inch transmission main stub in Waterman Road near Calvine Road, approximately one mile north of the site. According to SCWA and EGWD, the approximately 8,000-foot gap between the two 18-inch stubs in Waterman Road would need to be connected to provide the necessary looped system to service the Project. In addition, a 24-inch transmission main would need to be constructed in Sheldon Road along the project frontage to the north. The 24-inch transmission main would cross Laguna Creek by either boring and jacking the line under Laguna Creek or alternatively, attaching the line to the existing approximately 130-foot-long Sheldon Road Bridge. As an alternative to extending the 18-inch transmission main to the north in Waterman Road to connect near Calvine Road, the proposed 24-inch transmission main in Sheldon Road could be extended approximately 5,000 feet to the west from the Sheldon Road/Waterman Road intersection, connecting to an existing 18-inch transmission main near Elk Grove Florin Road. The internal on-site water line network would consist of smaller (eight- to 12-inch diameter) pipes located under the internal street system within a dedicated easement. To provide a looped system for the east side of the Project approximately 2,800 feet of additional water line crossing Laguna Creek would need to be provided on-site. Similarly, the crossing would require a bore and jack installation under the creek or alternatively, could be attached to a bridge structure over the creek. Figure 3-7 presents the proposed water system improvements.

Sanitary sewer service for the Project would be provided by the Sacramento Area Sewer District (SacSewer). Based on the SacSewer 2020 System Capacity Plan (SacSewer 2020), the site is located within the BR Bond Sheldon Trunk Shed, which encompasses the Rural Residential Sheldon Area in which the site is located. As described in SacSewer 2020, SacSewer was previously informed by the City of Elk Grove that the Rural Residential Sheldon Area was not planned to be served by public sewers. Consequently, existing backbone gravity sewer infrastructure with sufficient depth and/or capacity to serve the Project is not available in proximity to the site.

Because gravity sewer service to the site is not feasible, public sewer service would be provided to the site through the construction of an on-site sewer lift station and corresponding off-site sewer force main, which would discharge to an existing SacSewer gravity sewer network with sufficient residual capacity to support the Project. The proposed on-site lift station is anticipated to be located in the northwest corner of the site.

Figure 3-7
Proposed Water System Improvements

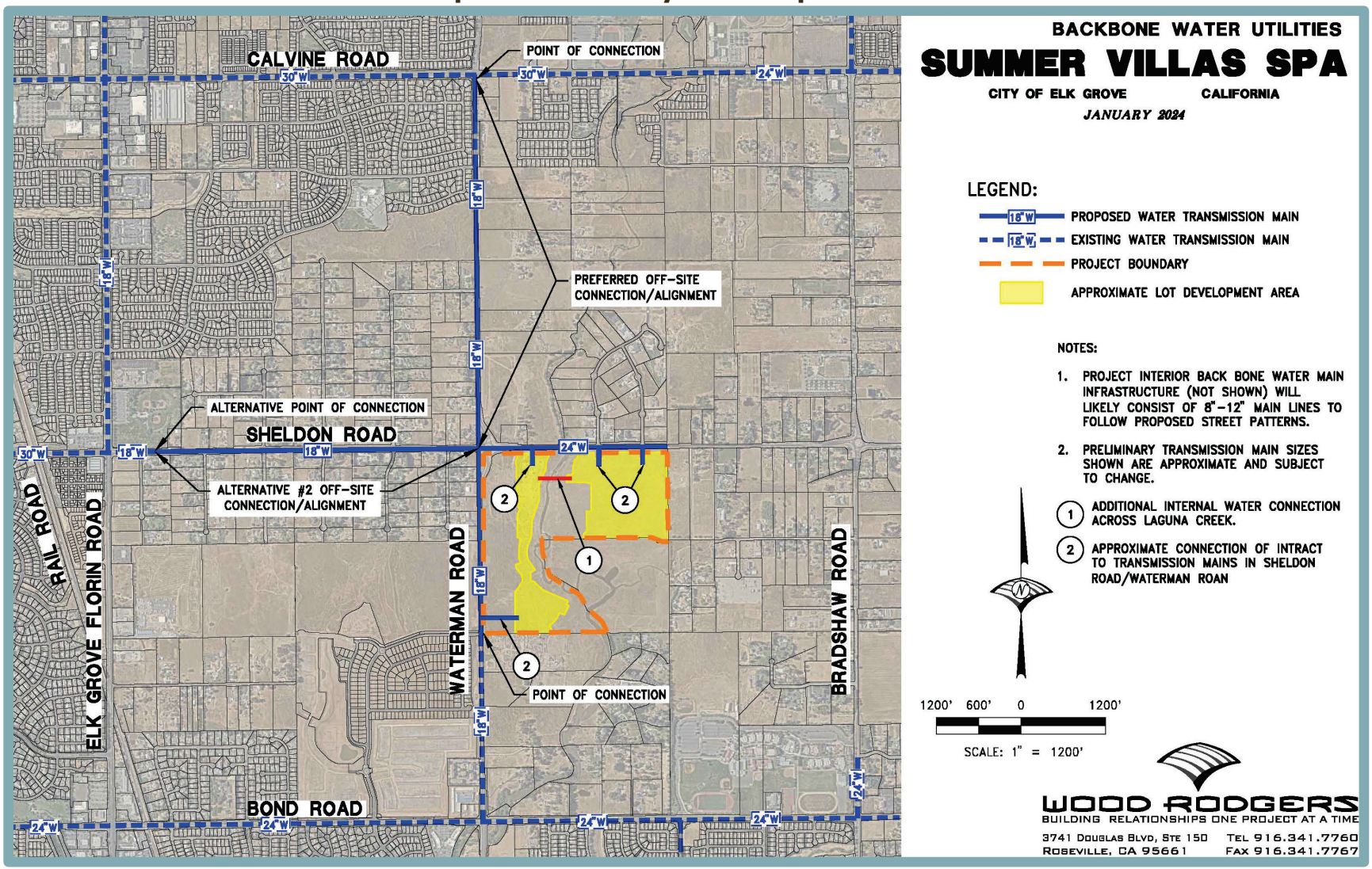


*Figure not OCR compatible.

According to SacSewer, the closest viable force main discharge point is at MH 282-179-1014, located in Elk Grove Florin Road approximately 700 feet north of Sheldon Road. As such, the Project would be required to construct approximately 6,500 linear feet of off-site, four- to six-inch diameter force main in Sheldon Road and Elk Grove Florin Road to support the Project.

Figure 3-8 presents the proposed sewer system improvements. The on-site sewer pipeline network would consist of eight-inch sewer lines located under the proposed roadway network within a dedicated easement, and would ultimately outfall to the proposed on-site lift station. Because the developable areas of the site are bisected by Laguna Creek, the gravity system on the east side of the site would require a bore and jack installation under Laguna Creek to achieve outfall to the lift station. The creek crossing would be located parallel to a proposed bicycle/pedestrian bridge of Laguna Creek.

Development of the site would require installation of on-site drainage facilities and alteration of site topography to accommodate the proposed land uses. As discussed previously, Laguna Creek bisects the site. As such, the runoff from the proposed on-site development, as well as runoff from Waterman Road and Sheldon Road along the project frontage, would drain internally, and would ultimately outfall to Laguna Creek. Storm drain system improvements would consist of a combination of storm drain pipeline infrastructure located under the proposed roadway network within a dedicated easement, roadside ditches, drainage basins for storm attenuation, and bioretention/low-impact development (LID) features, as well as outfall ditches to Laguna Creek.

Depending upon the final storm drain system configuration, a Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR) may need to be filed with the Federal Emergency Management Agency (FEMA) to address modifications to the Laguna Creek floodplain. On-site drainage basins are currently anticipated to be located to the east and west of Laguna Creek outside of the 100-year floodplain. However, final sizing and locations have not been determined at this time of the DEIR. Figure 3-9 presents the proposed storm drain system improvements.

The Project is within the service area of the Sacramento Municipal Utility District (SMUD) for electricity. Existing electricity lines are currently located along Sheldon Road and Waterman Road in the project area. Telecommunication services would be extended from neighboring areas, such as the Elliot Springs SPA Subdivision to the southwest, as determined by the service provider during improvement plan preparation. Telecommunication services would use public utility corridors parallel to Waterman Road and Sheldon Road to reach the site.

The Project would connect to existing dry utility lines within the project vicinity. A 12.5-foot public utility easement for dry utilities (e.g., phone, cable, electricity) would be provided behind the curb of the internal roadways within the active adult community.

Off-Site Roadway Improvements

The Transportation Impact Analysis (TIA) prepared for the Project by Fehr & Peers evaluates the effects of the Project on traffic operations (automobile delay and roadway capacity) at potentially affected roadways and intersections, which is outside the scope of CEQA as of July 1, 2020 (see CEQA Guidelines Section 15064.3[a] and additional discussion in Chapter 4.11 of this EIR). Despite this, traffic operations have been analyzed “outside” of the CEQA process to understand how the surrounding roadway system may be affected by the Project, to determine needed infrastructure upgrades, and to evaluate consistency with applicable General Plan policies related to traffic operations.

Figure 3-8
Proposed Sewer System Improvements

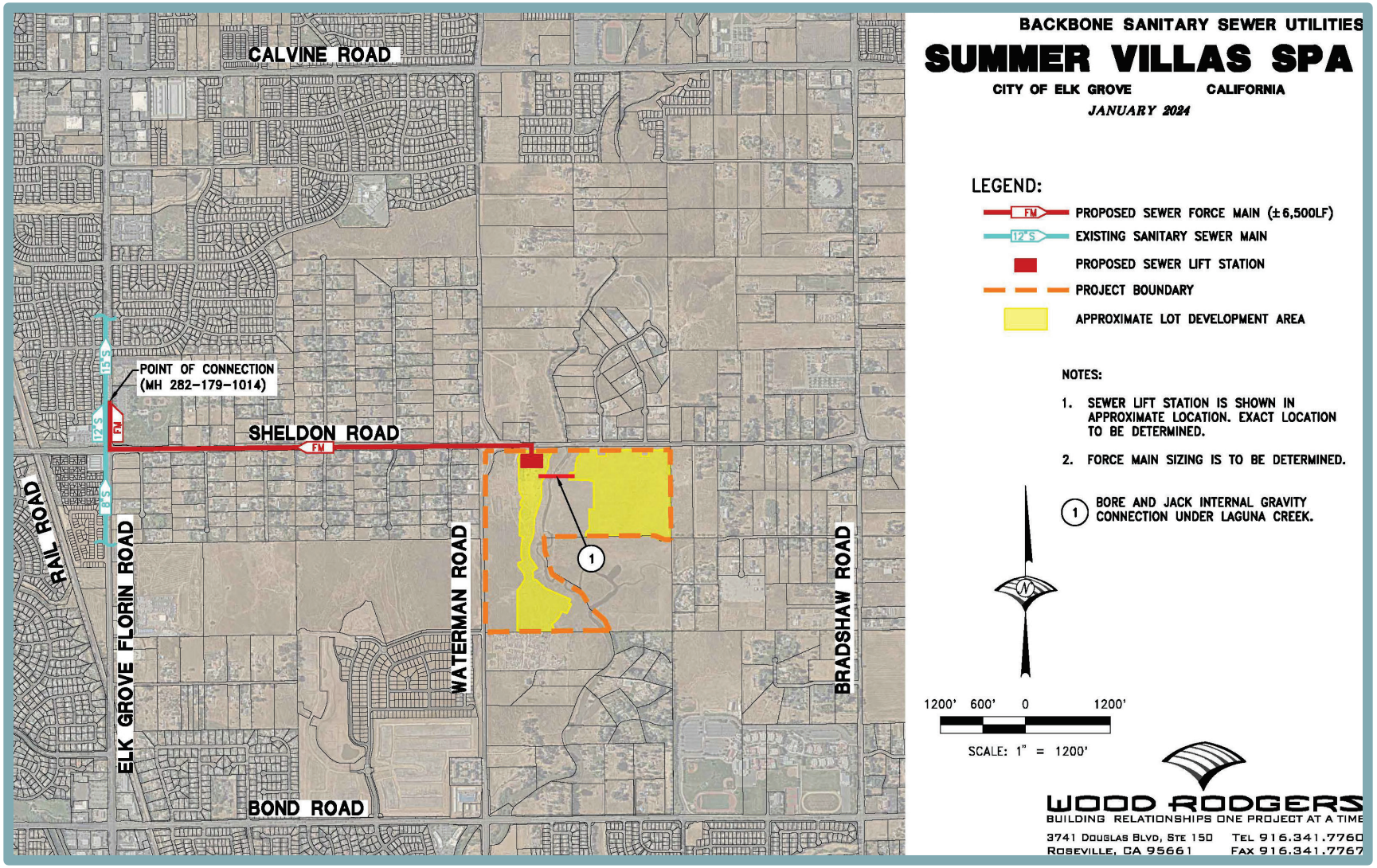


*Figure not OCR compatible.

Figure 3-9
Proposed Storm Drain System Improvements

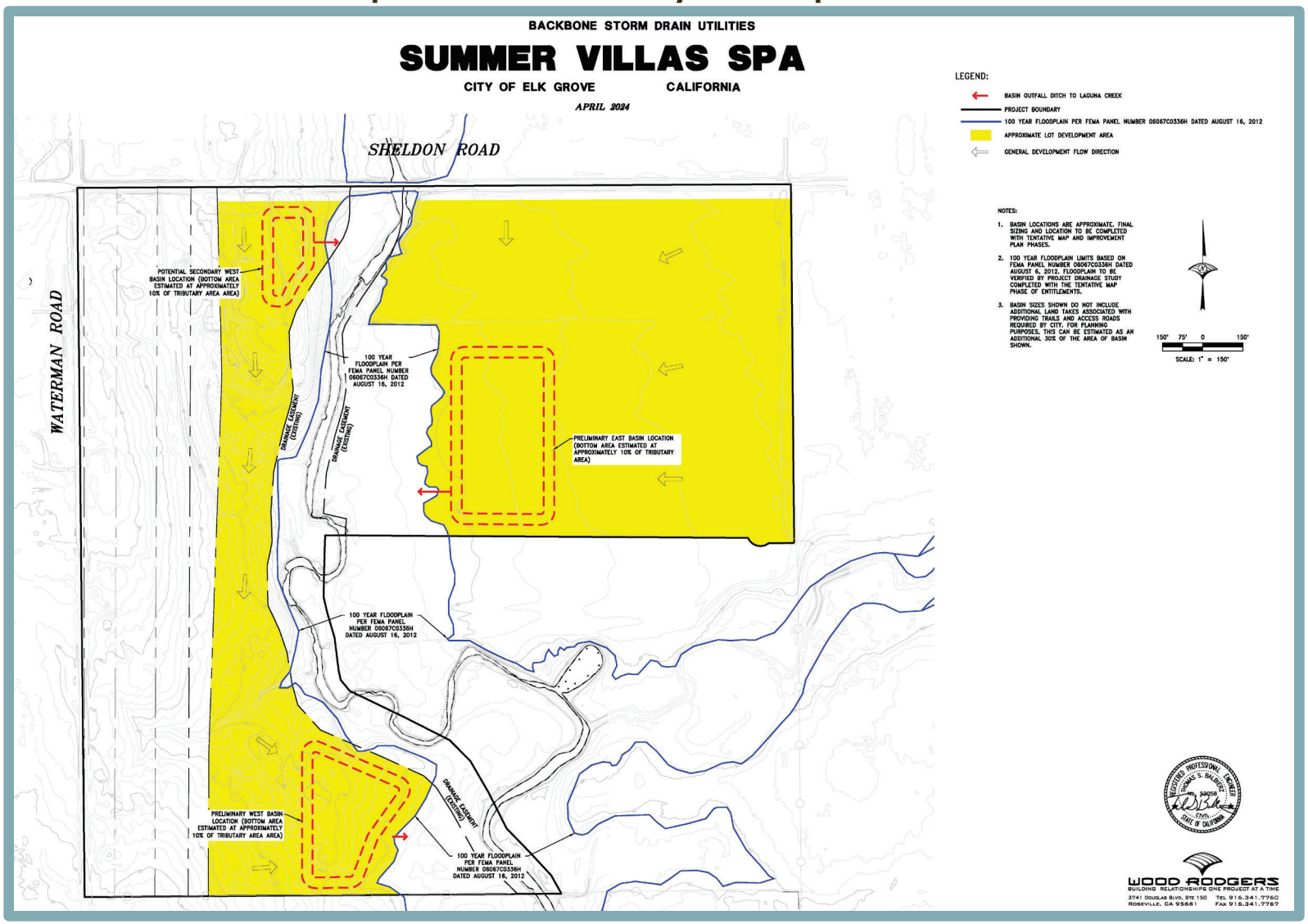


*Figure not OCR compatible.

The TIA identifies the following roadway improvements that would be triggered by the Project under existing plus project and cumulative plus project conditions:

- **Sheldon Road/Waterman Road Roundabout –** Reconfigure the roundabout to a two-lane circulatory design and widen the approaches to accommodate an additional lane for all movements at the intersection. Widening will be limited to the intersection only, with the two lanes tapering off into one lane.
- **Sheldon Road/Bradshaw Road Roundabout –** Reconfigure the roundabout to include two travel lanes in the east-west direction. Widening will be limited to the intersection only, with the two east-west lanes tapering off into one lane.

This EIR will study the potential physical environmental effects associated with the roadway improvements.

3.6 REQUIRED DISCRETIONARY APPROVALS

Implementation of the Project would require the following discretionary actions by the City of Elk Grove:

- Certification of the EIR, including adoption of Findings of Fact, a Statement of Overriding Considerations, and a Mitigation Monitoring and Reporting Program;
- Approval of a General Plan/Rural Area Community Plan Amendment to remove the site from the Rural Area Community Plan and modify the land use designation from RR to LDR and P/OS;
- Approval of a SPA Ordinance for the Summer Villas SPA;
- Approval of a Text Amendment to the EGMC to add the new SPA; and
- Approval of a Rezone from AR-2 to SPA.

Future development within the Summer Villas SPA would also require additional approvals from the City and other jurisdictional agencies and service providers, as necessary. Such approvals include, but are not limited to, Tentative Map and/or Site Plan approval, Final Map approval and recordation, Improvement Plan review and approval, Grading Permit approval, Encroachment Permit approval, Design Review (as required by Section 23.16.080 of the EGMC, Zoning Code), Building Permit approval, and annexations into Community Facilities District (CFD) service areas, including CFD 2003-2 for law enforcement services, CFD 2006-1, Zone 3 (Street Maintenance), Zone 2 (Storm Water Drainage), and CFD-1 for fire protection services.

The Project may also require permits and/or approvals from a number of other agencies, including, but not limited to, the following:

- Cosumnes Community Service District (CSD);
- Regional Water Quality Control Board (RWQCB) – Central Valley Region);
- SacSewer;
- U.S. Army Corps of Engineers (USACE);
- California Department of Fish and Wildlife (CDFW);
- U.S. Fish and Wildlife Service (USFWS);
- Sacramento Metropolitan Air Quality Management District (SMAQMD); and
- Elk Grove Water District (EGWD)/Sacramento County Water Agency (SCWA).

4. Existing Environmental Setting, Impacts, and Mitigation

4.0 Introduction to the Analysis

4.0 INTRODUCTION TO THE ANALYSIS

4.0.1 INTRODUCTION

The technical chapters of this EIR include the analysis of the potential impacts of buildout of the Summer Villas Special Planning Area Project (Project) on a range of environmental issue areas. Chapters 4.1 through 4.11 of the EIR describe the environmental setting related to each specific issue area, methods of analysis, Project-specific impacts and mitigation measures, and a cumulative impact analysis for each issue area. The format of each of the technical chapters is described at the end of this chapter. It should be noted that technical reports are either attached to this EIR, available by request from the City of Elk Grove, or available on the City's website at: https://elkgrove.gov/planning/environmental-review.

4.0.2 DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the environment (Public Resources Code [PRC] Section 21068). The CEQA Guidelines require that the determination of significance be based on scientific and factual data. The specific criteria for determining the significance of a particular impact are identified within in each technical chapter and are consistent with significance criteria set forth in the CEQA Guidelines or as based on the professional judgment of the EIR preparers.

Significance Criteria

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance." In addition, the Guidelines state, "An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant." (CEQA Guidelines Section 15382).

As presented in Section 4.0.4 below, the level of significance of an impact prior to mitigation is included at the end of each impact discussion throughout the technical chapters of this EIR.

The following levels of significance prior to mitigation are used in this EIR:

1) Less than Significant: Impacts that may be adverse, but that do not exceed the specified thresholds of significance;
2) Significant: Impacts that exceed the defined standards of significance and require mitigation;
3) Less than Cumulatively Considerable: Where cumulative impacts have been identified, but the Project's incremental contribution towards the cumulative impacts would not be considered significant; and
4) Cumulatively Considerable: Where cumulative impacts have been identified and the Project's incremental contribution towards the cumulative impacts would be considered significant.

If an impact is determined to be significant or cumulatively considerable, mitigation is included, if available, in order to reduce the specific impact to the maximum extent feasible. A statement of the level of significance of an impact after mitigation is also included in each impact discussion throughout the technical chapters of this EIR. The following levels of significance after implementation of mitigation are used in the EIR:

1) Less than Significant: Impacts that exceed the defined standards of significance but can be eliminated or reduced to a less-than-significant level through the implementation of feasible mitigation measures;
2) Less than Cumulatively Considerable: Where the Project's incremental contribution towards cumulative impacts would be eliminated or reduced to a less than cumulatively considerable level through the implementation of feasible mitigation measures; and
3) Significant and Unavoidable Impact: An impact (Project-level or cumulative) that cannot be eliminated or reduced to a less-than-significant or less than cumulatively considerable level through the implementation of feasible mitigations measures.

Each environmental area of analysis uses a distinct set of significance criteria. The significance criteria are identified at the beginning of the Impacts and Mitigation Measures section in each of the technical chapters of this EIR. Although significance criteria are necessarily different for each resource considered, the provided significance levels ensure consistent evaluation of impacts for all resource areas evaluated.

4.0.3 ENVIRONMENTAL ISSUES ADDRESSED IN THIS EIR

The EIR provides the analysis necessary to address the technical environmental impacts of the Project. The following environmental issues are addressed in the separate technical chapters of this EIR:

- Aesthetics;
- Air Quality, Greenhouse Gas Emissions, and Energy;
- Biological Resources;
- Cultural and Tribal Cultural Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services and Utilities; and
- Transportation.

Chapter 5, Effects Not Found to be Significant, will address the Project's effects that were determined not to be significant, and thus, were not discussed in detail in a technical chapter of the EIR. See Section 6.3, Cumulative Impacts, of Chapter 6, Statutorily Required Sections, for additional information on the scope of the cumulative impact analysis for each environmental issue area addressed in the EIR.

4.0.4 TECHNICAL CHAPTER FORMAT

Each technical chapter addressing a specific environmental issue begins with an **introduction** describing the purpose of the section. The introduction is followed by a description of the Project's

existing environmental setting as the setting pertains to that particular issue. The setting description is followed by the **regulatory context** and the **impacts and mitigation measures** discussion, which contains the **standards of significance**, followed by the **method of analysis**. The standards of significance section includes references to the specific checklist questions consistent with Appendix G of the CEQA Guidelines. The **impacts and mitigation measures** discussion includes impact statements prefaced by a number in bold-faced type and an analysis of potential impacts for the Project, as well as a cumulative analysis.

An explanation of each impact and an analysis of the impact's significance follow each impact statement, followed by all mitigation measures pertinent to each individual impact The degree of relief provided by identified mitigation measures is also evaluated. An example of the format for each impact and mitigation measures is shown below.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the Project in comparison with the standards of significance.

4.x-1 Statement of Project-Specific Impact

Discussion of impact for the Project in paragraph format.

Statement of ***level of significance*** of impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR: less than significant, significant, or significant and unavoidable. If an impact is determined to be significant, mitigation will be included in order to reduce the specific impact to the maximum extent feasible. Impacts that cannot be reduced to a less-than-significant level with implementation of all feasible mitigation would be considered to remain significant and unavoidable.

Mitigation Measure(s)

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.x-1(a) *Required mitigation measure(s) presented in italics and listed in consecutive order.*

4.x-1(b) *Required additional mitigation measure, if necessary.*

Cumulative Impacts and Mitigation Measures

The following discussion of cumulative impacts is based on implementation of the Project in combination with cumulative development within the applicable area or region.

4.x-2 Statement of Cumulative Impact

Discussion of cumulative impacts for the Project in paragraph format.

As discussed in detail in Chapter 6, Statutorily Required Sections, of the EIR, the cumulative setting for the Project is generally considered to be development

anticipated to occur upon buildout of the City of Elk Grove General Plan (i.e., Elk Grove city limits).

Statement of ***level of significance*** of cumulative impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR for cumulative impacts: less than significant, less than cumulatively considerable, cumulatively considerable, or significant and unavoidable.

If an impact is determined to be cumulatively considerable, mitigation will be included in order to reduce the specific impact to the maximum extent feasible. Impacts that cannot be reduced to a less than cumulatively considerable level with the implementation of all feasible mitigation would be considered to remain significant and unavoidable.

Mitigation Measure(s)

Statement of *level of significance* after the mitigation is included immediately preceding mitigation measures.

4.x-2(a) *Required mitigation measure(s) presented in italics and listed in consecutive order.*

4.x-2(b) *Required additional mitigation measure, if necessary.*

4.1 Aesthetics

4.1 AESTHETICS

4.1.1 INTRODUCTION

The Aesthetics chapter of the EIR describes the existing visual resources of the Project area and the broader region, and evaluates the potential aesthetic impacts of the Project. The CEQA Guidelines describe the concept of aesthetic resources in terms of scenic vistas, scenic resources (including trees, rock outcroppings, and historic buildings), scenic highways, visual character or quality of the project area, and light and glare. Information for the chapter has been primarily drawn from the City of Elk Grove General Plan[1] and the associated General Plan EIR.[2]

Pursuant to the court ruling in *Preserve Poway v. City of Poway* (2016) 245 Cal. App.4th 560 [199 Cal.Rptr. 3d 600], psychological and social impacts are not considered significant effects on the environment and, thus, are not a CEQA issue. Rather, the analysis of aesthetics should be limited to tangible, physical evidence that a project is visually inconsistent with the surrounding community (rather than a psychological "feel"). Therefore, where applicable, the analysis presented within this chapter focuses on potential physical changes to visual character or quality of the site and surrounding area, rather than overall community character.

4.1.2 EXISTING ENVIRONMENTAL SETTING

The following setting information provides an overview of the existing conditions of visual resources in the project region and within the vicinity of the site.

Visual Character of the Region

The City of Elk Grove is located in the Sacramento Valley and contains mostly flat land without significant land forms, offering a wide view of the surrounding region. To the east, the Sierra Nevada foothills provide a distant backdrop on clear weather days while the Coast Range is visible across the Central Valley to the west. The Sierra Nevada foothills and Coast Range frame the City and create a sense of visual relief by maintaining a balance between urbanization and the natural environment.

Within the area surrounding the City (i.e., the Sacramento Valley), the visual character generally consists of suburban development, including single-residential units and multi-residential units set along wide meandering streets; commercial and office uses set in large retail and business centers; occasional industrial areas; smaller strip malls, parks, trails, and public spaces; and scattered vacant/undeveloped parcels and open agricultural land.

The western and central portions of the City are more urbanized, while the eastern portions predominantly contain rural residential uses surrounded by agricultural land and natural grasslands. State Route (SR) 99 bisects the City in a north-south direction, 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.

[1] City of Elk Grove. *General Plan.* Adopted February 2019. Amended December 13, 2023.
[2] City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* February 2019.

According to the General Plan EIR, scenic resources within the City, which are defined as significant visual features that contribute to the overall visual character of the area, include the Cosumnes River, Stone Lakes National Wildlife Refuge, and various parks, open space, lakes, rivers, and creeks in the surrounding area. The Cosumnes River, which flows southeast of the City, and the riparian corridor associated with the Cosumnes River, create recreational opportunities for fishing, kayaking, and birdwatching. The 50,000-acre Cosumnes River Preserve contributes to the preservation of the area's open spaces and wetlands and supports a variety of native wildlife and migratory bird species. The 18,212-acre Stone Lakes National Wildlife Refuge is located southwest of the City and contains natural habitat and agricultural land that supports migratory birds and several local endangered, threatened, and special-status species. Laguna Creek, which extends onto the site and runs north to south through the central portion of the site, is noted by the General Plan EIR to provide aesthetic benefits.

Scenic vistas are not officially designated within the City's planning area. The City's planning area is defined in the General Plan as an area encompassing 31,238 acres (48.8 square miles) of land within the existing incorporated City boundaries, as well as surrounding unincorporated areas of Sacramento County where the City may eventually expand.

State Scenic Highways

The California Scenic Highway Program has not designated scenic corridors along highways within or visible from the City's planning area.[3] A portion of SR 160, located one mile west of the City's current western boundary and approximately 8.31 miles west of the site, is an officially designated scenic corridor.

Visual Character of the Site and Surrounding Area

The following information provides an overview of the existing physical conditions of the site and surrounding area in relation to visual character.

Project Site

The site consists primarily of undeveloped grassland vegetation, with the exception of a single-unit residence and associated accessory structures in the northwest corner of the site. The remainder of the site is marked by the earthen tones of topsoil. In addition, tributaries of Laguna Creek centrally run from the northern site boundary to the southern part of the site. Several utility towers are located within the western portion of the site.

Surrounding Areas

Surrounding existing uses include rural residences and rural estate residences to the north, across Sheldon Road; undeveloped land and rural residences to the east; rural residences and a high school/middle school complex to the southeast; rural residences to the west, across Waterman Road; and mostly undeveloped land with a non-profit horse rescue operation to the south. The Elliot Springs Special Planning Area (SPA) Subdivision is currently under construction to the southwest. Laguna Creek extends from the north and east into the site.

Off-Site Improvement Areas

As discussed in further detail in Chapter 3, Project Description, of this EIR, development of the Project would trigger the need for off-site roadway and utility improvements. Specifically, the

[3] California Department of Transportation. *California State Scenic Highway System Map*. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed April 2025.

Project would require improvements to the existing roundabouts at the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections. The Sheldon Road/Waterman Road intersection is located adjacent to the site's northwest corner. Under existing conditions, both intersections consist of multi-lane roundabouts that may be approached from the north, south, east, and west, and include a vegetated central island.

Additional off-site improvements include the construction of approximately 6,500 linear feet of off-site four- to six-inch diameter force mains in Sheldon Road and Elk Grove Florin Road to support the Project, as well as the extension of water mains to either connect to an existing main in Waterman Road or near Elk Grove Florin Road. The foregoing off-site improvement areas would primarily be within existing disturbed areas and/or within existing roadway rights-of-way.

Public Versus Private Views

Travelers along nearby roadways, as well as the existing residences in the surrounding area, would be considered sensitive visual receptors. However, it is important to distinguish between public and private views. Private views are views seen from privately owned land and are typically viewed by individual viewers, including views from private residences. Public views are views that are experienced by the collective public. In the case of the Project, public views would consist primarily of views from Waterman Road, Sheldon Road, and the associated pedestrian and bicycle facilities.

CEQA (Public Resources Code [PRC] Section 21000 et seq.) case law has established that the question under CEQA is whether a project will affect the environment of persons in general, not whether a project will affect particular persons. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488] the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.'" Such a conclusion is consistent with the thresholds of significance established in Appendix G of the CEQA Guidelines. Therefore, it is appropriate to focus the aesthetic impact analysis on whether the project will adversely affect the environment of persons in general. Due to the rural nature of the surrounding area, a number of existing residences would have views of the site. Thus, the analysis herein considers the potential impacts to the views offered from the private residences in the vicinity in addition to potential impacts to public views.

Viewer Types

For the purposes of this analysis, individuals in the vicinity with views of the site that may be affected by the Project are categorized as follows:

- *Motorists* along Waterman Road and Sheldon Road have direct views of the site while driving past.
- *Pedestrians and bicyclists* in the area include nearby residents and visitors that use the public roadways to walk or bike to their destination. Such travelers have views of the site along Waterman Road and Sheldon Road as they pass the site, including on a paved pedestrian and cyclist trail located along the intersection of Waterman Road and Sheldon Road. However, because Waterman Road and Sheldon Road do not include existing sidewalks in the vicinity of the site, bicycle and pedestrian traffic along the project

frontages of these roads is limited to the area immediately surrounding the Waterman Road/Sheldon Road roundabout. In general, views experienced by pedestrians and bicyclists are similar to views experienced by motorists.

- *Recreationists* include those individuals who are involved in recreational activities and have views of the site. The group primarily includes individuals visiting the open space within the northern portion of the Elliot Springs SPA Subdivision area, west of the site.
- *Residents* of the existing rural and rural estate residences to the north, east, southeast, and west have limited visibility of the site.

Existing Conditions of Key Viewpoints

The key viewpoints evaluated in this chapter include segments of Waterman Road and Sheldon Road within the vicinity, as identified in Figure 4.1-1. In addition, views from the private residences located to the north, east, southeast, and west of the site are also evaluated. The following views are discussed in terms of foreground, midground, and background views, which are defined as follows:

- Foreground views are those immediately presented to the viewer and include objects at close range that could tend to dominate the view.
- Midground views occupy the center of the viewshed and tend to include objects that are the center of attention if they are sufficiently large or visually different from adjacent visual features.
- Background views include distant objects and other objects that make up the horizon. Objects in the background fade to obscurity with increasing distance. In the context of the background, the skyline can be an important location, because objects above this point are highlighted against the background of the sky.

Key Viewpoint #1: Existing Views from Waterman Road Looking East

Key Viewpoint #1 represents the existing view of the site looking east from Waterman Road and from the residences west of the site (see Figure 4.1-2). The immediate foreground consists of a paved roadway, gravel shoulder, grasses, and fencing, creating a boundary and limiting access to the adjacent open field. In the midground, the view transitions into a grassy field, featuring unmanaged vegetation. A wire and wooden fence delineates the separation between the road and the open space. Utility poles and overhead power lines extend across the frame, indicating a consistent human influence. Background trees provide vertical contrast and frame the horizon, interspersed with distant structures partially obscured by foliage.

Key Viewpoint #2: Existing Views Looking Southeast from the Waterman Road/Sheldon Road Roundabout

Key Viewpoint #2 represents the view of the site from the roundabout located at the intersection of Waterman Road and Sheldon Road, looking southeast (see Figure 4.1-3). The foreground features a portion of the paved roadway, an unpaved buffer containing freestanding light fixtures and signage, artistic cow models, and paved multi-use trails, as well as two landscape trees. The midground consists of the open field that comprises the site. The on-site vegetation is characterized by grassland with minimal variation in texture or color. Overhead utility lines span across the scene, creating a prominent visual feature. The background consists of a distant tree line with varying heights and densities, interspersed with faint glimpses of residential structures. The open sky occupies a large portion of the view, emphasizing the flatness of the terrain.

Figure 4.1-1
Overview Map of Key Viewpoint Locations

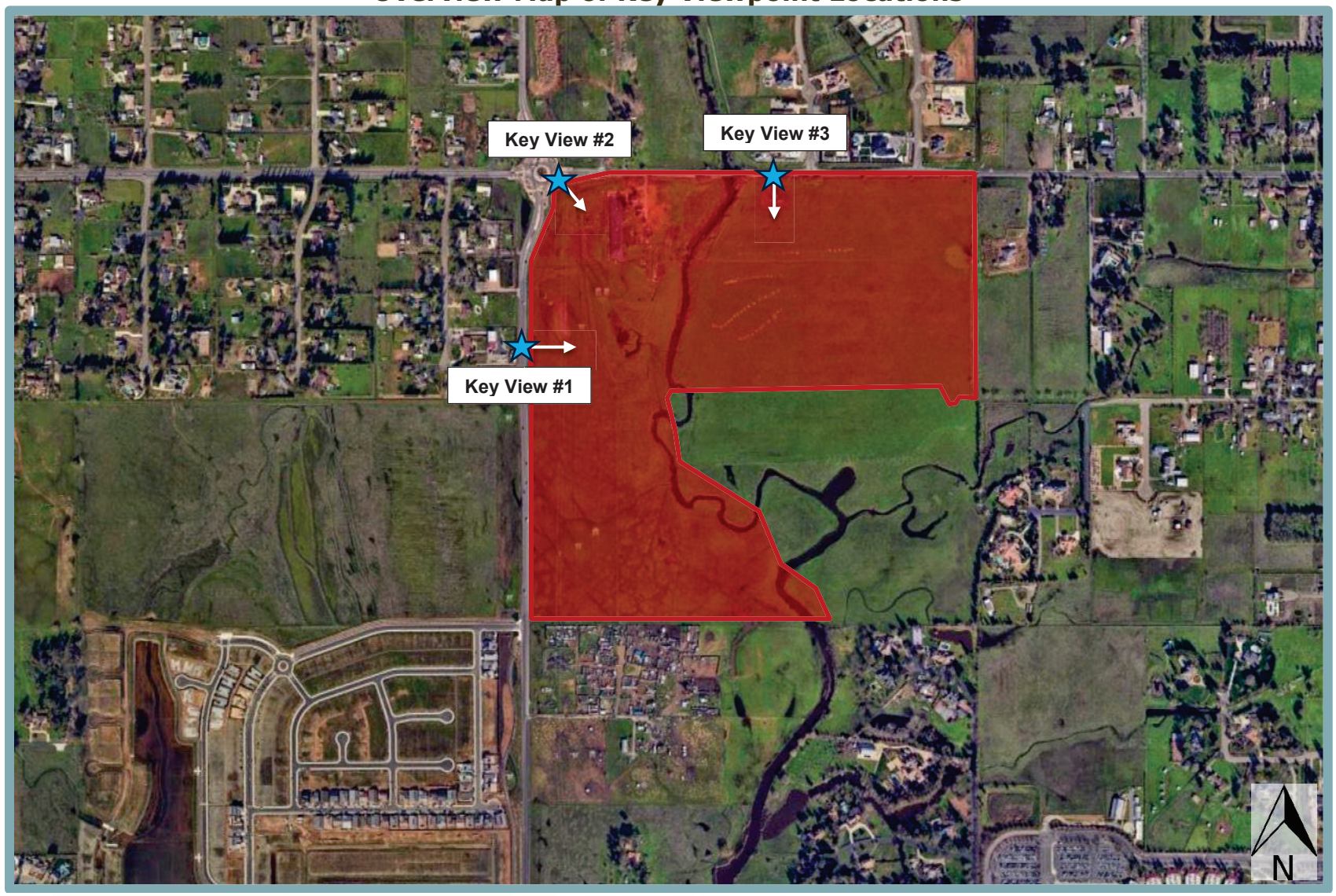


Figure 4.1-2
Existing View of Site Looking East from Waterman Road (View #1)



Figure 4.1-3
Existing View of Site Looking Southeast from the Waterman Road/Sheldon Road Roundabout (View #2)



Key Viewpoint #3: Existing Views from Sheldon Road Looking South

Key Viewpoint #3 represents the view of the site looking south from Sheldon Road, the residences north of the site, and the single-unit residences located east of the easternmost site boundary (see Figure 4.1-4). The immediate foreground includes an unpaved shoulder to Sheldon Road ending at a wire fence with wooden posts. The vegetation within the shoulder includes a mowed strip before the overgrown grasses, with the fenced area containing sparse vegetation and disturbed areas of upturned dirt consistent with grazing animals and the use of yard maintenance equipment. An open field of grassland largely lacking utility infrastructure, as well as the existing on-site single-unit residence and accessory structures, is visible in the midground, and multiple transmission towers and power lines can be seen in the distance to the right. The background includes the aforementioned utility infrastructure elements, as well as a tree line with mixed-height vegetation. Scattered residential structures are partially visible through the trees.

Existing Views from Residences to the South and Southeast

The single-unit residences to the south and southeast of the site are private and, as such, cannot be sufficiently captured as key viewpoints. The existing views are generally understood to include views of undeveloped grassland similar in nature to Key Viewpoint #1, and may also afford views of the vegetation and aquatic resources associated with the Laguna Creek tributaries. It should be noted that the majority of the land adjacent to the single-unit residences to the south and southeast of the site is located outside of the site boundaries and would not be developed as part of the Project.

Light Pollution and Glare

Light pollution refers to unwanted light in the night sky, including glare, light trespass, sky glow, and over-lighting. Views of the night sky can be an important part of the natural environment, particularly in communities with extended viewsheds. Excessive light and glare can also be visually disruptive to humans and nocturnal animal species.

The site is generally undeveloped and unlit, with the exception of interior and exterior light associated with the single-unit residence with accessory structures in the northwest corner of the site. The most significant existing sources of light and glare in the site vicinity include the existing freestanding light fixtures along, and headlights from vehicles traveling on Waterman Road and Sheldon Road. Other existing sources of light include the existing neighborhoods to the north and to the west, as well as the rural residences to the east. The land south of the site contains the horse rescue facility, which consists of a stable and outdoor operations, and generates a minimal light impact.

4.1.3 REGULATORY CONTEXT

Applicable federal laws or regulations pertaining to aesthetics do not exist. Existing State and local laws and regulations applicable to the Project are listed below.

State Regulations

The following are applicable State regulations related to aesthetic resources.

California Scenic Highway Program

The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. The State Legislature lists portions of highways that are eligible for designation in California Streets and Highways Code Sections 260 through 284.

Figure 4.1-4
Existing View of Site Looking South from Sheldon Road (View #3)



In order for an eligible highway to be officially designated by Caltrans, the local government with jurisdiction over the land that abuts the highway must adopt a program that limits development, outdoor advertising, and earthmoving along the highway segment, pursuant to Caltrans' approval of the program criteria.

Local Regulations

The following local regulations are applicable to the Project.

City of Elk Grove General Plan

The following goals and policies from the City's General Plan related to aesthetics are applicable to the Project:

Goal LU-5 Consistent, high-quality urban design

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.

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-5-9 Emphasize placemaking design principles in new development projects.

Goal NR-1 Protected Natural Open Space Lands That Provide Recreation And Habitat For Native Species

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.

Goal NR-2 Preserved Trees and Urban Forest

Policy NR-2-3 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.

City of Elk Grove Design Guidelines

To assist project applicants in understanding the City's design objectives, the City has developed Design Guidelines to provide clear direction, ensure design flexibility and approval certainty, and accommodate unique site conditions. The Design Guidelines include design provisions for site planning, architecture, lighting, and landscaping, as well as provisions for the preservation of natural features and compatibility with surrounding properties. For example, the City's Design Guidelines require that a minimum 15-gallon tree size be used for accent trees in landscaped areas, while also requiring landscaping at project entries and common spaces. The exact placement of the trees in the landscape area is left to the project applicant to propose consistent with their overall site plan. Similarly, the Design Guidelines require lighting in parking lots, along walkways, and in other common areas, as well as establishing a maximum height for light fixtures of 20 feet, with shielding to direct light downward.

City of Elk Grove Municipal Code

The applicable ordinances within the Elk Grove Municipal Code (EGMC) associated with aesthetics are discussed in further detail below.

Design and Improvement Standards

Subdivision projects within the City of Elk Grove are required to conform to the design standards and improvement standards established in Chapter 22.20, including standards related to roadways and access, as well as lot patterns. As described in EGMC Section 22.20.020, new developments are also required to comply with the latest version of the City Improvement Standards, Construction Specifications and Standard Drawings, and/or any applicable SPA.

Design Review

Section 23.16.080 of the EGMC establishes the City's seven Design Review processes, the purpose of which is to promote the orderly and harmonious growth of the City; encourage development in keeping with the desired character of the City; ensure physical, visual, and functional compatibility between uses; and prevent the depreciation of land values by ensuring proper attention is given to site and architectural design. Design Review permits also allow for modifications to the conventional development regulations of the underlying zoning district under special circumstances, with the exception of the uses permitted within an underlying zoning district. Future on-site development would ultimately be subject to the EGMC Subdivision Design Review, which is required for any tentative subdivision map. A separate Design Review would be required for the proposed the private community building/clubhouse or residential care facility.

Lighting

Chapter 23.56 of the EGMC includes lighting standards for single-residential unit, multi-residential unit, and non-residential development, as well as lighting prohibitions. The regulations and requirements established therein are intended to promote the preservation of the natural nighttime outdoor environment by regulating artificial lighting, as well as limit glare and light pollution to ensure adequate safety, night vision, and comfort.

4.1.4 IMPACTS AND MITIGATION MEASURES

The section below describes the standards of significance and methodology used to analyze and determine the Project's potential impacts related to aesthetics. A discussion of the Project's impacts, as well as mitigation measures, where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an impact related to aesthetics is considered significant if the Project would result in any of the following:

- Have a substantial adverse effect on a scenic vista (see Chapter 5, Effects Not Found to be Significant);
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway (see Chapter 5, Effects Not Found to be Significant);
- In a non-urbanized area, substantially degrade the existing visual character or quality of views of the site and its surroundings; or
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

As noted above, issues related to whether the Project would result in any of the following impacts are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

- Have a substantial adverse effect on a scenic vista; and
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.

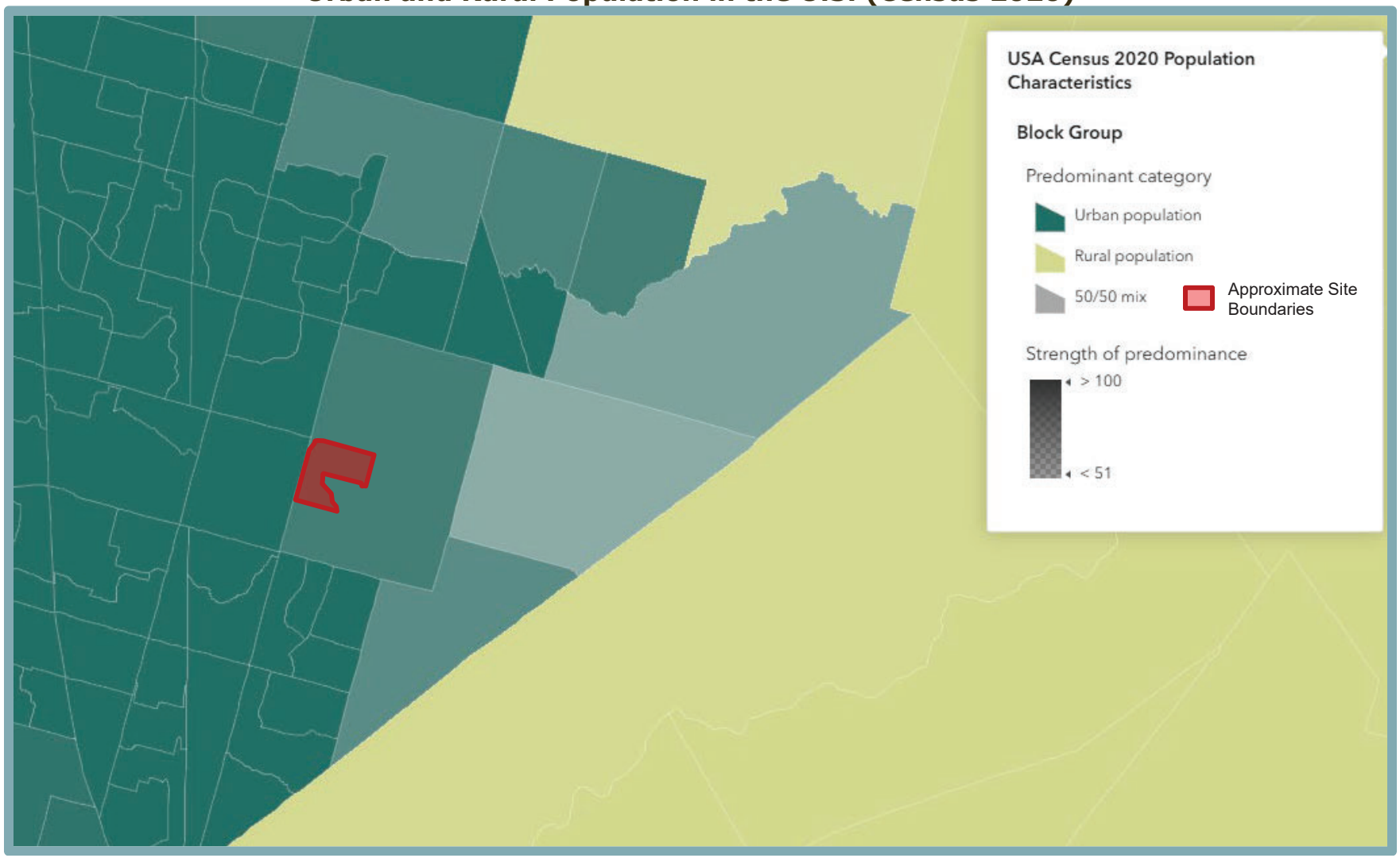
Method of Analysis

Pursuant to Appendix G of the CEQA Guidelines, different aesthetic standards apply in "non-urbanized" and "urbanized areas" respectively. For non-urbanized areas, the inquiry asks whether a proposed project "would substantially degrade the existing visual character or quality of views of the site and its surroundings." For urbanized areas, the question is whether the project would "conflict with applicable zoning and other regulations governing scenic quality." Under the CEQA Guidelines, "urbanized area" is a term defined in CEQA Guidelines Section 15387 as "a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile."

Based on the CEQA definition and that the Project area is designated as an urban area by the latest U.S. Census map (see Figure 4.1-5), the site meets the definition for an urbanized area.[4]

[4] U.S. Census Bureau. *Urban and Rural Population in the U.S. (2020 Census).* Available at: https://www.arcgis.com/home/item.html?id=458e2c20ebb2479086bc32b7d09ffe27. Accessed September 2025.

Figure 4.1-5
Urban and Rural Population in the U.S. (Census 2020)



Source: U.S. Census Bureau, September 2025.

Therefore, the applicable threshold is whether the Project would conflict with any applicable zoning and/or other regulations governing scenic quality.

The California Natural Resources Agency (CNRA), in fashioning the inquiries in Appendix G, may have suggested different approaches to aesthetic analyses in non-urbanized areas and urbanized areas to avoid purely aesthetic concerns – such as height and mass by themselves – from deterring dense, land-efficient development in urbanized areas. In such highly developed areas, additional high-density development can reduce the long-term environmental effects of what is often called sprawl by making an efficient use of areas that are already highly urbanized. Thus, projects proposed in such areas only require an evaluation of consistency with city or county regulations that govern scenic quality, such as design guidelines (See *Bowman v. City of Berkeley* [2004] 122 Cal.App.4th 572, 592, 594 ["[t]he aesthetic difference between a four-story and a three-story building on a commercial lot on a major thoroughfare in a developed urban area is not a significant environmental impact, even under the fair argument standard"; "[w]here a project must undergo design review under local law that process itself can be found to mitigate purely aesthetic impacts to insignificance"]).

By contrast, in less developed areas, concerns about mass and height and how they affect existing visual conditions are more appropriate. The site is within the City's Rural Area Community Plan and is surrounded by rural residences, a high school/middle school complex to the southeast, and mostly undeveloped land with a with a non-profit horse rescue operation to the south. According to survey results from the American Community Survey (ACS), the surrounding populated areas do not include 1,000 persons per square mile.[5] Thus, due to the rural nature and low population of the site vicinity, the City has chosen to also analyze the site as a "non-urbanized area" in addition to the analysis as an urbanized area.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to aesthetic resources is based on development of the Project in comparison to existing conditions and the standards of significance presented above.

4.1-1 In a non-urbanized area, substantially degrade the existing visual character or quality of views of the site and its surroundings. Based on the analysis below, due to the lack of feasible mitigation, the impact is *significant and unavoidable*.

Given that the existing development in the immediate vicinity of the site is primarily rural in nature, the following discussion includes an analysis of potential impacts related to visual character and quality of views of the site and its surroundings. As shown in Figure 3-5 and Figure 3-6 in Chapter 3, Project Description, of this EIR, future potential development of the site would include a maximum of 499 age-restricted (55+) single-unit residences, as well as various associated improvements, such as a private community recreation center/clubhouse, private park space, trails, private and public open space areas, landscaping, and on- and off-site roadway and utility improvements. As discussed in further detail in Chapter 3 of this EIR, all future development would be required to comply with the development standards established in the SPA, which could potentially include maximum building heights (25 feet for

[5] ESRI Business Analyst. *ACS Housing Summary, Summer Villas SPA Project.* September 2025.

residential structures and 40 feet for large residential care facilities and non-residential structures), as well as minimum setback standards.

The proposed SPA would include the preservation of the 20.3-acre Laguna Creek Open Space area in the center of the site, which includes the Laguna Creek corridor and the 100-year floodplain; the only development within the Laguna Creek Open Space area would consist of a pedestrian bridge connecting the two residential neighborhoods. Similarly, the 19.4-acre Waterman Recreational Open Space in the western portion of the site, between Waterman Road and the proposed West Neighborhood, would allow for several active and passive recreational amenities to be provided on-site, including, but not limited to, a publicly accessible multi-use trail connection that would run north-south, parallel with Waterman Road, private trails or trail connections, and amenities associated with the private community recreation center/clubhouse such as hard courts (e.g., tennis courts, pickleball courts) or visitor parking.

The proposed SPA also includes site-specific street standards, ensuring that the street system within the SPA would be designed to follow a modified grid pattern with internal streets, sidewalks, and paseos promoting walkability within the active adult community. As shown in Figure 3-5, SPA Boundary and Sub-Zones, of this EIR, gated access roadways are tentatively proposed from Sheldon Road to the north and from Waterman Road to the west.

Furthermore, as discussed further in Chapter 3, Project Description, of this EIR, the SPA includes design standards related to landscaping and fencing, requiring that enhanced entry landscaping and/or separated sidewalks be provided at the entry gates and that fencing along a paseo or open space/recreational open space shall not exceed six feet in height with a variety of materials, including open view materials.

As discussed above, views of the site are afforded from Waterman Road, Sheldon Road, and the intersection of the foregoing roadways, as well as the single-unit residences fronting both roads and in the general area. Changes to views from each viewpoint due to development of the Project are discussed separately in further detail below. The proposed off-site improvements would predominantly occur within existing roadway rights-of-way, and after construction of the off-site improvements are completed, any views of such areas would be consistent with current views. Therefore, views associated with the off-site improvement areas would not be substantially degraded by the Project.

View #1: Views from Waterman Road Looking East

As discussed previously, the western portion of the site would consist of the 19.4-acre Waterman Recreational Open Space as well as the West Neighborhood, and would potentially be developed with amenities associated with the private community recreation center/clubhouse such as hard courts or visitor parking within the Waterman Recreational Open Space, as well as with single-unit residences. The foreground of View #1 would generally be preserved as an undeveloped space, occupied only with an open space trail that would run north-south parallel to Waterman Road. As discussed above, should fencing be installed along the western boundary of the site, such fencing would be required to consist of open view material, thus permitting views of the open space area. While a gated entry and access roadway would extend from

Waterman Road to the proposed residential and recreational uses, landscaping would be included at the gated entry. As such, the foreground of View #1 would not be significantly altered, as the existing views of the on-site fields would be generally preserved.

As discussed above, existing midground views include utility poles and overhead power lines, indicating a consistent human influence, and altering existing on-site visual quality. Nonetheless, the proposed development would entirely replace midground and background views of the existing grassy field and distant trees with the proposed recreational and residential development.

Although the existing visual quality of View #1 is somewhat diminished by the man-made utility poles and overhead powerlines, the Project would significantly alter the existing visual character of the site. Therefore, the existing visual character and quality of views of the site from Waterman Road looking east would be considered to be substantially degraded by the Project.

View #2: Views Looking Southeast from the Waterman Road/Sheldon Road Roundabout

Similar to View #1, the foreground views currently available from View #2 would be generally preserved with the Project due to the setback from development within the Waterman Recreational Open Space. Although a portion of the midground of View #2 would be retained as open space with a pedestrian path, development associated with the proposed private clubhouse, such as parking and/or hard courts, would also be visible within the midground. The residential uses and clubhouse within the West Neighborhood would also be visible from View #2, replacing existing midground and background views of the on-site grassy field and distant trees.

Although the existing visual quality of View #2 is somewhat diminished by the man-made utility poles and overhead powerlines, the Project would significantly alter the existing visual character of the site. As such, the existing visual character and quality of views of the site and its surroundings from View #2 would be considered to be substantially degraded by the Project.

View #3: Views from Sheldon Road Looking South

As discussed above, consistent with the SPA design standards, fencing adjacent to Sheldon Road would be open view material with pilasters (every 50 feet minimum) unless a noise study determines that a solid wall is required to bring Project noise levels in compliance with interior and exterior residential noise standards in EGMC Chapter 6.32. While it is currently unknown if such fencing would be installed along the entirety of the site's frontage on Sheldon Road, or what sections, if any, would consist of solid materials, conservatively assuming that fencing would be provided along Sheldon Road adjacent to residential uses, existing foreground views would be altered. In addition, gated access roadways and residential buildings in the western portion of the site would replace existing foreground and midground views.

Similarly, development of the East Neighborhood would result in new single-unit residences and gated entries visible from View #3 that would replace most foreground, midground, and background views. The SPA development standards discussed above

would ensure that single-unit residences are adequately set back from Sheldon Road, and that landscaping is included at the gated entries and along the frontages of the proposed residences. While compliance with such standards would contribute towards obscuring views of on-site development from Sheldon Road, View #3 would still change from the existing grassland into urban development. However, it is noted that the Laguna Creek Open Space area, situated between the West and East Neighborhoods, would generally be preserved. The only proposed development within the Laguna Creek Open Space area, a pedestrian bridge crossing, would be visible in the midground and would not substantially intrude upon views of the Laguna Creek Open Space area available from View #3.

Because utility towers and overhead powerlines are visible in the background of View #3, the existing visual quality of View #3 is somewhat diminished, although to a lesser degree than View #1 and View #2. The Project would significantly alter the existing visual character of the site and, thus, the existing visual character and quality of views of the site and its surroundings from View #3 would be considered to be substantially degraded by the Project.

Conclusion

Based on the above, although development of the Project would result in minimal intrusion to the existing public foreground views from View #1 and View #2, existing midground and background views from the identified key viewpoints would be significantly altered from an undeveloped grassy field to single-unit residences and private recreational development, eliminating the majority of existing on-site views. Consequently, the Project would substantially degrade the existing visual character or quality of views of the site and its surroundings and, a ***significant*** impact could occur.

Mitigation Measure(s)

Although the Project would be required to comply with the design standards of the Summer Villas SPA, which would help to reduce the severity of the aesthetic impact of the Project, because the Project would substantially change the existing visual character of the site from an undeveloped grassy field to single-unit residences and private recreational development, feasible mitigation does not exist to reduce the above impact to a less-than-significant level. Therefore, the above potential impact would remain *significant and unavoidable*.

4.1-2 In an urbanized area, conflict with applicable zoning and other regulations governing scenic quality. Based on the analysis below, the impact is *less than significant*.

The site is zoned Agricultural Residential-Two Acre Minimum (AR-2). As discussed in Chapter 3, Project Description, of this EIR, the site would be rezoned to SPA to serve as a site-specific zoning for the area. The requested Rezone would include a text amendment to Section 23.40.020 of the EGMC to add a new SPA.

As part of the rezone to SPA, the Project would be required to adhere to the development standards set forth by an approved SPA document, which would adopt site-specific zoning and development standards and criteria for future development proposals. For example, site-specific fencing standards are established within the

SPA. Fencing would not exceed six feet in height along open space and paseos, as well as in interior and rear yards, and would not exceed three feet in height for front yards. As discussed in further detail within Chapter 3, Project Description, of this EIR, the Summer Villas SPA would contain three distinct sub-zones: Active Adult Neighborhood, Laguna Creek Open Space, and Waterman Recreational Open Space. Pursuant to EGMC Section 23.16.100(D), the SPA would also be required to include the following: a list of permitted, conditionally permitted, and prohibited uses; performance and development requirements related to yards, lot area, intensity of development on each lot, parking, landscaping, and signs; other design standards appropriate for the specific site and development; and reasons for establishment of the SPA land use zone on the particular property. The Summer Villas SPA ordinance would require review and approval by the Elk Grove City Council.

As discussed further within Chapter 3, Project Description, of this EIR, landscaped paseo lots would be designated for landscaping, drainage features, and to provide residents access to pedestrian pathways. Landscaping for senior care facilities would be subject to EGMC Chapter 23.54, and all landscaping would be required to comply with the State's Model Water Efficient Landscape Ordinance (MWELO).

When submitting individual development applications and site plans for future development within the site, future development would also undergo Design Review pursuant to EGMC Section 23.16.080. Design Review approval would ensure that future development would comply with all applicable standards governing scenic quality.

Overall, the Summer Villas SPA would be the controlling document for future development of the site in accordance with EGMC Section 23.16.100(H), in addition to the City's General Plan policies, EGMC, and Citywide Design Guidelines. Compliance with the requirements of the EGMC would ensure that the proposed SPA would include typical specifications, such as requiring future development of the site to be consistent with all applicable plans and ordinances, and to be compatible with the surrounding existing uses. The aforementioned City standards apply to all development in the City, including the Elliot Springs SPA Subdivision southwest of the site. Therefore, requiring compliance with the foregoing standards would not be a departure from how the urbanized areas of the City are currently managed.

Based on the above, future development associated with the Project would adhere to the design standards of the Summer Villas SPA zoning district, as well as other standards typical of development within the City. Therefore, the Project would not conflict with applicable zoning and other regulations governing scenic quality, and a ***less-than-significant*** impact would occur.

Mitigation Measures

None required.

4.1-3 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Based on the analysis below and due to the lack of feasible mitigation, the impact is *significant and unavoidable*.

Existing sources of light in the site vicinity include streetlights at the northwest site boundary near the roundabout, headlights from vehicles traveling on Waterman Road and Sheldon Road, and the existing neighborhoods to the north and to the west, as well as the rural residences to the east and rural estate residences to the south. As such, sources of light currently exist in the project vicinity. In addition, the interior and exterior lighting associated with the single-unit residence with accessory structures located in the northwest corner of the site represent existing sources of light.

Development of the Project would introduce additional sources of light and glare that would be similar in nature to existing sources in the area. Sources of light associated with the Project would include headlights from vehicles traveling to and from the site, street lighting, and light associated with residential uses, such as interior lighting visible through windows, and recreational uses, such as outdoor lighting associated with the clubhouse and/or sports courts. New sources of glare would occur primarily from the windshields of vehicles travelling within the site, as well as through the use of reflective building materials, such as reflective glass.

The Project would be subject to applicable City standards and policies intended to reduce impacts related to lighting and glare. For example, EGMC Chapter 23.56 and the subsections included therein address standards for lighting as part of new development, including residential lighting. The EGMC requires that lighting is constructed with shielding to reduce glare such that the source is not visible from within any adjoining residence. The chapter also establishes required levels of illumination for parking lots, driveways, pedestrian walkways, and other areas of new development, and requires limitations on light trespassing onto abutting properties. In addition, the City's Design Guidelines require that exterior building and site lighting be designed such that light is contained within the site and that a light source is shielded downward from direct off-site viewing. Furthermore, future development applications within the Summer Villas SPA would be subject to the standards for lighting established by the Summer Villas SPA document. Pursuant to EGMC Section 23.16.080, all future development would be subject to Design Review approval. Design Review approval would ensure that future development would comply with all applicable standards governing site lighting.

Overall, the Project would introduce additional sources of light and glare. Because the types of lighting and the specific locations have not yet been finalized, compliance with EGMC Chapter 23.56, the City's Design Guidelines, and the development standards of the Summer Villas SPA cannot be ensured without providing for additional enforcement mechanisms after project approval and at the time of construction. Therefore, the Project could increase the amount of light and glare generated on-site, which could be visible from the surrounding residential neighborhoods and roadways in the project vicinity, including contributions to nighttime sky glow that deteriorate the "dark sky" setting of the site and surrounding environs.

Based on the above, the Project could be considered to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area, and a ***significant*** impact could occur.

Mitigation Measure(s)

The following mitigation measure would require preparation and submittal of lighting and photometric plans to ensure that new lighting associated with the Project would not trespass onto surrounding properties. However, the required plans would not be able to adequately address the potential for future homeowners to install individual lights that could conflict with the City's standards, nor the potential effect of the proposed residences being clustered in higher densities than the surrounding rural residential area. Due to the uncertainties related to future residential lighting and the ultimate level of illumination in the area, feasible mitigation does not exist to reduce the above impact to a less-than-significant level. Therefore, the above potential impact would remain *significant and unavoidable.*

4.1-3 *In conjunction with submittal of the first tentative subdivision map for the Project, the developer shall submit a lighting plan and photometric plan for review and approval by the City of Elk Grove Community Development Department. The lighting and photometric plans shall address limiting light trespass and glare on the site to 0.1 footcandle through the use of shielding and directional lighting methods, which may include, but is not limited to, fixture location and height. The lighting and photometric plans shall comply with Elk Grove Municipal Code (EGMC) Chapter 23.56 and the applicable standards of the Summer Villas SPA.*

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Some types of impacts to aesthetic resources are localized and not cumulative in nature. For example, the creation of glare or shadows at one location is not impacted by glare or shadows created at another location. Rather these effects are independent, and the determination as to whether they are adverse is specific to the project and location where they are created. Projects that block a view or affect the visual quality of a site also have localized aesthetic impacts. The impact occurs specific to a site or area and remains independent from another project elsewhere that may block a view or degrade the visual environment of a specific site.

Two types of aesthetic impacts may be additive in nature and, thus, considered cumulative: night sky lighting and overall changes to a large area's visual environment as the result of increasing urbanization. As development in one area increases and possibly expands over time to meet or connect with development in an adjoining, less-populated area, the new development may contribute to larger and/or more intense nighttime glow in the viewshed.

Similarly, as development in one area changes from rural to urban, and this pattern continues to occur throughout the undeveloped areas of a jurisdiction, the changes in visual character may become additive and cumulatively considerable. The Project's incremental contribution to night sky lighting and changes in visual character are addressed below.

The cumulative setting for impacts related to aesthetics encompasses development of the Project in conjunction with buildout of the Elk Grove General Plan planning area, as well as a list of present and probable future projects. For more details regarding the cumulative setting, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.1-4 Long-term changes in visual character associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove. Based on the analysis below, the project's incremental contribution to the significant cumulative impact is *significant and unavoidable*.

The geographic setting for analysis of long-term cumulative changes in visual character associated with the Project is the City of Elk Grove General Plan planning area, as development facilitated by the City's General Plan within the vicinity of the site has the potential to affect similar views analyzed in this EIR for the Project.

As discussed previously, the immediate vicinity of the site is mostly characterized by residential neighborhoods, including single-unit residences to the west, north, and southwest of the site. In addition, a nonprofit horse rescue facility is located to the south, and undeveloped land and rural residences are located to the east and west of the site. Future buildout of the undeveloped land would also include residential uses and residences, albeit at a reduced density than the Project.

The City's General Plan EIR evaluated long-term changes in visual character associated with cumulative development under Impact 5.1.4. As discussed therein, the General Plan EIR concluded that, although individual development projects would incorporate mitigation to minimize project-specific visual impacts, the net result would be a general conversion of areas with an open, rural character to a more urban and developed character. Therefore, the City's General Plan EIR concluded that changes in character associated with such development would result in a significant cumulative impact. Compliance with the City's Design Guidelines, supplemental guidelines, and General Plan policies would ensure the visual character of future projects is consistent with the City's applicable standards; however, even with implementation of such guidelines and policies, future development would substantially change the visual character of the City's planning area. Therefore, feasible mitigation was not available to reduce the cumulative impact identified by the City's General Plan EIR, and such impacts were determined to be significant and unavoidable.

The site is currently designated as Rural Residential (RR) by the General Plan and, thus, the site has been anticipated for rural residential development. As such, the conversion of the existing on-site grassy field to rural residential uses has been anticipated and analyzed in the General Plan EIR. Because the Project would include a General Plan/Rural Area Community Plan Amendment to change the General Plan and Rural Area Community Plan land use designations of the site from RR to Low Density Residential (LDR) and Parks and Open Space (P/OS), as well as remove the Rural Area Community Plan designation, the Project would result in residential development at a higher density than what was anticipated for the site in the General Plan EIR. Due to the increase in residential density, the cumulatively considerable and significant and unavoidable impact related to cumulative visual resource impacts

identified in the General Plan EIR could be exacerbated by the Project. However, the Project would be required to demonstrate consistency with applicable policies and regulations governing scenic quality, including General Plan Policies and standards established in the EGMC, as well as Summer Villas SPA development standards meant to ensure the Project's individual impacts are minimized. As such, the Project's individual contribution to the cumulative impact would be less than cumulatively considerable.

Nonetheless, as concluded under Impact 4.1-1, development of the Project would substantially alter the existing visual character and quality of the site through conversion of the existing predominantly grasslands to a residential development. In conjunction with other cumulative development within the City, the Project would contribute towards significantly altering the visual character of the area. Therefore, the Project's incremental contribution to such impacts would be ***significant***.

Mitigation Measure(s)

Because feasible mitigation does not exist to avoid substantial degradation of the existing visual character and quality of the site and surrounding area associated with the Project in combination with cumulative development, the impact would remain *significant and unavoidable*.

4.1-5 Creation of new sources of light or glare associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove. Based on the analysis below and with implementation of mitigation, the project's incremental contribution to the significant cumulative impact is *less than cumulatively considerable*.

Cumulative effects of lighting are visible over a wide area, due to the potential for lighting from a number of projects to create sky glow. Cumulative development throughout the City's planning area, particularly conversion of rural or currently undeveloped sites to urban uses, would increase the sources of light and glare, which would have the potential to contribute to sky glow in the area and result in a significant cumulative impact. Such sources of light would be typical of existing low-density residential developments in the greater project vicinity, such as the neighborhoods to the southwest of the site.

The City's General Plan EIR evaluated long-term changes in visual character associated with cumulative development under Impact 5.1.5. As discussed therein, the continued urbanization of the surrounding region would introduce substantial sources of light and glare. Overall, the General Plan EIR concluded that such development would increase skyglow and other nighttime illumination and a significant cumulative impact would occur. The General Plan EIR further concluded that the adverse effects associated with adding new sources of light and glare to areas that currently have little to zero on-site lighting cannot be mitigated to less than significant. Therefore, the impact was identified as cumulatively considerable and significant and unavoidable.

However, cumulative development within the General Plan planning area, including future projects within the vicinity, would be subject to existing regulations and guidelines related to light and glare. For example, all projects proposed for construction within the City's General Plan planning area are required to comply with the City's design guidelines and with the lighting standards established within EGMC Chapter 23.56, which would reduce light and glare impacts. Additionally, as discussed under Impact 4.1-3, to ensure the Project complies with all applicable regulations, Mitigation Measure 4.1-3 requires the developer to prepare a lighting plan, which would be subject to review and approval by the City of Elk Grove Community Development Department and would address limiting light trespass and glare on the site through the use of shielding and directional lighting methods.

Based on the above, development of the Project, in conjunction with buildout of the General Plan planning area and present and probable future projects, would be subject to the applicable requirements of the EGMC Chapter 23.56. However, without implementation of Mitigation Measure 4.1-3, the Project could create a new source of substantial light or glare that would adversely affect day or nighttime views in the cumulative setting, and the contribution of the Project to the cumulative significant impact could be ***cumulatively considerable***.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less than cumulatively considerable* level.

4.1-5 Implement Mitigation Measure 4.1-3.

4.2 Air Quality, Greenhouse Gas Emissions, and Energy

4.2 AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY

4.2.1 INTRODUCTION

The Air Quality, Greenhouse Gas Emissions, and Energy chapter of the EIR describes the potential impacts of the Project on local and regional air quality emissions, potential impacts related to greenhouse gas (GHG) emissions and climate change, and potential impacts related to energy. The chapter includes a discussion of the existing air quality, GHG, and energy setting, the existing regulatory setting, as well as potential air quality, GHG, and energy impacts resulting from implementation of the Project. In addition, the chapter includes mitigation measures warranted to reduce or eliminate any identified significant impacts. This chapter is based on the Elk Grove General Plan[1] and associated EIR,[2] the City of Elk Grove Climate Action Plan (CAP),[3] the Sacramento Metropolitan Air Quality Management District (SMAQMD) CEQA Guide,[4] and technical analysis performed by Raney Planning and Management, Inc. (see Appendix C).

4.2.2 EXISTING ENVIRONMENTAL SETTING

The following information provides an overview of the existing environmental setting in relation to air quality within the Project area. Air basin characteristics, ambient air quality standards (AAQS), attainment status and regional air quality plans, local air quality monitoring, odors, sensitive receptors, information related to climate change and GHG's, and energy are discussed.

Air Basin Characteristics

The site is located in the City of Elk Grove, which falls within the Sacramento Valley Air Basin (SVAB) and is within the jurisdictional boundaries of the SMAQMD. The SVAB is in the northern half of California's Great Valley and is bordered on three sides by mountain ranges. Air flows into the SVAB through the Carquinez Strait, moves across the Delta and carries pollutants from the heavily populated San Francisco Bay Area into the SVAB. The prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north.

Most precipitation in the SVAB results from air masses moving in from the Pacific Ocean during the winter months. Storms usually move through the area from the west or northwest. During the winter rainy season (November through February) over half the total annual precipitation falls while the average winter temperature is a moderate 49 degrees Fahrenheit. During the summer, daytime temperatures can exceed 100 degrees Fahrenheit. Dense fog occurs mostly in mid-winter and rarely in the summer. Daytime temperatures from April through October average between 60 and 80 degrees Fahrenheit with low humidity. The inland location and surrounding mountains shelter the valley from much of the ocean breeze that keeps the coastal regions moderate in temperature. The only breech in the mountain barrier is the Carquinez Strait, which exposes the midsection of the valley to the coastal air mass.

1 City of Elk Grove. *General Plan*. Adopted February 2019. Amended December 13, 2023.
2 City of Elk Grove. *General Plan Update Draft Environmental Impact Report*. February 2019.
3 City of Elk Grove. *Climate Action Plan.* Adopted December 2019; Amended December 2022, December 2024.
4 Sacramento Metropolitan Air Quality Management District. *CEQA Guide*. April 2020.

Ambient Air Quality Standards

Both the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established AAQS for common pollutants. The federal standards are divided into primary standards, which are designed to protect the public health, and secondary standards, which are designed to protect the public welfare. The AAQS for each contaminant represent safe levels that avoid specific adverse health effects. Pollutants for which AAQS have been established are called "criteria" pollutants. Table 4.2-1 identifies the major pollutants, characteristics, health effects and typical sources. The national and California AAQS (NAAQS and CAAQS, respectively) are summarized in Table 4.2-2. The NAAQS and CAAQS were developed independently with differing purposes and methods. As a result, the federal and State standards differ in some cases. In general, the State of California standards are more stringent than the federal standards, particularly for ozone and particulate matter (PM).

A description of each criteria pollutant and its potential health effects is provided below.

Ozone

Ozone is a reactive gas consisting of three oxygen atoms. In the troposphere, ozone is a product of the photochemical process involving the sun's energy, and is a secondary pollutant formed as a result of a complex chemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_X) emissions in the presence of sunlight. As such, unlike other pollutants, ozone is not released directly into the atmosphere from any sources. In the stratosphere, ozone exists naturally and shields Earth from harmful incoming ultraviolet radiation. The primary source of ozone precursors is mobile sources, including cars, trucks, buses, construction equipment, and agricultural equipment. Ground-level ozone reaches the highest level during the afternoon and early evening hours. High levels occur most often during the summer months. Ground-level ozone is a strong irritant that could cause constriction of the airways, forcing the respiratory system to work harder in order to provide oxygen. Ozone at the Earth's surface causes numerous adverse health effects and is a major component of smog. High concentrations of ground level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments.

Reactive Organic Gas

Reactive Organic Gas (ROG) refers to several reactive chemical gases composed of hydrocarbon compounds typically found in paints and solvents that contributes to the formation of smog and ozone by involvement in atmospheric chemical reactions. A separate health standard does not exist for ROG. However, some compounds that make up ROG are toxic, such as the carcinogen benzene.

Oxides of Nitrogen

Oxides of Nitrogen (NO_X)are a family of gaseous nitrogen compounds and are precursors to the formation of ozone and particulate matter. The major component of NO_X, nitrogen dioxide (NO_2), is a reddish-brown gas that discolors the air and is toxic at high concentrations. NO_X results primarily from the combustion of fossil fuels under high temperature and pressure. On-road and off-road motor vehicles and fuel combustion are the major sources of NO_X. NO_X reacts with ROG to form smog, which could result in adverse impacts to human health, damage the environment, and cause poor visibility. Additionally, NO_X emissions are a major component of acid rain. Health effects related to NO_X include lung irritation and lung damage and can cause increased risk of acute and chronic respiratory disease.

Table 4.2-1
Summary of Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive gas produced by the photochemical process involving a chemical reaction between the sun's energy and other pollutant emissions. Often called photochemical smog.	• Eye irritation • Wheezing, chest pain, dry throat, headache, or nausea • Aggravated respiratory disease such as emphysema, bronchitis, and asthma	Combustion sources such as factories, automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	An odorless, colorless, highly toxic gas that is formed by the incomplete combustion of fuels.	• Impairment of oxygen transport in the bloodstream • Impaired vision, reduced alertness, chest pain, and headaches • Can be fatal in the case of very high concentrations	Automobile exhaust, combustion of fuels, and combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	A reddish-brown gas that discolors the air and is formed during combustion of fossil fuels under high temperature and pressure.	• Lung irrigation and damage • Increased risk of acute and chronic respiratory disease	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Dioxide	A colorless, irritating gas with a rotten egg odor formed by combustion of sulfur-containing fossil fuels.	• Aggravation of chronic obstruction lung disease • Increased risk of acute and chronic respiratory disease	Diesel vehicle exhaust, oil-powered power plants, and industrial processes.
Particulate Matter (PM_{10} and $PM_{2.5}$)	A complex mixture of extremely small particles and liquid droplets that can easily pass through the throat and nose and enter the lungs.	• Aggravation of chronic respiratory disease • Heart and lung disease • Coughing • Bronchitis • Chronic respiratory disease in children • Irregular heartbeat • Nonfatal heart attacks	Combustion sources such as automobiles, power generation, industrial processes, and wood burning. Also from unpaved roads, farming activities, and fugitive windblown dust.
Lead	A metal found naturally in the environment as well as in manufactured products.	• Loss of appetite, weakness, apathy, and miscarriage • Lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract	Industrial sources and combustion of leaded aviation gasoline.

Sources:

- ***California Air Resources Board. California Ambient Air Quality Standards (CAAQS). Available at: http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm. Accessed May 2025.***
- ***Sacramento Metropolitan, El Dorado, Feather River, Placer, and Yolo-Solano Air Districts: Sacramento Region Spare the Air. Air Quality Information for the Sacramento Region. Available at: https://sparetheair.com/health-effects/. Accessed May 2025.***
- ***California Air Resources Board. Glossary of Air Pollution Terms. Available at: http://www.arb.ca.gov/html/gloss.htm. Accessed May 2025.***

Table 4.2-2
Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone	1 Hour	0.09 ppm	-	Same as primary
	8 Hour	0.070 ppm	0.070 ppm	
Carbon Monoxide	8 Hour	9 ppm	9 ppm	-
	1 Hour	20 ppm	35 ppm	
Nitrogen Dioxide	Annual Mean	0.030 ppm	53 ppb	Same as primary
	1 Hour	0.18 ppm	100 ppb	-
Sulfur Dioxide	24 Hour	0.04 ppm	-	-
	3 Hour	-	-	0.5 ppm
	1 Hour	0.25 ppm	75 ppb	-
Respirable Particulate Matter (PM_{10})	Annual Mean	20 ug/m^3	-	Same as primary
	24 Hour	50 ug/m^3	150 ug/m^3	
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	12 ug/m^3	9 ug/m^3	15 ug/m^3
	24 Hour	-	35 ug/m^3	Same as primary
Lead	30 Day Average	1.5 ug/m^3	-	-
	Calendar Quarter	-	1.5 ug/m^3	Same as primary
Sulfates	24 Hour	25 ug/m^3	-	-
Hydrogen Sulfide	1 Hour	0.03 ppm	-	-
Vinyl Chloride	24 Hour	0.010 ppm	-	-
Visibility Reducing Particles	8 Hour	see note below	-	-

ppm = parts per million
ppb = parts per billion
µg/m^3 = micrograms per cubic meter

Note: Statewide Visibility Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Source: CARB. Ambient Air Quality Standards. July 16, 2024. Available at: https://ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf. Accessed June 2025.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, poisonous gas produced by incomplete burning of carbon-based fuels such as gasoline, oil, and wood. When CO enters the body, the CO combines with chemicals in the body, which prevents blood from carrying oxygen to cells, tissues, and organs. Symptoms of exposure to CO can include problems with vision, reduced alertness, and general reduction in mental and physical functions. Exposure to CO can result in chest pain, headaches, reduced mental alertness, and death at high concentrations.

Sulfur Dioxide

Sulfur Dioxide (SO_2) is a colorless, irritating gas with a rotten egg odor formed primarily by the combustion of sulfur-containing fossil fuels from mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Similar to airborne NO_X, suspended sulfur oxide

particles contribute to poor visibility. The sulfur oxide particles are also a component of particulate matter, discussed below.

Particulate Matter

Particulate matter, also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health impacts. The USEPA is concerned about particles that are 10 micrometers in diameter or smaller (PM_{10}) because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, the particles could affect the heart and lungs and cause serious health effects. USEPA groups particle pollution into three categories based on their size and where they are deposited:

- "Inhalable coarse particles ($PM_{2.5-10}$)," which are found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. $PM_{2.5-10}$ is deposited in the thoracic region of the lungs.
- "Fine particles ($PM_{2.5}$)," which are found in smoke and haze, are 2.5 micrometers in diameter and smaller. $PM_{2.5}$ particles could be directly emitted from sources such as forest fires, or could form when gases emitted from power plants, industries, and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.
- "Ultrafine particles (UFP)," are very, very small particles (less than 0.1 micrometers in diameter) largely resulting from the combustion of fossil fuels, meat, wood, and other hydrocarbons. While UFP mass is a small portion of $PM_{2.5}$, their high surface area, deep lung penetration, and transfer into the bloodstream could result in disproportionate health impacts relative to their mass. UFP is not currently regulated separately, but is analyzed as part of $PM_{2.5}$.

PM_{10}, $PM_{2.5}$, and UFP include primary pollutants, which are emitted directly to the atmosphere and secondary pollutants, which are formed in the atmosphere by chemical reactions among precursors. Generally speaking, $PM_{2.5}$ and UFP are emitted by combustion sources like vehicles, power generation, industrial processes, and wood burning, while PM_{10} sources include the same sources plus roads and farming activities. Fugitive windblown dust and other area sources also represent a source of airborne dust. Long-term PM pollution, especially fine particles, could result in significant health problems including, but not limited to, the following: increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing; decreased lung function; aggravated asthma; development of chronic respiratory disease in children; development of chronic bronchitis or obstructive lung disease; irregular heartbeat; heart attacks; and increased blood pressure.

Lead

Lead is a relatively soft and chemically resistant metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, and, thus, essentially persists forever. Lead forms compounds with both organic and inorganic substances. As an air pollutant, lead is present in small particles. Sources of lead emissions in California include a variety of industrial activities. Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels. The use of leaded fuel has been mostly phased out, with the result that ambient concentrations of lead have dropped dramatically. However, because lead was emitted in large amounts from vehicles when leaded gasoline was

used, lead is present in many soils (especially urban soils) as a result of airborne dispersion and could become re-suspended into the air.

Because lead is only slowly excreted by the human body, exposures to small amounts of lead from a variety of sources could accumulate to harmful levels. Effects from inhalation of lead above the level of the ambient air quality standard may include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms could include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children. Lead also causes cancer.

Sulfates

Sulfates are the fully oxidized ionic form of sulfur and are colorless gases. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. The sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The sulfates standard established by CARB is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide

Hydrogen Sulfide (H_2S) is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. Hydrogen sulfide is extremely hazardous in high concentrations, especially in enclosed spaces (800 parts per million [ppm] can cause death).

Vinyl Chloride

Vinyl Chloride (C_2H_3Cl, also known as VCM) is a colorless gas that does not occur naturally, but is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride (PVC) which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

Visibility Reducing Particles

Visibility Reducing Particles are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. The standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are also a category of environmental concern. TACs are present in many types of emissions with varying degrees of toxicity. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Common stationary sources of TACs include gasoline stations,

dry cleaners, and diesel backup generators, which are subject to SMAQMD stationary source permit requirements. The other, often more significant, common source type is on-road motor vehicles, such as cars and trucks, on freeways and roads, and off-road sources such as construction equipment, ships, and trains.

Fossil fueled combustion engines, including those used in cars, trucks, and some pieces of construction equipment, release at least 40 different TACs. In terms of health risks, the most volatile contaminants are diesel particulate matter (DPM), benzene, formaldehyde, 1,3-butadiene, toluene, xylenes, and acetaldehyde. Gasoline vapors contain several TACs, including benzene, toluene, and xylenes. Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust, DPM, is composed of carbon particles and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of such chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and NO_X. Due to the published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects, the CARB has identified DPM from diesel-fueled engines as a TAC. Although a variety of TACs are emitted by fossil fueled combustion engines, the cancer risk due to DPM exposure represents a more significant risk than the other TACs discussed above.[5]

More than 90 percent of DPM is less than one micrometer in diameter, and, thus, DPM is a subset of $PM_{2.5}$. As a California statewide average, DPM comprises about eight percent of $PM_{2.5}$ in outdoor air, although DPM levels vary regionally due to the non-uniform distribution of sources throughout the State. Most major sources of diesel emissions, such as ships, trains, and trucks, operate in and around ports, rail yards, and heavily-traveled roadways. Such areas are often located near highly populated areas. Thus, elevated DPM levels are mainly an urban problem, with large numbers of people exposed to higher DPM concentrations, resulting in greater health consequences compared to rural areas.

Due to the high levels of diesel activity, high volume freeways, stationary diesel engines, rail yards and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Construction-related activities also have the potential to generate concentrations of DPM from on-road haul trucks and off-road equipment exhaust emissions.

The size of diesel particulates that are of the greatest health concern are fine particles (i.e., $PM_{2.5}$) and UFPs. UFPs have a small diameter (on the order of 0.1 micrometers).[6] The small diameter of UFPs imparts the particulates with unique attributes, such as high surface areas and the ability to penetrate deeply into lungs. Once UFPs have been deposited in lungs, the small diameter allows the UFPs to be transferred to the bloodstream. The high surface area of the UFPs also allows for a greater adsorption of other chemicals, which are transported along with the UFPs into the bloodstream of the inhaler, where the chemicals can eventually reach critical organs.[7] The penetration capability of UFPs may contribute to adverse health effects related to heart, lung, and other organ health.[8] UFPs are a subset of DPM and activities that create large amounts of DPM, such as the operations involving heavy diesel-powered engines, also release UFPs.

5 California Air Resources Board. *Reducing Toxic Air Pollutants in California's Communities*. February 6, 2002.
6 South Coast Air Quality Management District. *Final 2012 Air Quality Management Plan*. December 2012.
7 Health Effects Institute. *Understanding the Health Effects of Ambient Ultrafine Particles*. January 2013.
8 South Coast Air Quality Management District. *Final 2012 Air Quality Management Plan*. December 2012.

Health risks from TACs are a function of both the concentration of emissions and the duration of exposure, which typically are associated with long-term exposure and the associated risk of contracting cancer. Health effects of exposure to TACs other than cancer include birth defects, neurological damage, and death. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to criteria air pollutants that have established AAQS. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an AAQS or emission-based threshold.

Naturally Occurring Asbestos

Another concern related to air quality is naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs). Because asbestos is a known carcinogen, NOA is considered a TAC. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock; construction activities in ultramafic rock deposits; or rock quarrying activities where ultramafic rock is present.

According to mapping prepared by the California Geological Survey, the City of Elk Grove is not in an area likely to contain NOA.[9] Therefore, NOA is not expected to be present at the site.

Attainment Status and Regional Air Quality Plans

The Federal Clean Air Act (FCAA) and the California Clean Air Act (CCAA) require all areas of California to be classified as attainment, nonattainment, or unclassified as to their status with regard to the NAAQS and/or CAAQS. The FCAA and CCAA require that the CARB, based on air quality monitoring data, designate portions of the State where the federal or State AAQS are not met as "nonattainment areas." Because of the differences between the national and State standards, the designation of nonattainment areas is different under the federal and State legislation. The CCAA requires local air pollution control districts to prepare air quality attainment plans. These plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods or, provide for adoption of "all feasible measures on an expeditious schedule."

As presented in Table 4.2-3, under the CCAA, Sacramento County has been designated nonattainment for the State and federal one-hour ozone, State and federal eight-hour ozone, State PM_{10}, and federal $PM_{2.5}$ standards. The County is designated attainment or unclassified for all other AAQS. Due to the nonattainment designations, the SMAQMD, along with the other air districts in the SVAB region, is required to develop plans to attain the federal and State standards for ozone and particulate matter. The air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control measures have worked, and show how air pollution would be reduced. In addition, the plans include the estimated future levels of pollution to ensure that the area would meet air quality goals. Each of the attainment plans currently in effect are discussed in further detail in the Regulatory Context section of this chapter.

[9] California Department of Conservation, Division of Mines and Geology. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos*. August 2000.

Table 4.2-3
Sacramento County Attainment Status Designations

Pollutant	Averaging Time	California Standards	Federal Standards
Ozone	1 Hour	**Nonattainment**	**Nonattainment**
	8 Hour	**Nonattainment**	**Nonattainment**
Carbon Monoxide	8 Hour	Attainment	Attainment
	1 Hour	Attainment	Attainment
Nitrogen Dioxide	Annual Mean	Attainment	Unclassifiable/ Attainment
	1 Hour	Attainment	Unclassifiable/ Attainment
Sulfur Dioxide	24 Hour	Attainment	-
	1 Hour	Attainment	Attainment
Respirable Particulate Matter (PM_{10})	Annual Mean	**Nonattainment**	-
	24 Hour	**Nonattainment**	Attainment
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	Attainment	Attainment
	24 Hour	-	**Nonattainment**
Lead	Rolling 3-Month Average	Attainment	Attainment
Sulfates	24 Hour	Attainment	-

Source: Sacramento Metropolitan Air Quality Management District. Air Quality Pollutants and Standards. Available at: http://www.airquality.org/air-quality-health/air-quality-pollutants-and-standards. Accessed June 2025.

Local Air Quality Monitoring

Air quality is monitored by CARB at various locations to determine which air quality standards are being violated, and to direct emission reduction efforts, such as developing attainment plans and rules, incentive programs, etc. The nearest local air quality monitoring station to the site is the Sloughhouse station, located at 7520 Sloughhouse Road in Elk Grove, CA, approximately seven miles northeast of the site. Data for $PM_{2.5}$ and PM_{10} was not available for the Sloughhouse monitoring site; thus, such data was obtained from the next nearest site, the Sacramento-Del Paso Manor monitoring site, located approximately 9.8 miles north of the site at 2701 Avalon Drive, in the City of Sacramento. Table 4.2-4 shows historical occurrences of pollutant levels exceeding the State and federal AAQS for the three-year period from 2021 to 2023.

Odors

While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable annoyance and distress among the public and can generate citizen complaints to local governments and air districts. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative or formulaic methodologies to determine the presence of a significant odor impact do not exist. Adverse effects of odors on residential areas and other sensitive receptors warrant the closest scrutiny; but consideration should also be given to other land use types where people congregate, such as recreational facilities, worksites, and commercial areas. The potential for an odor impact is dependent on a number of variables including the nature of the odor source, distance between a receptor and an odor source, and local meteorological conditions.

Table 4.2-4
Air Quality Data Summary (2021-2023)

Pollutant	Standard	Days Standard Was Exceeded		
		2021	2022	2023
1-Hour Ozone	State	2	1	0
	Federal	0	0	0
8-Hour Ozone	State	13	5	2
	Federal	13	5	0
24-Hour $PM_{2.5}$*	Federal	5	10	0
24-Hour PM_{10}*	State	0	0	0
	Federal	0	0	0
1-Hour Nitrogen Dioxide	State	0	0	0
	Federal	0	0	0

Source: California Air Resources Board. Aerometric Data Analysis and Management (iADAM) System. Available at http://www.arb.ca.gov/adam/welcome.html. Accessed June 2025.

Note:
* Denotes the data was not available from the closest air quality monitoring station, thus the data was obtained from the Sacramento-Del Paso Manor monitoring site, located at 2701 Avalon Drive.

One of the most important factors influencing the potential for an odor impact to occur is the distance between the odor source and receptors, also referred to as a buffer zone or setback. The greater the distance between an odor source and receptor, the less concentrated the odor emission would be when reaching the receptor.

Meteorological conditions also affect the dispersion of odor emissions, which determines the exposure concentration of odiferous compounds at receptors. The predominant wind direction in an area influences which receptors are exposed to the odiferous compounds generated by a nearby source. Receptors located upwind from a large odor source may not be affected due to the produced odiferous compounds being dispersed away from the receptors. Wind speed also influences the degree to which odor emissions are dispersed away from any area.

Odiferous compounds could be generated from a variety of source types including both construction and operational activities. Examples of common land use types that typically generate significant odor impacts include, but are not limited to wastewater treatment plants; sanitary landfills; composting/green waste facilities; recycling facilities; petroleum refineries; chemical manufacturing plants; painting/coating operations; rendering plants; and food packaging plants. The site is not located near any of the aforementioned odor-generating uses.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities. In the vicinity of the site, sensitive land uses include existing rural residences located to the north, east, southeast, and to the west, across Waterman Road.

Greenhouse Gas Emissions

GHGs are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. Some GHGs occur naturally and are emitted into the atmosphere through both natural processes and human activities. Other GHGs are created and emitted solely through human activities. The principal GHGs that enter the atmosphere due to human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated carbons. Other common GHGs include water vapor, ozone, and aerosols. The increase in atmospheric concentrations of GHG due to human activities has resulted in more heat being held within the atmosphere, which is the accepted explanation for global climate change.

The primary GHG emitted by human activities is CO_2, with the next largest components being CH_4 and N_2O. A wide variety of human activities result in the emission of CO_2. Some of the largest sources of CO_2 include the burning of fossil fuels for transportation, electricity production, and industrial processes, including plastic and cement production. The primary sources of CH_4 emissions include domestic livestock sources, decomposition of wastes in landfills, releases from natural gas systems, coal mine seepage, and manure management. The main human activities producing N_2O are agricultural soil management, fuel combustion in motor vehicles, nitric acid production, manure management, and stationary fuel combustion. Emissions of GHG by economic sector indicate that energy-related activities account for the majority of U.S. emissions. The transportation sector is the largest single-source of GHG emissions, and electricity production is the second largest source, followed by industrial activities. The agricultural, commercial, and residential sectors account for the remainder of GHG emission sources.[10]

Emissions of GHG are partially offset by uptake of carbon and sequestration in trees, agricultural soils, landfilled yard trimmings and food scraps, and absorption of CO_2 by the earth's oceans. Additional emission reduction measures for GHG could include, but are not limited to, compliance with local, State, or federal plans or strategies for GHG reductions, on-site and off-site mitigation, and project design features. Attainment concentration standards for GHGs have not been established by the federal or State government.

Global Warming Potential

Global Warming Potential (GWP) is one type of simplified index (based upon radiative properties) that can be used to estimate the potential future impacts of emissions of various gases. According to the USEPA, the GWP of a gas, or aerosol, to trap heat in the atmosphere is the "cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas." The reference gas for comparison is CO_2. GWP is based on a number of factors, including the heat-absorbing ability of each gas relative to that of CO_2, as well as the decay rate of each gas relative to that of CO_2. Each gas's GWP is determined by comparing the radiative forcing associated with emissions of that gas versus the radiative forcing associated with emissions of the same mass of CO_2, for which the GWP is set at one. Methane gas, for example, is estimated by the USEPA to have a comparative global warming potential 25 times greater than that of CO_2, as shown in Table 4.2-5.

As shown in the table below, at the extreme end of the scale, sulfur hexafluoride is estimated to have a comparative GWP 22,800 times that of CO_2. The "specified time horizon" is related to the atmospheric lifetimes of such GHGs, which are estimated by the USEPA to vary from 50 to 200 years for CO_2, to 50,000 years for tetrafluoromethane. Longer atmospheric lifetimes allow GHG

[10] U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions.* Available at: https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions. Accessed June 2025.

to buildup in the atmosphere; therefore, longer lifetimes correlate with the GWP of a gas. The common indicator for GHG is expressed in terms of metric tons of CO_2 equivalents ($MTCO_2e$), which is calculated based on the GWP for each pollutant.

Table 4.2-5
Global Warming Potentials and Atmospheric Lifetimes of Select GHGs

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO_2)	See footnote[1]	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	298
Hydrofluorocarbon (HFC)-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

[1] For a given amount of carbon dioxide emitted, some fraction of the atmospheric increase in concentration is quickly absorbed by the oceans and terrestrial vegetation, some fraction of the atmospheric increase will only slowly decrease over a number of years, and a small portion of the increase will remain for many centuries or more.

Source: USEPA. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022 [Table 1-2]. April 11, 2024.

Effects of Global Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The Intergovernmental Panel on Climate Change's (IPCC) Climate Change 2021: The Physical Science Basis report indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia.[11] Signs that global climate change has occurred include:

- Warming of the atmosphere and ocean;
- Diminished amounts of snow and ice;
- Rising sea levels; and
- Ocean acidification.

Although climate change is driven by global atmospheric conditions, climate change impacts can be local. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment (OEHHA) identified various indicators of climate change in California, which are scientifically based measurements that track trends in various aspects of climate change. Many indicators reveal discernable evidence that climate change is occurring in California and is having significant, measurable impacts in the State. Changes in the State's climate have been observed, including:

[11] Intergovernmental Panel on Climate Change. *Climate Change 2021: The Physical Science Basis Summary for Policymakers*. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf. Accessed June 2025.

- An increase in annual average air temperature with record warmth in recent years;
- More frequent extreme heat events;
- More extreme drought;
- A decline in winter chill; and
- An increase in variability of statewide precipitation.

Warming temperatures and changing precipitation patterns have altered California's physical systems—the ocean, lakes, rivers and snowpack—upon which the State depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the State's annual water supply. Impacts of climate on physical systems have been observed, such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters. Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed, including climate change impacts on terrestrial, marine, and freshwater ecosystems. However, it should be noted that the effects of climate change are not fully understood. For example, due to a series of atmospheric rivers that occurred throughout the 2022-2023 winter season, California saw the most snow the State has seen since the record was set in the 1982-1983 winter season. The California Department of Water Resources (DWR) has noted that the snowpack in the Sierra was 205 percent of the average in February 2023,[12] 190 percent of the average for March 2023,[13] 237 percent of the average for April 2023,[14] and 254 percent of the average for May of 2023.[15]

Nonetheless, potential consequences of climate change for Elk Grove include more frequent and intense instances of several natural hazards, including, but not limited to, agricultural pests and diseases, drought, extreme heat, human health hazards, severe wind, severe storms, and wildfire. Climate change is currently affecting Elk Grove and is projected to lead to more severe conditions in the future.[16]

Energy Use in California

California is one of the highest energy demanding states within the nation. According to the U.S. Department of Energy, the State consumes approximately 303,300 gigawatt-hours (GWh) of electricity per year.[17] Activities such as heating and cooling structures, lighting, the movement of goods, agricultural production, and other facets of daily life consume a variety of energy sources. However, despite California's high rate of energy use, the State has one of the lowest per capita energy consumption levels in the U.S.

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12 California Department of Water Resources. *Second Snow Survey Reflects Boost from Atmospheric Rivers.* Available at: https://water.ca.gov/News/News-Releases/2023/Feb-23/Second-Snow-Survey-Reflects-Boost-from-Atmospheric-Rivers. Accessed June 2025.

13 California Department of Water Resources. *California's Snowpack Shows Huge Gains from Recent Storms.* Available at: https://water.ca.gov/News/News-Releases/2023/March-23/March-2023-Snow-Survey. Accessed June 2025.

14 California Department of Water Resources. *California's Snowpack is Now One of the Largest Ever, Bringing Drought Relief, Flooding Concerns.* Available at: https://water.ca.gov/News/News-Releases/2023/April-23/Snow-Survey-April-2023. Accessed June 2025.

15 California Department of Water Resources. *DWR Conducts May 1 Snow Survey to Continue to Collect Data on Spring Runoff.* Available at: https://water.ca.gov/News/News-Releases/2023/May-2023/May-2023-Snow-Survey. Accessed June 2025.

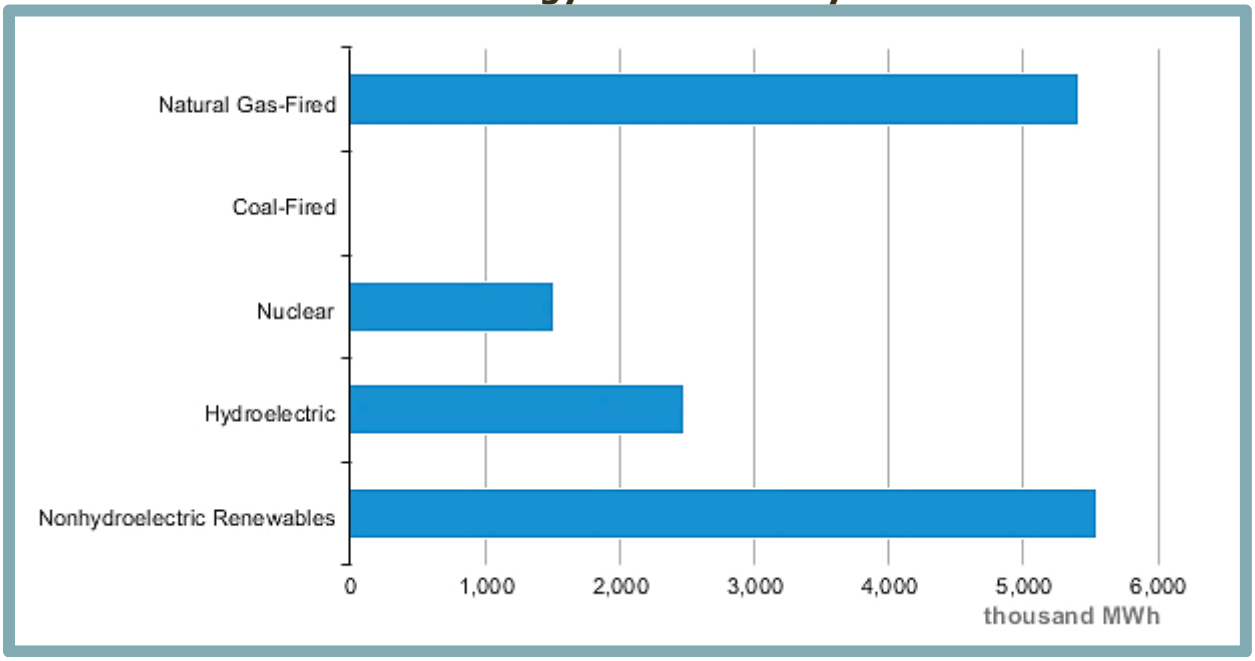
16 City of Elk Grove. *Climate Action Plan: 2019 Update.* Adopted December 2019; Amended December 2022, December 2024.

17 U.S. Department of Energy. *State of California Energy Sector Risk Profile.* March 2021.

In 2023, California was the fourth-largest electricity producer in the nation.[18] Energy within the State is provided primarily to consumers through a mix of sources including natural gas, hydroelectric, non-hydroelectric renewable sources, nuclear, coal, and petroleum. California is the nation's top producer of electricity from solar, geothermal, and biomass energy. Renewable resources, including hydroelectric power and small-scale (less than 1-megawatt [MW]), customer-sited solar photovoltaic (PV) systems, accounted for 49 percent of California's in-state electricity generation; natural gas-fired power plants fueled another 42 percent of the State's energy generation; and nuclear power supplied almost all the rest.

Figure 4.2-1 presents the sources that are used to produce energy in the State. As presented therein, energy is mostly generated from non-hydroelectric renewables (such as wind and solar), followed by natural gas combustion and hydroelectric.

Figure 4.2-1
California Energy Generation by Source



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Available at: https://www.eia.gov/state/index.php?sid=CA. Accessed June 2025.

Figure 4.2-2 presents energy consumption within California for the most recent year for which data is available (2023). As shown in the figure, transportation-related activity consumes the largest single share of energy within the State. The second largest consumer is the industrial sector.

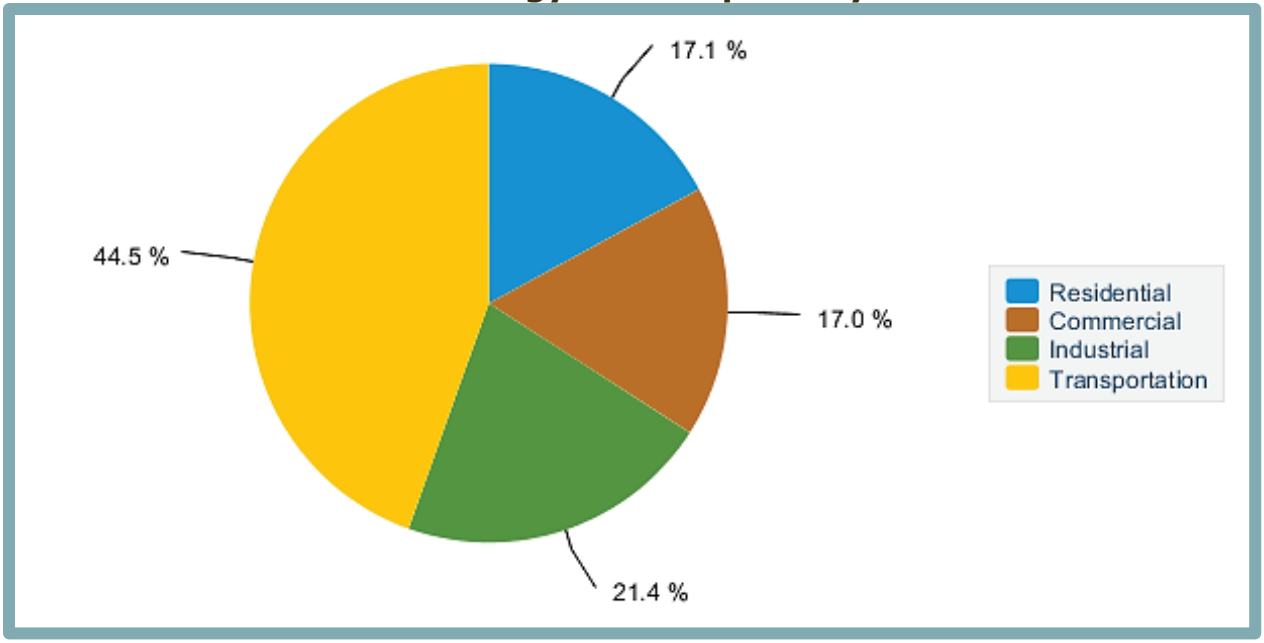
Of the total electricity supplied to the State in the year 2022, the most recent year such data is available, Sacramento County consumed approximately 11,410 GWh, which constitutes approximately 3.79 percent of the total energy consumed within the State.[19]

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[18] California Energy Information Administration. *California State Profile and Energy Estimates*. Available at: https://www.eia.gov/state/analysis.php?sid=CA#22. Accessed June 2025.

[19] California Energy Commission. *Electricity Consumption by County*. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed June 2025.

Figure 4.2-2
California Energy Consumption by Sector



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Available at: https://www.eia.gov/state/index.php?sid=CA. Accessed June 2025.

Energy Consumption at the Site

Electricity in the Project area is provided by Sacramento Municipal Utility District (SMUD) and natural gas is provided by Pacific Gas and Electric (PG&E). Currently, the site contains a single-unit residence and accessory structures in the northwest corner or the site. The remainder of the site consists of grassland vegetation, which is used for grazing. Given the nature of the site, the existing energy demand is little to null.

4.2.3 REGULATORY CONTEXT

Air quality, GHG emissions, and energy consumption are monitored and regulated through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and individually to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for regulating and improving the air quality within the project area and monitoring or reducing GHG emissions and energy consumption are discussed below.

Federal Regulations Related to Air Quality

The following discussion provides a summary of the federal regulations relevant to air quality, organized by pollutant type.

Criteria Pollutants

The FCAA, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The USEPA is responsible for implementing most aspects of the FCAA, including setting NAAQS for major air pollutants; setting hazardous air pollutant standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric ozone

protection measures, and enforcement provisions. Under the FCAA, NAAQS are established for the following criteria pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The FCAA requires the USEPA to reassess the NAAQS at least every five years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan (SIP) that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants/Toxic Air Contaminants

The 1977 FCAA amendments required the USEPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. Hazardous air pollutants include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 FCAA Amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

Federal Regulations Related to GHG Emissions

The following are the federal regulations relevant to GHG emissions.

Federal Vehicle Standards

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, USEPA, and National Highway Traffic Safety Administration (NHTSA) to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards were projected to achieve emission rates as low as 163 grams of CO_2 per mile by model year 2025 on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if the foregoing emissions level was achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021 (77 FR 62624–63200), and NHTSA intended to set standards for model years 2022 through 2025 in future rulemaking.

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program would have applied to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types of sizes of buses and work trucks. The final standards were expected to lower CO_2 emissions by approximately 1.1 billion metric tons (MT), and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.

In August 2018, the USEPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new, less-stringent standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards that were previously in place, the 2018 proposal would increase U.S. fuel consumption by approximately

0.5 million barrels per day, and would impact the global climate by 3/1000th of one degree Celsius by 2100. California and other states stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures, and committed to cooperating with other countries to implement global climate change initiatives.

On September 27, 2019, the USEPA and NHTSA published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program (84 FR 51,310), which became effective November 26, 2019. The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission-vehicle mandates in California. On March 31, 2020, the USEPA and NHTSA issued the Part Two Rule, which sets CO_2 emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. On January 20, 2021, an Executive Order (EO) was issued on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, which includes review of the Part One Rule by April 2021 and review of the Part Two Rule by July 2021. In response to the Part One Rule, in December 2021, the U.S. Department of Transportation withdrew its portions of the "SAFE I" rule. As a result, states are now allowed to issue their own GHG emissions standards and zero-emissions vehicle mandates.[20] In addition, the Part Two Rule was adopted to revise the existing national GHG emission standards for passenger cars and light trucks through model year 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and will result in avoiding more than three billion tons of GHG emissions through 2050.[21]

Federal Regulations Related to Energy

The following are the federal regulations relevant to energy.

Energy Policy and Conservation Act

The Energy Policy and Conservation Act was originally enacted in 1975 with the intention of ensuring that all vehicles sold in the U.S. meet established fuel economy standards. Following congressional establishment of the original set of fuel economy standards the U.S. Department of Transportation was tasked with establishing additional on-road vehicle standards and making revisions to standards as necessary. Compliance with established standards is based on manufacturer fleet average fuel economy, which originally applied to both passenger cars and light trucks but did not apply to heavy-duty vehicles exceeding 8,500 pounds in gross vehicle weight. The fuel economy program implemented under the Energy Policy and Conservation Act is known as the Corporate Average Fuel Economy (CAFE) Standards. Updates to the CAFE standards since original implementation have increased fuel economy requirements and begun regulation of medium- and heavy-duty vehicles.

Energy Policy Act of 2005

The Energy Policy Act of 2005 addressed energy production in the U.S. from various sources. In particular, the Energy Policy Act of 2005 included tax credits, loans, and grants for the implementation of energy systems that would reduce GHG emissions related to energy production.

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20 National Highway Traffic Safety Administration. *In Removing Major Roadblock to State Action on Emissions Standards, U.S. Department of Transportation Advances Biden-Harris Administration's Climate and Jobs Goals.* Available at: https://www.nhtsa.gov/press-releases/cafe-preemption-final-rule. Accessed June 2025.

21 U.S. Environmental Protection Agency. *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed June 2025.

State Regulations Related to Air Quality

The following discussion summarizes applicable State regulations related to air quality, organized by pollutant type. Only the most prominent and applicable California air quality-related legislation is included below. An exhaustive list and extensive details of California air quality legislation can be found at the CARB website (http://www.arb.ca.gov/html/lawsregs.htm).

Criteria Air Pollutants

The FCAA delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for ensuring implementation of the CCAA of 1988, responding to the FCAA, and regulating emissions from motor vehicles and consumer products.

CARB has established CAAQS, which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and do not violate the standards more than once each year. The CAAQS for ozone, CO, SO_2 (one-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.2-2.

Hazardous Air Pollutants/Toxic Air Contaminants

The State Air Toxics Program was established in 1983 under Assembly Bill (AB) 1807 (Tanner), and involved definition of a list of TACs. The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. The State list of TACs includes the federally-designated hazardous air pollutants. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hot spots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over five years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and, if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

CARB Air Quality and Land Use Handbook

CARB's Air Quality and Land Use Handbook: A Community Health Perspective (CARB Handbook) addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, in the vicinity of intensive air pollutant emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities (GDFs).[22] The CARB Handbook draws upon studies evaluating the health effects of traffic traveling on major interstate highways in metropolitan California centers within Los Angeles (Interstate-405 and Interstate-

[22] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.

710), the San Francisco Bay, and San Diego areas. The recommendations identified by CARB, including siting residential uses a minimum distance of 500 feet from freeways or other high-traffic roadways, are consistent with those adopted by the State of California for location of new schools. Specifically, the CARB Handbook recommends, "Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day."[23]

Importantly, the Introduction chapter of the CARB Handbook clarifies that the guidelines are strictly advisory, recognizing that: "[l]and use decisions are a local government responsibility. The Air Resources Board Handbook is advisory and these recommendations do not establish regulatory standards of any kind." CARB recognizes that there may be land use objectives as well as meteorological and other site-specific conditions that need to be considered by a governmental jurisdiction relative to the general recommended setbacks, specifically stating, "[t]hese recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues."[24]

Diesel Particulate Matter

In 2000, CARB approved a comprehensive diesel risk reduction plan to reduce diesel emissions, including DPM, from new and existing diesel-fueled vehicles and engines. The regulation was anticipated to result in an 80 percent decrease in statewide diesel health risk by 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. The aforementioned regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. Several Airborne Toxic Control Measures (ATCMs) exist that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 California Code of Regulations [CCR] 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

Heavy-Duty Diesel Truck and Bus Regulation

CARB adopted the final Heavy-Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 31, 2014, to reduce DPM and NO_X emissions from heavy-duty diesel vehicles. The rule requires nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an ATCM to limit idling of diesel-fueled commercial vehicles on December 12, 2013. The rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than five minutes at any location (13 CCR 2485).

California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person must not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have

[23] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
[24] *Ibid*.

a natural tendency to cause, injury or damage to business or property. Section 41700 also applies to sources of objectionable odors.

Heavy-Duty Vehicle Idling Emission Reduction Program

On October 20, 2005, CARB approved a regulatory measure to reduce emissions of toxics and criteria pollutants by limiting idling of new and in-use sleeper berth equipped diesel trucks.[25] The regulation established new engine and in-use truck requirements and emission performance requirements for technologies used as alternatives to idling the truck's main engine. For example, the regulation requires 2008 and newer model year heavy-duty diesel engines to be equipped with a non-programmable engine shutdown system that automatically shuts down the engine after five minutes of idling, or optionally meet a stringent NO_X emission standard. The regulation also requires operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engine when idling more than five minutes at any location within California. Emission producing alternative technologies such as diesel-fueled auxiliary power systems and fuel-fired heaters are also required to meet emission performance requirements that ensure emissions are not exceeding the emissions of a truck engine operating at idle.

In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO_X emissions from in-use (existing), off-road, heavy-duty diesel vehicles in California.[26] Such vehicles are used in construction, mining, and industrial operations. The regulation is designed to reduce harmful emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The idling limits require operators of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to less than five minutes. The idling requirements are specified in Title 13 of the CCR.

State Regulations Related to GHG Emissions

The statewide GHG emissions regulatory framework is summarized below. The following text describes EOs, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues. The following discussion does not include an exhaustive list of applicable regulations; rather, only the most prominent and applicable California legislation related to GHG emissions and climate change is included below.

State Climate Change Targets

California has taken a number of actions to address climate change, including EOs, legislation, and CARB plans and requirements, which are summarized below.

Executive Order S-3-05

EO S-3-05 (June 2005) established California's GHG emissions reduction targets and laid out responsibilities among the State agencies for implementing the EO and for reporting on progress toward the targets. The EO established the following targets:

- By 2010, reduce GHG emissions to 2000 levels;

[25] California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. October 24, 2013. Available at: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling. Accessed June 2025.

[26] California Air Resources Board. *In-Use Off-Road Diesel Vehicle Regulation*. December 10, 2014. Available at: http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm. Accessed June 2025.

- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

EO S-3-05 also directed CalEPA to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team for the State was formed, which subsequently issues yearly GHG reduction report cards to track the progress of emission reduction strategies. Each report card documents the effectiveness of measures to reduce GHG in California, presents GHG emissions from State agencies' operations, and shows reductions that have occurred in the two years prior to publication.

Assembly Bill 32

In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32 (Núñez and Pavley). The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive, multi-year program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the State's long-range climate objectives. AB 32 also required that the CARB prepare a "scoping plan" for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020. The CARB's Scoping Plan is described in further detail below.

Executive Order B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under EO S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in EO S-3-05. To facilitate achieving this goal, EO B-30-15 called for an update to the CARB's Climate Change Scoping Plan: A Framework for Change (Scoping Plan) to express the 2030 target in terms of million metric tons (MMT) of CO_2e. The CARB's Scoping Plan is discussed in further detail below. The EO also called for State agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

Senate Bill 32 and Assembly Bill 197

Senate Bill (SB) 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the State's climate policies. AB 197 also added two members of the Legislature to the Board as non-voting members; requires CARB to make available and update (at least annually through the CARB's website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

CARB's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code Section 38561[a]), and to update the Scoping Plan at least once every five years. In 2008, CARB approved the first Scoping Plan. The Scoping Plan included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary

measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives. The key elements of the Scoping Plan include the following:

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
2. Achieving a statewide renewable energy mix of 33 percent;
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions;
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
5. Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS) (17 CCR, Section 95480 et seq.); and
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15 percent from 2008 levels by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the State's GHG emission reduction priorities for the next five years and laid the groundwork to start the transition to the post-2020 goals set forth in EO S-3-05 and EO B-16-2012 (this is discussed in detail below). The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuation of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050, including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the State's 1990 emissions level using more recent GWPs identified by the IPCC, from 427 MMT CO_2e to 431 MMT CO_2e.

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40 percent below 1990 levels by 2030 to keep California on a trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050, as set forth in EO S-3-05. In summer 2016, the Legislature affirmed the importance of addressing climate change through passage of SB 32 (Pavley, Chapter 249, Statutes of 2016).

In December 2017, the Scoping Plan was once again updated. The 2017 Scoping Plan built upon the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that would serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the State's climate change priorities to 2030 and beyond. For local governments, the 2017 Scoping Plan replaced the initial Scoping Plan's 15 percent reduction goal with a recommendation to aim for a communitywide goal of no more than six $MTCO_2e$ per capita by 2030, and no more than two $MTCO_2e$ per capita by 2050, which are consistent with the State's long-term goals. The 2017 Scoping Plan recognized the benefits of local government GHG planning (e.g., through Climate Action Plans [CAPs]) and provided more information regarding tools to support those efforts. The 2017 Scoping Plan also recognized the CEQA streamlining provisions for project-level review where a legally adequate CAP exists.

When discussing project-level GHG emissions reduction actions and thresholds in the context of CEQA, the 2017 Scoping Plan stated that "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development" for project-level CEQA analysis, but also recognized that such a standard may not be appropriate or feasible for every development project. The 2017 Scoping Plan further provided that "the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."

The most recent update to the Scoping Plan, the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan Update) was adopted by the CARB in December 2022.[27] The 2022 Scoping Plan Update builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. The 2022 Scoping Plan Update, the most comprehensive and far-reaching Scoping Plan developed to date, identifies a technologically feasible and cost-effective path to achieve carbon neutrality by 2045 while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan. The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The relatively longer path assessed in the Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts to reduce GHGs and air pollution, while identifying new clean technologies and energy. Given the focus on carbon neutrality, the Scoping Plan also includes discussion for the first time of the Natural and Working Lands (NWL) sectors as both sources of emissions and carbon sinks.

The 2022 Scoping Plan Update lays out a path to achieve targets for carbon neutrality and reduce GHG emissions by 85 percent below 1990 levels by 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on NWL to reduce emissions and sequester carbon, and the capture and storage of carbon.

CARB's Regulations for the Mandatory Reporting of GHG Emissions

CARB's Regulation for the Mandatory Reporting of GHG Emissions (17 CCR 95100–95157) incorporated by reference certain requirements that the USEPA promulgated in its Final Rule on Mandatory Reporting of GHGs (40 Code of Federal Regulations [CFR] Part 98). In general,

[27] California Air Resources Board. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022.

entities subject to the Mandatory Reporting Regulation that emit more than 10,000 $MTCO_2e$ per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 $MTCO_2e$ per year threshold are required to have their GHG emission report verified by a CARB-accredited third party.

Senate Bill 1383

SB 1383 establishes specific targets for the reduction of short-lived climate pollutants (SLCPs) (40 percent below 2013 levels by 2030 for CH_4 and HFCs, and 50 percent below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, CARB adopted its SLCP Reduction Strategy in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, CH_4, and fluorinated gases.

Executive Order B-55-18/Assembly Bill 1279

EO B-55-18 (September 2018) establishes a statewide policy for California to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net-negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the State's GHG emissions. CARB intends to work with relevant State agencies to ensure that future scoping plan updates identify and recommend measures to achieve the carbon neutrality goal. On September 16, 2022, AB 1279, also known as the California Climate Crisis Act, codified the carbon neutrality goal established by EO B-55-18.

Mobile Sources

The following regulations relate to the control of GHG emissions from mobile sources. Mobile sources include both on-road vehicles and off-road equipment.

Assembly Bill 1493

AB 1493 (Pavley) (July 2002) was enacted in response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the State board to be vehicles that are primarily used for non-commercial personal transportation in the State. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards would result in a reduction of approximately 22 percent of GHG emissions compared to the emissions from the 2002 fleet, and the mid-term (2013–2016) standards would result in a reduction of approximately 30 percent.

Senate Bill 375

SB 375 (Steinberg) (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, and to update those targets every eight years. SB 375 requires the State's 18 regional metropolitan planning organizations to prepare a sustainable communities strategy as part of their Regional Transportation Plans that will achieve the GHG reduction targets set by CARB. If a metropolitan planning organization is unable to devise a sustainable communities strategy to achieve the GHG reduction target, the metropolitan planning organization must prepare an alternative planning strategy demonstrating how the GHG reduction target would be achieved

through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to California Government Code Section 65080(b)(2)(K), a sustainable communities strategy does not (1) regulate the use of land, (2) supersede the land use authority of cities and counties, or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with the sustainable community strategy. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the State-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. By 2025, implementation of the rule is anticipated to reduce emissions of smog-forming pollution from cars by 75 percent compared to the average new car sold in 2015. To reduce GHG emissions, CARB, in conjunction with the USEPA and NHTSA, adopted GHG standards for model year 2017 to 2025 vehicles; the standards were estimated to reduce GHG emissions by 34 percent by 2025. The zero-emissions vehicle program acts as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of zero-emissions vehicles and plug-in hybrid electric vehicles in the 2018 to 2025 model years.

In May 22, 2025, the U.S. House of Representatives passed three Congressional Review Act (CRA) resolutions to rescind the U.S EPA's waiver for the Advanced Clean Cars II Program and President Donald Trump signed the CRA resolutions on June 12, 2025. Subsequently, a lawsuit has been filed by the State Attorney General on June 12, 2025 against the federal government's use of the CRA to upend California's clean vehicles program.[28] As such, the future enforceability of the Advanced Clean Cars II Program is currently unknown as of date of this EIR.

Executive Order B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, California Energy Commission (CEC), California Public Utilities Commission (CPUC), and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

[28] State of California Department of Justice. *California Will Not Waver in Defending Itself from Federal Overreach: Attorney General Bonta Sues Trump Administration for Attack on California's Clean Vehicles Program*. Available at: https://oag.ca.gov/news/press-releases/california-will-not-waver-defending-itself-federal-overreach-attorney-general. Accessed June 12, 2025.

Assembly Bill 1236

AB 1236 (October 2015) (Chiu) required a city, county, or city and county to approve an application for the installation of electric-vehicle charging stations, as defined, through the issuance of specified permits unless the city or county makes specified written findings based on substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and a feasible method to satisfactorily mitigate or avoid the specific, adverse impact does not exist. The bill provided for appeal of that decision to the planning commission, as specified. AB 1236 required electric-vehicle charging stations to meet specified standards. The bill required a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that created an expedited and streamlined permitting process for electric-vehicle charging stations. The bill also required a city, county, or city and county with a population of less than 200,000 residents to adopt the ordinance by September 30, 2017.

Water

The following regulations relate to the conservation of water, which reduces GHG emissions related to electricity demands from the treatment and transportation of water.

Executive Order B-29-15

In response to a drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives subsequently became permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the State. In response to EO B-29-15, the California DWR modified and adopted a revised version of the Model Water Efficient Landscape Ordinance (MWELO) that, among other changes, significantly increases the requirements for landscape water use efficiency, and broadens the applicability of the ordinance to include new development projects with smaller landscape areas. In compliance with EO B-29-15, the City of Elk Grove has adopted a local Water Efficient Landscape Ordinance, Chapter 14.10 of the Elk Grove Municipal Code.

Solid Waste

The following regulations relate to the generation of solid waste and means to reduce GHG emissions from solid waste produced within the State.

Assembly Bill 939 and Assembly Bill 341

In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code [PRC] Sections 40000 et seq.), was passed because of the observed increase in waste stream and the decrease in landfill capacity.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that the policy goal of the State is that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery to develop strategies to achieve the State's policy goal.

Other State Actions

The following State regulations are broadly related to GHG emissions.



Senate Bill 97

SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research (OPR) (currently known as the Office of Land Use and Climate Innovation [LCI]) to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor's OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities. The advisory further recommended that the lead agency determine the significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The California Natural Resource Agency (CNRA) adopted the CEQA Guidelines amendments in December 2009, and the amended CEQA Guidelines became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis, or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider 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 (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply the lead agency's own thresholds of significance or those developed by other agencies or experts. CNRA acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions.

With respect to GHG emissions, the CEQA Guidelines state that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions (14 CCR 15064.4[a]). The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent to which 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; and (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 (14 CCR 15064.4[b]).

Executive Order S-13-08

EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs State agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009, and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014. To assess the State's vulnerability, the report summarizes key climate change impacts to the State for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of the Safeguarding

California: Implementation Action Plans followed in March 2016. In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that the State government should take to build climate change resiliency.

State Regulations Related to Energy

The primary State regulatory agencies governing energy consumption are the CEC and the CPUC.

The CEC, created by the Legislature in 1974, has seven major responsibilities: forecasting future energy needs; promoting energy efficiency and conservation by setting the State's appliance and building energy efficiency standards; supporting energy research that advances energy science and technology through research, development, and demonstration projects; developing renewable energy resources; advancing alternative and renewable transportation fuels and technologies; certifying thermal power plants 50-MW and larger; and planning for and directing State response to energy emergencies.[29]

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC is responsible for ensuring that customers have safe, reliable utility service and infrastructure at reasonable rates, regulating utility services, stimulating innovation, and promoting competitive markets.[30]

The State has adopted various regulations aimed at reducing energy consumption, increasing energy efficiency, and mandating sourcing requirements for electricity production. The following regulations are applicable to the Project.

Building Energy

The following regulations relate to energy efficiency and energy use reductions in the built environment.

California Building Standards Code, Title 24, Part 6

Title 24 of the CCR, which is known as the California Building Standards Code (CBSC), was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed periodically, and revised if necessary, by the Building Standards Commission and CEC (PRC Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (PRC Section 25402). The regulations are scrutinized and analyzed for technological and economic feasibility (PRC Section 25402[d]) and cost effectiveness (PRC Sections 25402[b][2] and [b][3]). As a result, the standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

[29] California Energy Commission. *About the California Energy Commission*. Available at: http://www.energy.ca.gov/about. Accessed June 2025.
[30] California Public Utilities Commission. *California Public Utilities Commission*. Available at: https://www.cpuc.ca.gov/about-cpuc. Accessed June 2025.

The 2022 Title 24 standards are the currently applicable building energy efficiency standards and became effective on January 1, 2023. Compliance with the 2022 Title 24 Building Energy Efficiency Standards will reduce energy use and associated GHG emissions compared to structures built in compliance with the previous 2019 Title 24 standards. Additionally, the 2025 Title 24 standards will be effective January 1, 2026.

California Green Building Standards Code, Title 24, Part 11

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and State-owned buildings and schools and hospitals. The original CALGreen standards have been updated several times. The CALGreen 2022 standards, which are the current standards, improved upon the 2019 CALGreen standards, and went into effect on January 1, 2023. The 2022 CALGreen Code focuses on four key areas in newly constructed homes and businesses:[31]

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.
- Establishing electric-ready requirements for single-unit residences to position owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar PV system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The CALGreen standards also include voluntary efficiency measures that are provided at two tiers and implemented at the discretion of local agencies and applicants. According to Section A4.602 of Appendix A4 of the CALGreen Code, CALGreen's Tier 1 standards call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 80 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar-reflective roofs.

Title 20: Public Utilities and Energy

Title 20 of the CCR requires manufacturers of appliances to meet State and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters;

[31] California Energy Commission. *Energy Commision Adopts Updated Building Standards to Improve Effeciency, Reduce Emissions From Homes and Businesses.* August 11, 2021.

gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and State standards for federally regulated appliances, State standards for federally regulated appliances, and State standards for non-federally regulated appliances.

Assembly Bill 1109

Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting to reduce electricity consumption by 50 percent for indoor residential lighting and by 25 percent for indoor commercial lighting.

Climate Change Scoping Plan

Expanding and strengthening existing energy efficiency programs as well as building and appliance standards is the key element of the Scoping Plan, as introduced above, related to building energy.

Transportation/Fuel Energy

The following regulations relate to fuel efficiency and energy use reductions in the transportation and motorized vehicle sector.

Assembly Bill 1493

In 2002 California adopted AB 1493, also known as the Pavley I standards, which required new passenger vehicles with model years 2009 to 2016 to meet more stringent fuel efficiency standards. Additional laws have extended these rules to cover vehicles from future model years.

Executive Order S-1-07

EO S-1-07, otherwise known as the LCFS, was adopted in 2009 and requires transportation fuels such as gasoline and diesel sold within the state to be less carbon intensive. These policies reduce emissions from on-road transportation and off-road equipment use in the City of Elk Grove.

Executive Order B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, CEC, CPUC, and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

Assembly Bill 1346

AB 1346 (October 2021) prohibits non-electric small off-road engines. Small off-road engines, which are used primarily in lawn and garden equipment, emit high levels of air pollutants and, in 2020, California daily criteria pollutant emissions from small off-road engines were higher than

emissions from light-duty passenger cars. Thus, by January 1, 2024, regulations shall prohibit the engine exhaust and evaporative emissions from the sale of new small off-road engines.

Senate Bill 500

SB 500 (September 2021) requires that, beginning January 1, 2030, to the extent allowed by federal law, any autonomous vehicle that is model year 2031 or later, has a gross vehicle weight rating of less than 8,501 pounds, and is equipped with Level 3, 4, or 5 automation (as defined by the International Society of Automotive Engineers) to be a zero-emission vehicle to be operated on California public roads.

Climate Change Scoping Plan

The key elements of the Scoping Plan, as introduced above, related to transportation energy include the following:

1. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; and
2. Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS (17 CCR, Section 95480 et seq.).

Renewable Energy and Energy Procurement

The following regulation relates to the source of electricity provided to consumers within the State, as well as standards related to the generation of electricity within the State.

Renewable Portfolio Standard (RPS), Senate Bill 350, and Senate Bill 100

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

Since the inception of the RPS program, the program has been extended and enhanced multiple times. In 2015, SB 350 extended the State's RPS program by requiring that publicly owned utilities procure 50 percent of their electricity from renewable energy sources by 2030. The requirements of SB 350 were expanded and intensified in 2018 through the adoption of SB 100, which mandated that all electricity generated within the State by publicly owned utilities be generated through carbon-free sources by 2045. In addition, SB 100 increased the previous renewable energy requirement for the year 2030 by 10 percent; thus, requiring that 60 percent of electricity generated by publicly owned utilities originate from renewable sources by the year 2030.

Local Regulations

The most prominent local regulations related to air quality, GHG emissions, and energy are established by the SMAQMD and the Elk Grove General Plan and are discussed in further detail below.

Sacramento Metropolitan Air Quality Management District

The SMAQMD regulates many sources of pollutants in the ambient air as well as GHG emissions, and is responsible for implementing certain programs and regulations for controlling air pollutant

and GHG emissions to improve air quality in order to attain federal and State AAQS and reduce GHG emissions in compliance with State goals.

Air Quality Attainment Plan

As a part of the SVAB federal ozone nonattainment area, the SMQAMD works with the other local air districts within the Sacramento area to develop a regional air quality management plan under the FCAA requirement. The regional air quality management plan is called the SIP which describes and demonstrates how Sacramento County, as well as the Sacramento nonattainment area, would attain the required federal ozone standard by the proposed attainment deadline. In accordance with the requirements of the FCAA, the SMQAMD, along with the other air districts in the region, prepared the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan) in December 2008. The CARB determined that the Ozone Attainment Plan met federal Clean Air Act requirements and approved the Plan on March 26, 2009 as a revision to the SIP. An update to the plan, *2017 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (2017 Ozone Attainment Plan), was prepared and adopted by CARB on November 16, 2017. An additional update to the plan was prepared and adopted by CARB on October 15, 2018, and known as the *2018 Updates to the California State Implementation Plan.*

The Ozone Attainment Plan, and subsequent updates, demonstrate how existing and new control strategies would provide the necessary future emission reductions to meet the FCAA requirements, including the NAAQS. It should be noted that in addition to strengthening the 8-hour ozone NAAQS, the USEPA also strengthened the secondary 8-hour ozone NAAQS, making the secondary standard identical to the primary standard. The SVAB remains classified as a severe nonattainment area for ozone with an attainment deadline of 2027. On October 26, 2015, the USEPA released a final implementation rule for the revised NAAQS for ozone to address the requirements for reasonable further progress, modeling and attainment demonstrations, and reasonably available control measures (RACM) and reasonably available control technology (RACT). The USEPA published designations for areas in attainment/unclassifiable for the 2015 ozone standards. The USEPA identified the entire Sacramento County as nonattainment for the 2015 ozone standards.[32]

City of Elk Grove General Plan

The following goals and policies from the City's General Plan related to air quality, GHG emissions, and energy are applicable to the Project:

Goal NR-4 Improved Air Quality.

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.

[32] U.S. Environmental Protection Agency. *Nonattainment and Unclassifiable Area Designations for the 2015 Ozone Standards*. April 30, 2018.

	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-4-8	Require that development projects incorporate best management practices during construction activities to reduce emissions of criteria pollutants.
	Policy NR-4-9	Prohibit the future siting of sensitive land uses, such as hospitals, schools, day care facilities, elderly housing, convalescent facilities, and all residential facilities within the distances recommended by the California Air Resources Board and applicable guidance from SMAQMD for air pollutant emission sources, unless adequate mitigation measures are adopted and implemented.
	Policy NR-4-10	Require new air pollution point sources, such as industrial, manufacturing, and processing facilities, to be located an adequate distance from residential areas and other sensitive land uses.
	Policy NR-4-12	Coordinate with the Sacramento Metropolitan Air Quality Management District on the review of proposed development projects, specifically projects that could conflict with any applicable air quality plans and/or the State Implementation Plan.
	Policy NR-4-13	Minimize the exposure of sensitive land uses to objectionable odors.
Goal NR-5	Reduced Greenhouse Gas Emissions that Align with Local, State, and Other Goals.	
	Policy NR-5-1	By 2030, reduce per capita emissions greenhouse gas emissions to 4.1 MTCO2e. By 2050, reduce per capita greenhouse gas emissions 1.4 MTCO2e to meet the State's 2050 greenhouse gas emissions reduction goals.
	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.
Goal NR-6	Reduced Energy Demand and Increased Renewable Sources.	
	Policy NR-6-1	Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources.

	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-6-7	Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy.
Goal SD-2	Green Building.	
	Policy SD-2-2	Support innovation and green building best management practices for all new private development.

Elk Grove Climate Action Plan

The Elk Grove CAP, adopted on February 27, 2019, is a long-term strategic document to reduce GHG emissions in Elk Grove. Reduction targets in the CAP call for reducing GHG emissions to 1990 levels by 2020 and a 40 percent reduction below 1990 levels by 2030. The City completed a community-wide GHG emissions inventory, which was used in the CAP to set reduction targets and identify appropriate strategies. The CAP builds on existing efforts of City departments, businesses, and community groups to reduce GHG emissions and identify future efforts needed to be consistent with statewide targets identified in AB 32 and SB 32.

The Elk Grove CAP provides goals and associated measures, also referred to as GHG reduction strategies, intended to ensure achievement of considerable GHG reductions in the short- and long-term and consistency with State GHG reduction targets and goals. The CAP's GHG reduction strategies are organized into four sectors (energy use, transportation, land use, and solid waste). Each strategy includes a description of the recommended actions necessary to implement the strategy, and target indicators to monitor progress.

The Elk Grove CAP serves as a Qualified GHG Reduction Strategy under Section 15183.5 of the CEQA Guidelines, simplifying development review for new projects that are consistent with the CAP. According to the CAP, individual projects that are consistent with the implementation measures of the CAP would be considered to meet the City's emissions targets and, thereby, would not conflict with implementation of the CAP or the statewide emission reduction targets of AB 32 or SB 32. Therefore, if a project is determined to meet the requirements of the GHG emission reduction implementation measures included within the CAP, then the project would result in a less-than-significant impact related to GHG emissions.

City of Elk Grove Municipal Code

The Elk Grove Municipal Code (EGMC) includes ordinances associated with air quality, GHG, and energy. The applicable ordinance(s) are discussed in further detail below.

Chapter 16:07: Electric Vehicle Charging Stations

The purpose of EGMC Chapter 16.07, Electric Vehicle Charging Stations, is to encourage the installation of electric vehicle charging stations through the removal of obstacles to permit charging stations; comply with the requirements of the California Electrical Code, the Society of Automotive Engineers, the National Electrical Manufacturers Association, and accredited testing

laboratories such as Underwriters Laboratories, and rules of the Public Utilities Commission or a municipal electric utility company regarding safety and reliability; ensure the installation of electric vehicle charging stations and associated wiring, bonding, disconnecting means and overcurrent protective devices shall meet the requirements of Article 625 and all applicable provisions of the California Electrical Code fully implement the comprehensive stormwater management program as approved by the Regional Board; reflect the electric vehicle charging requirements set forth in the 2022 California Building Standards Code, Title 24 of the CCR, as may be amended from time to time by the California Building Standards Commission.

4.2.4 IMPACTS AND MITIGATION MEASURES

The standards of significance and methodology used to analyze and determine the Project's potential project-specific impacts related to air quality and GHG emissions are described below. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Based on the recommendations of SMAQMD, and consistent with Appendix G of the CEQA Guidelines, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the Project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment 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 (including localized CO concentrations and TAC emissions);
- Result in other emissions (such as those leading to odors) affecting a substantial number of people;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources;
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Pursuant to CEQA Guidelines Section 15064.4(b)(2), the lead agency is charged with determining a threshold of significance that is applicable to the project. Further, it should be noted that pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to cumulative GHG emissions may be determined to be less than significant if the project complies with the applicable measures in a "plan for the reduction of GHG emissions" (e.g., a CAP). Under these provisions, if a project can show consistency with applicable GHG reduction measures, the level of analysis for the project required under CEQA with respect to GHG emissions can be reduced considerably (i.e., a detailed analysis of project-level GHG emissions and potential climate change impacts is not needed).

For the analysis within this EIR, the City has elected to use the SMAQMD's thresholds of significance, as well as the Elk Grove CAP, which as discussed previously, meets the criteria to be a GHG reduction strategy under CEQA Guidelines Section 15183.5(b). The analysis in this EIR uses the thresholds for criteria pollutants, localized CO, TAC emissions, and GHG emissions, as discussed below.

Criteria Pollutant Emissions and TAC Emissions

In order to evaluate criteria air pollutant emissions from development projects, SMAQMD has established significance thresholds for emissions of NO_X, ROG, PM_{10}, and $PM_{2.5}$. The significance thresholds serve as air quality standards in the evaluation of air quality impacts associated with proposed development projects. Thus, if the Project's emissions exceed the SMAQMD thresholds, the project could have a significant effect on regional air quality and attainment of federal and State AAQS. The SMAQMD's recommended thresholds of significance are listed in Table 4.2-6.

Table 4.2-6
SMAQMD Thresholds of Significance

Pollutant	Construction Threshold	Operational Threshold
NO_X	85 lbs/day	65 lbs/day
ROG	-[1]	65 lbs/day
PM_{10}	80 lbs/day and 14.6 tons/yr[2]	80 lbs/day and 14.6 tons/yr[3]
$PM_{2.5}$	82 lbs/day and 15 tons/yr[2]	82 lbs/day and 15 tons/yr[3]

1 The application of architectural coatings is typically the largest source of ROG emissions during construction activity. SMAQMD addresses construction-related emissions of ROG through the implementation of Rule 442, which regulates ROG emissions from architectural coatings. Therefore, SMAQMD has not adopted a threshold for construction-related ROG emissions.

2 The identified construction thresholds of significance for PM_{10} and $PM_{2.5}$ are only applicable when all feasible construction Best Management Practices (BMPs) are applied. The SMAQMD's construction BMPs are also known as Basic Construction Emission Control Practices. (SMAQMD, *Basic Construction Emission Control Practices (Best Management Practices),* July 2019)

3 The identified operational thresholds of significance for PM_{10} and $PM_{2.5}$ are only applicable when all feasible operational BMPs and Best Available Control Technologies (BACTs) are applied. The implementation of BACTs apply only to stationary source operational emissions. (SMAQMD, *Operational Best Management Practices for PM from Land Use Development Projects*, October 2020)

Source: SMAQMD Thresholds of Significance Table, April 2020.

The City of Elk Grove, as the CEQA Lead Agency for the Project, has formally adopted the SMAQMD's thresholds of significance. Therefore, if the Project's emissions exceed the pollutant thresholds presented in Table 4.2-6, the project could have a significant effect on air quality, the attainment of federal and State AAQS, and could conflict with or obstruct implementation of the applicable air quality plan.

With regard to other cumulative emissions, such as the cumulative emissions of criteria air pollutants, the SMAQMD directs lead agencies to use the region's existing attainment plans as a basis for analysis of cumulative emissions.

If a project would interfere with an adopted attainment plan, the project would inhibit the future attainment of AAQS, and thus result in a significant incremental contribution to cumulative emissions. As discussed throughout this document, the SMAQMD's recommended thresholds of significance for ozone precursors and PM_{10} are based on attainment plans for the region. Thus, SMAQMD concluded that if a project's ozone precursor and PM_{10} emissions would be less than

the associated thresholds, the project would not be expected to conflict with any relevant attainment plans, and would not result in a cumulatively considerable contribution to a significant cumulative impact. As a result, the operational phase cumulative-level emissions thresholds established by SMAQMD are identical to the project-level operational emissions thresholds; the operational/cumulative thresholds for criteria pollutants are presented in Table 4.2-6.

For TAC emissions, if a project would introduce a new source of TAC or a new sensitive receptor near an existing source of TAC that would not meet the CARB's minimum recommended setback, a detailed health risk assessment may be required. SMAQMD considers an increase in cancer risk levels of more than 10 in one million persons or a non-cancer hazard index greater than 1.0 to be a significant impact related to TACs.

Greenhouse Gas Emissions

The City of Elk Grove is within the jurisdictional boundaries of SMAQMD. Pursuant to SMAQMD and Section 15183.5 of the CEQA Guidelines, a project may satisfy applicable GHG analysis requirements under CEQA by demonstrating compliance with a qualified CAP.[33] However, the Project would require a General Plan Amendment and Rezone; thus, the GHG emissions resulting from the Project have not been accounted for within the City of Elk Grove's CAP. Because the Project has not been accounted for within the City's CAP, the analysis included herein has been prepared to show compliance with SMAQMD's GHG thresholds of significance.

For construction-related GHG emissions, the SMAQMD has adopted a threshold of significance of 1,100 $MTCO_2e$/yr. If construction of the Project would result in emissions that exceed 1,100 $MTCO_2e$/yr, then construction of the Project could be considered to result in a potentially significant impact and mitigation measures would be required.

For evaluating operational GHG emissions, SMAQMD has prepared a two-tiered framework of analysis for new projects. All development projects are required to implement Tier 1 measures (BMP 1 and 2). If operations of the Project would exceed 1,100 $MTCO_2e$/yr after implementation of the Tier 1 measures, then the Project is required to implement Tier 2 measures (BMP 3). The Tier 1 and Tier 2 requirements are explained in further detail below.

Tier 1

All projects within SMAQMD's jurisdiction would be required to comply with the Best Management Practices (BMPs) included in Tier 1. The proposed Tier 1 BMPs are as follows:

- ***BMP 1:*** No natural gas: Projects shall be designed and constructed without natural gas infrastructure.
- ***BMP 2:*** Electric vehicle (EV) ready: Projects shall meet the current CALGreen Tier 2 standards, except all EV Capable spaces shall instead be EV Ready.

If a project would not comply with both of the foregoing BMPs, the project would be required to include features that would achieve an equivalent level of GHG emissions reductions. For instance, a project that includes natural gas infrastructure may include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances. After implementation of BMPs 1 and 2, if a project's operational emissions would be at or below 1,100 $MTCO_2e$/yr, the operational emissions would be considered less than significant. Projects that would still result in

[33] Sacramento Metropolitan Air Quality Management District. *Climate Action Planning in the Sacramento Metropolitan Air Quality Management District*. November 2017.

emissions in excess of 1,100 $MTCO_2e$/yr after implementation of BMPs 1 and 2 are subject to review under Tier 2 of SMAQMD's thresholds.

Furthermore, projects that are below the Governor's OPR's *de minimis* vehicle miles travelled (VMT) criteria, and/or projects that emit less than 1,100 $MTCO_2e$/yr prior to implementation of BMP 1 and BMP 2 would be considered sufficiently small to screen out of further requirements, and would be assumed to result in a less-than-significant impact related to GHG emissions and climate change. The following types of projects would be considered to be below the OPR's *de minimis* VMT criteria:

- Small projects that generate or attract fewer than 110 trips per day;
- Residential and office projects in areas with low VMT (currently below threshold VMT) that incorporate similar features (i.e., density, mix of uses, transit accessibility), including affordable housing infill development; or
- Residential, retail, office, or mixed-use projects within 0.5-mile walking distance of an existing major transit stop or existing stop along a high-quality transit corridor, unless the primary use of the site is auto-oriented (e.g., car dealership, car wash, gas station).

It is noted, however, that all projects within the jurisdiction of SMAQMD are required to implement the Tier 1 measures, even if the project qualifies for screening using the OPR's *de minimis* VMT criteria.

Tier 2

The second tier of SMAQMD's thresholds includes the following BMP:

- ***BMP 3***: Residential projects shall achieve a 15 percent reduction in VMT per resident, and office projects should achieve a 15 percent reduction in VMT per worker compared to existing average VMT per capita for the county, or for the city if a more local SB 743 target has been established. VMT reductions can be achieved by many strategies, such as:
    - Locate in an area that already has low VMT due to location, transit service, etc.;
    - Adopt CAPCOA measures;
    - Adopt measures noted in Sacramento's CAAP checklist;
    - Join a Transportation Management Association;
    - Incorporate traffic calming measures;
    - Incorporate pedestrian facilities and connections to public transportation; and/or
    - Promote electric bicycle or other micro-mobility options.

Pursuant to the Tier 2 requirement, if a project can successfully achieve a 15 percent reduction in VMT or meet the requirements of an established local SB 743 target, then impacts associated with operational GHG emissions are considered less than significant.

If a project cannot incorporate any of the foregoing BMPs, other reductions or purchasing and retiring of GHG/carbon offsets can be used as an alternative method of compliance. Given that the developer demonstrates that the alternative method(s) of compliance would achieve the same reductions as those required by BMPs 1 through 3, the project can be considered to result in a less-than-significant impact related to operational GHG emissions.

In addition, although the Project was not considered within the City's CAP, the Project would be required to show consistency with the CAP Consistency Review Checklist (updated December 12, 2024) included in the City of Elk Grove CAP. Therefore, if the Project would result in construction GHG emissions in excess of 1,100 $MTCO_2e$/yr, and would not comply with the measures included in the CAP, construction of the Project would be considered to result in a cumulatively considerable contribution to global climate change. In addition, if the Project would not achieve the SMAQMD's Tier 1 GHG requirements (BMPs 1 and 2) and, if applicable, Tier 2 GHG requirements (BMP 3), and would not comply with the measures included in the CAP, operations of the Project would be considered to result in a cumulatively considerable contribution to global climate change.

Energy

Quantitative thresholds for the analysis of potential impacts related to energy consumption have not been adopted by any local, regional, or statewide entities. Consequently, potential impacts of the Project related to energy will be determined based on whether the Project would result in wasteful, inefficient, or unnecessary use of energy. In addition, the potential for the Project to conflict with or obstruct a State or local plan for renewable energy generation or energy efficiency is considered. The analysis of energy consumption includes consideration of energy demand during both construction and operations of the Project.

Method of Analysis

The analysis protocol and guidance provided by the SMAQMD's CEQA Guide, including screening criteria and pollutant thresholds of significance, was used to analyze the Project's air quality impacts.

Construction Emissions

The Project's short-term construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.28 web-based software, which is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions from land use projects. The model applies inherent default values for various land uses including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model.

The Project's construction modeling assumes the following based on project-specific data:

- Construction could begin as early as May 2027;
- Construction would potentially occur over an approximately two-year period;
- A total of approximately 3,776 square feet of existing building material would be demolished;
- Approximately 100 cubic yards (CY) of soil would be exported during grading;
- The site preparation, grading, paving, and building construction phase timing was adjusted based on project-specific information provided by the applicant;
- Based on typical construction practices, the architectural coating phase of construction was assumed to begin two weeks after the commencement of the building construction phase and occur over a similar number of days; and
- The Project would include the construction of approximately 4.54 miles of off-site water and sewer lines.

The construction modeling for the Off-Site Roundabout Improvements assumed the following:

- Construction could begin as early as June 2035;
- Construction would potentially occur over a nine-month period; and
- Approximately 2,349 CY of soil would be imported during grading.

The results of construction emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All air quality and GHG emissions modeling results, including CalEEMod, are included in Appendix C to this EIR.

Operational Emissions

The Project's operational emissions were estimated using CalEEMod. Based on project-specific construction information provided by the Project Applicant, the Applicant anticipates the Project to be fully operational by 2029. The modeling performed for the Project included compliance with SMAQMD rules and regulations as well as with the modeling performed for the Project included compliance with SMAQMD rules and regulations as well as with the California Building Energy Efficiency Standards Code, which is part of the CBSC. The Project's compliance with such would be verified as part of the City's building approval review process. In addition, Fehr & Peers provided project-specific trip generation rates and VMT data, which were applied to the Project modeling.

The results of operational emissions estimations were compared to the standards of significance discussed above in order to determine the associated level of impact. All air quality and GHG emissions modeling results, including CalEEMod, are included in Appendix C to this EIR.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Project in comparison with the standards of significance identified above.

4.2-1 Conflict with or obstruct implementation of the applicable air quality plan during project construction. Based on the analysis below, the impact is *less than significant*.

During construction of the Project, various types of equipment and vehicles would temporarily operate on the site and in off-site improvement areas. Construction-related emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes PM emissions. As construction of the Project would generate emissions of criteria air pollutants, including ROG, NO_X, and PM_{10}, intermittently within the site and in the vicinity of the site, until all construction has been completed, construction is a potential concern, as the Project is located in a nonattainment area for ozone and PM.

Table 4.2-7 below presents the estimated construction-related emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ associated with the on-site components of the Project and off-site utility lines in comparison with the SMAQMD thresholds of significance as

described above. The construction modeling assumptions are described in the Method of Analysis section above.

Table 4.2-7
Maximum Unmitigated Construction-Related Emissions

Pollutant	Project Emissions	Construction Threshold	Exceeds Threshold?
NO_X	28.30 lbs/day	85 lbs/day	**NO**
ROG	59.80 lbs/day	-	**NO**
PM_{10}	21.00 lbs/day and 0.76 tons/yr	80 lbs/day and 14.6 tons/yr	**NO**
$PM_{2.5}$	11.20 lbs/day and 0.40 tons/yr	82 lbs/day and 15 tons/yr	**NO**

Source: CalEEMod, September 2025 (see Appendix C).

As shown in Table 4.2-7, construction activities would result in emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ below the applicable SMAQMD thresholds of significance. Therefore, construction activities associated with development of the on-site components of the Project and off-site utility lines would not substantially contribute to the SVAB's non-attainment status for ozone or PM. Accordingly, construction of the on-site components of the Project would not violate an air quality standard or contribute to an existing or projected air quality violation, and a less-than-significant impact would occur associated with construction.

It should be noted that construction activity related to implementation of the Project is required to comply with all SMAQMD rules and regulations. As part of the permitting process for the Project, the City would require compliance with SMAQMD regulations. The applicable rules and regulations would include, but would not be limited to, the following:

- Rule 403 related to Fugitive Dust;
- Rule 404 Related to Particulate Matter;
- Rule 407 related to open burning;
- Rule 442 related to Architectural Coatings;
- Rule 453 related to Cutback and Emulsified Asphalt Paving Materials; and
- Rule 460 related to Adhesives and Sealants.

In addition, the control of fugitive dust during construction is required by SMAQMD Rule 403, and enforced by SMAQMD staff. The BMPs for dust control include the following:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads;
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;

- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);
- 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 [CCR Title 13, Sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site;
- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [CCR Title 13, Sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.; and
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

Compliance with the foregoing measures is required per Rule 403, and the City would enforce compliance with Rule 403 as a condition of approval of the Project. Thus, project construction is assumed to include compliance with the foregoing BMPs.

Off-Site Roundabout Improvements

As discussed in the Method of Analysis section above, the Project would include improvements to the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabouts. The maximum unmitigated criteria pollutant emissions associated with construction of the off-site roundabout improvements were estimated using CalEEMod. The construction modeling assumptions are described in the Method of Analysis section above. Table 4.2-8 below presents the estimated construction-related emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ associated with the off-site roundabout improvements in comparison with the SMAQMD thresholds of significance as described above.

Table 4.2-8
Maximum Unmitigated Construction-Related Emissions - Off-Site Roundabout Improvements

Pollutant	Project Emissions	Construction Threshold	Exceeds Threshold?
NO_X	32.70 lbs/day	85 lbs/day	**NO**
ROG	4.60 lbs/day	-	**NO**
PM_{10}	8.20 lbs/day and 0.52 tons/yr	80 lbs/day and 14.6 tons/yr	**NO**
$PM_{2.5}$	1.88 lbs/day and 0.12 tons/yr	82 lbs/day and 15 tons/yr	**NO**

Source: CalEEMod, September 2025 (see Appendix C).

As shown in Table 4.2-8, construction activities would result in emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ below the applicable SMAQMD thresholds of significance. Therefore, construction activities associated with construction of the off-site roundabout improvements would not substantially contribute to the SVAB's non-attainment status for ozone or PM. Accordingly, construction of the off-site

components of the Project would not violate an air quality standard or contribute to an existing or projected air quality violation, and a less-than-significant impact would occur associated with construction.

It should be noted that the Applicant anticipates the Project to be fully operational by 2029, and the off-site roundabout improvements would begin construction in 2035. Thus, the emissions of the Project and the off-site roundabout improvements would not overlap and have been presented separately. However, even if the construction of the Project and the off-site roundabout improvements were to occur simultaneously, the total combined emissions would still remain below SMAQMD's thresholds of significance. In addition, similar to Project construction, construction of the off-site roundabouts would be required to comply with all SMAQMD rules and regulations, including Rule 403.

Conclusion

Based on the above, construction of the on- and off-site components associated with the Project would result in emissions below the applicable SMAQMD thresholds of significance. Therefore, construction of the Project would not create a conflict with nor obstruction of implementation of the applicable air quality plan, and a ***less-than-significant*** impact would result.

Mitigation Measure(s)

None required.

4.2-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation. Based on the analysis below, the impact is *less than significant*.

As discussed above, due to the nonattainment designations of the area, the SMAQMD has developed plans to attain the State and federal standards for ozone and particulate matter. The current applicable air quality plan for the Project area is the *Sacramento Regional 2009 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan), updated July 24, 2017. The Ozone Attainment Plan demonstrates how existing and new control strategies would provide the necessary future emission reductions to meet the CAA requirements, including the federal AAQS. Adopted SMAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with the applicable air quality plan. Thus, if a project's operational emissions exceed the SMAQMD's mass emission thresholds, a project would be considered to conflict with or obstruct implementation of the SMAQMD's air quality planning efforts.

Emissions of ROG, NO_X, and PM_{10} would be generated during operations of the Project from both mobile and stationary sources. Emissions related to operation of the Project would include sources such as architectural coatings, landscape maintenance equipment exhaust, and consumer products (e.g., deodorants, detergents, hair spray, cleaning products, spray paint, insecticides, floor finishes, polishes, etc.). However, the most significant source of emissions related to the Project would be from mobile

sources. As discussed in the Method of Analysis section above, to capture the potential emissions related to mobile sources from the Project, Fehr & Peers prepared project-specific trip generation rates and VMT estimates.

The project is required to comply with all SMAQMD rules and regulations related to operations. The modeling was adjusted to reflect the project's inherent site or design features and compliance with applicable regulations. It should be noted that the project would not involve installation or operation of any pieces of equipment that would require implementation of SMAQMD's BACT measures; therefore, the project would be subject to SMAQMD's mass emissions thresholds for PM_{10} and $PM_{2.5}$. The maximum unmitigated operational emissions for the Project are presented in Table 4.2-9 below. It should be noted that the proposed off-site utility lines and roundabouts improvements would not result in operational emissions and, thus, are not included in the analysis below.

Table 4.2-9
Maximum Unmitigated Project Operational Emissions

Pollutant	Project Emissions	Operational Threshold	Exceeds Threshold?
NO_X	8.56 lbs/day	65 lbs/day	**NO**
ROG	33.30 lbs/day	65 lbs/day	**NO**
PM_{10}	4.51 lbs/day and 0.81 tons/yr	80 lbs/day and 14.6 tons/yr	**NO**
$PM_{2.5}$	1.48 lbs/day and 0.27 tons/yr	82 lbs/day and 15 tons/yr	**NO**

Source: CalEEMod, September 2025 (see Appendix C).

As shown in Table 4.2-9, the emissions resulting from operation of the Project would be below all applicable SMAQMD thresholds of significance. Therefore, operation of the Project would not create a conflict with nor obstruction of implementation of the applicable air quality plan, and a ***less-than-significant*** impact would result.

Mitigation Measure(s)
None required.

4.2-3 Expose sensitive receptors to substantial pollutant concentrations. Based on the analysis below, the impact is *less than significant*.

As noted previously, the nearest sensitive receptors in the vicinity of the site would include existing rural residences located to the north, east, southeast, and to the west, across Waterman Road. The major pollutant concentrations of concern are localized CO emissions, TAC emissions, and criteria pollutant emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Per the SMAQMD Guide, emissions of CO are generally of less concern than other criteria pollutants, as operational activities are not likely to generate substantial quantities of CO, and the SVAB has been in attainment for CO for multiple years.[34] Consequently, the Project is not anticipated to result in significant impacts to air quality related to localized CO emissions.

TAC Emissions

Another category of environmental concern are TACs. The CARB's Air Quality and Land Use Handbook: A Community Health Perspective (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

Operational-related emissions of TACs are typically associated with stationary diesel engines or land uses that involve heavy truck traffic or idling. The proposed land uses would not involve long-term or frequent operations of any stationary diesel engines and would not involve heavy truck traffic or idling. Thus, the Project would not expose sensitive receptors to substantial concentrations of DPM during operations.

Construction-related activities have the potential to generate concentrations of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction would be temporary and would occur over a relatively short duration in comparison to the operational lifetime of the Project. While methodologies for conducting health risk assessments are associated with long-term exposure periods (e.g., over a 30-year period or longer), construction activities associated with the Project were estimated to occur over an approximately two-year period. Only portions of the site would be disturbed at a time throughout the construction period, with operation of construction equipment occurring intermittently throughout the course of a day rather than continuously at any one location on the site. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation includes emissions reducing requirements such as limitations on vehicle idling, disclosure, reporting, and labeling requirements for existing vehicles, as well as standards relating to fleet average emissions and the use of BACTs. Thus, off-road diesel vehicles used during construction of the Project would be required to comply with statewide emissions reductions targets. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, particularly associated with permitting of air pollutant sources. Considering the intermittent nature of construction equipment operating within an influential distance to the nearest

[34] Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment, Chapter 4: Operational Criteria Air Pollutant and Precursor Emissions*. April 2021.

sensitive receptors, the duration of construction activities in comparison to the operational lifetime of the project, the typical long-term exposure periods associated with conducting health risk assessments, and compliance with regulations, the likelihood that any one nearby sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low.

Furthermore, as discussed above, the Project's construction-related emissions would be below the applicable mass emissions thresholds of significance for PM_{10}, with implementation of Mitigation Measure 4.2-1. According to CARB, more than 90 percent of DPM is less than one micrometer in diameter,[35] and, thus, DPM is a subset of $PM_{2.5}$, which comprises a portion of PM_{10}. As a California statewide average, DPM comprises about eight percent of $PM_{2.5}$ in outdoor air,[36] and would represent an even smaller percentage of PM_{10} emissions. Considering that the Project's construction-related PM_{10} emissions, which include emissions of DPM, would be below the SMAQMD's thresholds of significance, construction of the Project would not be expected to generate substantial DPM emissions such that an increase in cancer risk levels of more than 10 in one million persons or a non-cancer hazard index greater than 1.0 would occur.

Based on the above, the Project would not expose sensitive receptors to substantial concentrations of DPM during construction.

Naturally-Occurring Asbestos

According to A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos, prepared by the Department of Conservation, the site is located within an area categorized as least likely to contain NOA. The geology in the site is known to consist of sedimentary rocks, whose deposits are generally less likely to contain NOA due to the composition and lack of metamorphism. Faults and serpentinite outcroppings are not known to be in the project area.[37] Consequently, NOA is not anticipated to be present on the site.

Criteria Pollutants

Recent rulings from the California Supreme Court (including the *Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502 case regarding the proposed Friant Ranch Project) have underscored the need for analysis of potential health impacts resulting from the emission of criteria pollutants during operations of Projects. Although analysis of project-level health risks related to the emission of CO and TACs has long been practiced under CEQA, the analysis of health impacts due to individual projects resulting from emissions of criteria pollutants is a relatively new field. SMAQMD released the *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District* (Guidance) for the analysis of criteria emissions in areas within the District's jurisdiction.[38] The Guidance represents SMAQMD's effort to develop a

[35] California Air Resources Board. *Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10}).* Available at: https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health. Accessed June 2025.

[36] California Air Resources Board. *Overview: Diesel Exhaust & Health.* Available at: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed June 2025.

[37] California Department of Conservation, Division of Mines and Geology. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos*. August 2000.

[38] Sacramento Metropolitan Air Quality Management District. *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District*. June 2020.

methodology that provides a consistent, reliable, and meaningful analysis in response to the Supreme Court's direction on correlating health impacts to a project's emissions.

The Guidance was prepared by conducting regional photochemical modeling, and relies on the USEPA's Benefits Mapping and Analysis Program (BenMAP) to assess health impacts from ozone and $PM_{2.5}$. SMAQMD has prepared two tools that are intended for use in analyzing health risks from criteria pollutants. Small projects with criteria pollutant emissions close to or below SMAQMD's adopted thresholds of significance may use the Minor Project Health Effect Screening Tool, while larger projects with emissions between two and six times greater than SMAQMD's adopted thresholds may use the Strategic Area Project Health Screening Tool. Considering the Project would result in emissions lower than the SMAQMD's thresholds of significance, the project would qualify for use of the Minor Project Health Effects Screening Tool. It is important to note, however, that the Minor Project Health Effects Screening Tool applies the assumption that all small projects result in emissions of criteria pollutants equal to the SMAQMD thresholds of significance. As shown in Table 4.2-9, the project would result in operational emissions below the SMAQMD thresholds of significance and, thus, the health impacts calculated for the project using in the Minor Project Health Effects Screening Tool are highly conservative. The project's actual health impacts associated with criteria pollutant emissions would be expected to be much less than what is presented herein based on the aforementioned SMAQMD tool. Results from the Minor Project Health Effects Screening Tool are shown in Table 4.2-10 below.

As shown in the table, according to the Minor Project Health Effects Screening Tool, which is based on the highly conservative assumption that the project would emit criteria pollutants at levels equal to the SMAQMD thresholds of significance, the Project could result in 1.7 premature deaths per year due to the project's $PM_{2.5}$ emissions and 0.035 premature deaths per year due to the project's ozone emissions. Such numbers represent a very small increase over the background incidence of premature deaths due to $PM_{2.5}$ and ozone concentrations (0.0038 percent and 0.0001 percent, respectively). In addition, according to the Minor Project Health Effects Screening Tool, $PM_{2.5}$ emissions from the Project could result in 0.83 asthma-related emergency room visits, and ozone emissions from the Project could result in 0.75 asthma-related emergency room visits.

Such numbers represent a minute increase over the background level of asthma-related emergency room visits (0.0045 percent and 0.0041 percent, respectively). As noted above, because the Project's emissions would be substantially below the SMAQMD thresholds of significance, the Project's actual health impacts associated with criteria pollutant emissions would be much lower than what is presented in Table 4.2-10.

Furthermore, the SMAQMD criteria pollutant thresholds of significance were established with consideration given to the health-based air quality standards established by the NAAQS and CAAQS, and are designed to aid the district in achieving attainment of the NAAQS and CAAQS. The thresholds of significance represent emissions levels that would ensure that project-specific emissions would not inhibit attainment of regional NAAQS and CAAQS and, therefore, would not adversely affect public health.

Table 4.2-10
Health Effects from Project

Health Endpoint	Age Range[1]	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year)[2] (Mean)	Percent of Background Health Incidences Across the 5-Air-District Region[3] (%)	Total Number of Health Incidences Across the 5-Air-District Region (per year)[4]
Respiratory $PM_{2.5}$				
Emergency Room Visits, Asthma	0-99	0.83	0.0045	18,419
Hospital Admissions, Asthma	0-64	0.05	0.0030	1,846
Hospital Admissions, All Respiratory	65-99	0.25	0.0013	19,644
Cardiovascular $PM_{2.5}$				
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65-99	0.14	0.0006	24,037
Acute Myocardial Infarction, Nonfatal	18-24	0.00	0.0018	4
Acute Myocardial Infarction, Nonfatal	25-44	0.01	0.0020	308
Acute Myocardial Infarction, Nonfatal	45-54	0.02	0.0022	741
Acute Myocardial Infarction, Nonfatal	55-64	0.03	0.0021	1,239
Acute Myocardial Infarction, Nonfatal	65-99	0.09	0.0018	5,052
Mortality $PM_{2.5}$				
Mortality, All Cause	30-99	1.7	0.0038	44,766
Respiratory Ozone				
Hospital Admissions, All Respiratory	65-99	0.05	0.0003	19,644
Emergency Room Visits, Asthma	0-17	0.29	0.0050	5,859
Emergency Room Visits, Asthma	18-99	0.46	0.0036	12,560
Mortality Ozone				
Mortality, Non-Accidental	0-99	0.035	0.0001	30,386

[1] Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the USEPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.
[2] Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are shown for the 5-Air-District Region.
[3] The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, the background incidence rates cover the 5-Air-District Region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP.
[4] The total number of health incidences across the 5-Air-District Region is calculated based on the modeling data. The information is presented to assist in providing overall health context.

Source: SMAQMD, Minor Project Health Effects Screening Tool. March 2025 (see Appendix C).

Considering that implementation of the Project would not result in emissions of criteria pollutants that would exceed the SMAQMD standards, the Project would not inhibit attainment of regional NAAQS and CAAQS and would not result in adverse health impacts related to the emission of criteria pollutants.

The results of the Minor Project Health Effects Screening Tool have been presented for informational purposes only. Overall, because the project would be relatively small compared to the regional growth and development that drives health impacts from criteria pollutants, and the anticipated air quality emissions would fall below all applicable thresholds of significance, potential health impacts related to criteria air pollutants would be less than significant.

Conclusion

Based on the above analysis, the proposed residential land uses would not be anticipated to result in the production of substantial concentrations of TACs, including DPM, localized CO, or criteria pollutants. In addition, the likelihood of NOA being present on the site is low. Therefore, the Project would not result in the exposure of sensitive receptors to substantial pollutant concentrations, and a ***less-than-significant*** impact would result

Mitigation Measure(s)

None required.

4.2-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Based on the analysis below, the impact is *less than significant*.

Emissions of pollutants have the potential to adversely affect sensitive receptors within the Project area. Pollutants of principal concern include emissions leading to odors, emissions that have the potential to cause dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in Impacts 4.2-1 through 4.2-3 above. Therefore, the following discussion focuses on emissions of odors and dust.

Odors

Odors are generally regarded as an annoyance rather than a health hazard. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact are difficult. Certain land uses such as wastewater treatment and conveyance facilities, landfills, confined animal facilities, composting operations, food manufacturing plants, refineries, and chemical plants have the potential to generate considerable odors. Operations of the Project would involve activities typical to residential developments, and, consequently, would not be anticipated to result in the creation of substantial odors.

Diesel fumes from construction equipment could be found to be objectionable; however, as addressed above, operation of construction equipment would be regulated by SMAQMD rules and regulations, restricted to the hours of 7:00 AM to 7:00 PM per Section 6.32.100 of the Elk Grove Municipal Code (EGMC), and would

occur intermittently throughout the course of a day. Furthermore, considering the large development area, construction equipment would operate at various locations throughout the site intermittently, and the distances from the nearest sensitive receptors would allow for dispersal of diesel odors. For the aforementioned reasons, the Project would not result in any noticeable objectionable odors associated with construction.

In addition, SMAQMD Rule 402, Nuisance, prohibits the emission of nuisance air contaminant discharges, including odors, and provides enforcement of odor control. Rule 402 is complaint-based, where if public complaints are sufficient to cause the odor source to be considered a public nuisance, then SMAQMD is required to investigate the identified source, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications to correct the nuisance condition. Thus, although not anticipated, if odor or air quality complaints are made upon development of the Project, SMAQMD would be required (per SMAQMD Rule 402) to ensure that such complaints are addressed and mitigated, as necessary.

Dust

With regard to dust, the Project is required to comply with all applicable SMAQMD rules and regulations for construction, including, but not limited to, Rule 403 (Fugitive Dust) and Rule 404 (Particulate Matter). Furthermore, all projects are required to implement the SMAQMD's BMPs. Compliance with SMAQMD rules and regulations and BMPs would help to ensure that dust is minimized during project construction. Following project construction, vehicles operating within the site would be limited to paved areas of the site, which would not have the potential to create substantial dust emissions. Thus, Project operations would not include sources of dust that could adversely affect a substantial number of people.

Conclusion

For the aforementioned reasons, Project construction and operations would not result in substantial emissions, such as those leading to odors or dust, which could adversely affect a substantial number of people, and a ***less-than-significant*** impact would result.

Mitigation Measure(s)

None required.

4.2-5 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, the impact is *less than significant*.

The following discussion addresses the potential for the Project to result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency. In addition, the analysis includes an evaluation of the proposed off-site improvements.

Construction Energy Use

Construction of the Project would involve increased energy demand and consumption related to the use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met through a hookup to the existing electricity grid.

Typically, at construction sites, electricity from the existing grid is used to power portable and temporary lights or office trailers. Because grid electricity would be used primarily for steady sources such as lighting, not sudden, intermittent sources such as welding or other hand-held tools, the increase in electricity usage at the site during construction would not be expected to cause any substantial peaks in demand. Construction of the Project, which would result in temporary increases in electricity demand, would not cause a permanent or substantial increase in demand that would exceed SMUD's demand projections or exceed the ability of SMUD's existing infrastructure to handle such an increase. Therefore, Project construction would not result in any significant impacts on local or regional electricity supplies, the need for additional capacity, or on peak or base period electricity demands. In addition, standards or regulations specific to construction-related electricity usage do not currently exist.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the site would be disturbed at a time, with operation of construction equipment occurring at different locations on the site, rather than a single location. In addition, as discussed above, construction is temporary and occurs over a relatively short duration. Furthermore, all construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing a five-minute limit on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. Furthermore, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. Engine tiers are used to describe the emissions intensity and efficiency of an engine. Construction equipment with Tier 0 or Tier 1 engines are the least efficient, and Tier 4 is the most efficient. In November 2021, the CARB began developing standards for Tier 5 engines. As of 2015, vehicles with Tier 0 and Tier 1 engines are prohibited from being added to equipment fleets. Fleets with a total horsepower over 2,501, excluding non-profit training centers, may not add any Tier 2 engines and, starting January 1, 2024, all newly added engines must be Tier 4 final or higher.[39] The In-Use Off-Road Diesel Vehicle Regulation would, therefore, help to improve fuel efficiency for equipment used in construction of the Project.

[39] California Air Resources Board. *In-Use Off Road Diesel-Fueled Fleets Regulation Overview*, *Revised October 2016*. 2016.

The CARB enforces off-road equipment regulations through their reporting system, Diesel Off-road Online Reporting System (DOORS). Each construction fleet is required to update their DOORS account within 30 days of buying or selling a vehicle, and DOORS automatically calculates the fleet average index for each fleet. The fleet average index is an indicator of a fleet's overall emission rate, and is based on each vehicle's engine horsepower and model year, and whether it is equipped with a Verified Diesel Emission Control Strategy (VDECS). If a fleet cannot, or does not want to, meet the fleet average target in a given year, the fleet may instead choose to comply with the BACT requirements. A fleet may meet the BACT requirements each year by turning over or installing VDECS on a certain percentage of its total fleet horsepower. 'Turnover' means retiring a vehicle, designating a vehicle as permanent low-use (a vehicle used less than 200 hours per year), repowering a vehicle with a higher tier engine, or rebuilding the engine to a more stringent emission standard. By each compliance date (annually on January 1st), the fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the BACT requirements.[40] The Project would be required to comply with such regulations, which would ensure that construction equipment meets all State efficiency requirements.

Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand on oil and limit emissions associated with construction. Over time, as technology progresses and more stringent emissions standards are put in place, construction equipment engines become increasingly efficient. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, which are indirectly related to energy efficiency, which would help to further reduce energy use associated with the Project.

Based on the above, the temporary increase in energy use occurring during construction of the Project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the Project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Building Energy Demand

The Project would include future development of a maximum of 499 age-restricted single-unit residences within a Special Planning Area (SPA) as well as various associated improvements, such as a private community recreation center/clubhouse, private park space, trails, public open space areas, landscaping, and a number of on- and off-site roadway and utility improvements. Energy use associated with the operation of the Project would be typical of such uses, requiring electricity for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC) systems, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site

[40] California Air Resources Board. *Frequently Asked Questions, Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation)*. August 2014.

energy use, the Project would result in transportation energy use associated with vehicle trips generated by employees and visitors travelling to and from the site.

The Project is required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the CBSC and CARB standards, which would ensure that the future uses would be designed to be energy efficient to the maximum extent practicable. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed development on-site would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. In addition, State regulations promote the generation of renewable energy and encourage energy efficiency through requirements placed on utility providers and strict development standards. For instance, the RPS requires utilities, including the SMUD, to procure an increasing proportion of electricity from renewable sources. Ultimately the RPS requirements mandate that all electricity produced within the State be renewably sourced by the year 2045.

Based on the air quality modeling prepared for the Project, the Project is anticipated to result in increased electricity consumption of approximately 4.57 GWh annually during operations. It is noted that, compared to the electricity consumption for all of Sacramento County, the Project's contribution would represent a 0.04 percent increase in electricity demand. Although the project would increase electricity demand in the project area, given the relatively small increase as compared to energy usage in the region, the increased demand is not anticipated to conflict with SMUD's ability to meet the RPS requirements, or exceed SMUD's capacity such that the Project's energy demands would not be met.

With regard to landscaping and maintenance equipment, AB 1346 would require that all small off-road engines purchased after January 1, 2024 are all-electric. Given that SMUD has vowed to reach zero carbon emissions in their power supply by 2030,[41] the use of electric maintenance equipment would be considered more energy efficient than diesel- or gas-powered maintenance equipment.

Transportation Energy Demand

The average fuel economy for the U.S. passenger vehicle fleet was 24.7 miles per gallon (mpg) in 2023, the most recent year such data is available.[42] In addition, petroleum refineries in the U.S. typically produce approximately 20 gallons of gasoline from one 42-gallon barrel of crude oil. Using an average of 24.7 mpg and an annual VMT of approximately 2,087,800[43] the Project would result in the consumption of approximately 4,226 barrels of crude oil per year.

41 Sacramento Municipal Utility District. *2030 Zero Carbon Plan.* April 2021.

42 U.S. Energy Information Administration. *Total Energy, Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy*. Available at: https://www.eia.gov/totalenergy/data/browser/?tbl=T01.08#/?f=A&start=200001. Accessed June 2025.

43 The annual VMT estimate presented herein is based on the Transportation Impact Study prepared for the Project by Fehr & Peers.

California is estimated to consume approximately 605 million barrels of petroleum per year.[44] Based on the annual consumption within the State, vehicle trips generated by the Project would result in an approximately 0.0006 percent increase in the State's current consumption of gasoline.

The calculation above is likely an overestimate, as the estimate does not account for future project residents who already own vehicles and are currently driving, or the increasing ownership of electric vehicles. California leads the nation in registered alternatively-fueled and hybrid vehicles. In fact, under SB 500, the State has required that, to the extent allowed by federal law, all cars sold shall be zero-emission/electric vehicles starting in the year 2030. In addition, State-specific regulations encourage fuel efficiency and reduction of dependence on oil. Improvements in vehicle efficiency and fuel economy standards help to reduce consumption of gasoline and reduce the State's dependence on petroleum products. The 2022 CBSC also requires new developments to include the necessary electrical infrastructure for EV charging stations. As discussed within Impact 4.2-7 below, Mitigation Measure 4.2-7(a) would require the provision of EV charging infrastructure on-site consistent with the CalGreen Tier 2 requirements. Based on the above, the actual consumption of gasoline associated with the Project is anticipated to be even lower than the 0.0006 percent statewide contribution noted above.

The Project would be required to comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, buildout of the Project would involve the provision of sidewalks throughout the site, as well as several bicycle and pedestrian infrastructure improvements. Such improvements would provide pedestrian and bicycle connectivity within the site, thereby helping to discourage driving and reduce vehicle trips and associated transportation energy demand.

Conclusion

Based on the above, the Project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and the Project is not anticipated to conflict with a State or local plan for renewable energy or energy efficiency. Thus, impacts would be considered ***less than significant***.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

[44] U.S. Energy Information Administration. *California: State Profile and Energy Estimates*. Available at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA. Accessed June 2025.

A project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The geographic context for the cumulative air quality and GHG analysis includes the City of Elk Grove and surrounding areas within the portion of the SVAB that is designated nonattainment for ozone and PM_{10}. Refer to Chapter 6, Statutorily Required Sections, for additional detail regarding the cumulative setting evaluated in this EIR.

4.2-6 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). Based on the analysis below, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

The Project is within a nonattainment area for ozone and PM_{10}. By nature, air pollution is largely a cumulative impact. The population growth and vehicle usage within the nonattainment area from the Project, in combination with other past, present, and reasonably foreseeable projects within Elk Grove and surrounding areas, contributes to the region's adverse air quality impacts on a cumulative basis, and could either delay attainment of AAQS or require the adoption of additional controls on existing and future air pollution sources to offset emission increases. Thus, the project's emissions of criteria air pollutants would contribute to cumulative regional air quality effects.

As noted in the Standards of Significance section above, SMAQMD directs lead agencies to use the region's existing attainment plans as a basis for analysis of cumulative emissions. A project's interference with such plans may be determined through the use of the SMAQMD's recommended thresholds of significance for ozone precursors, $PM_{2.5}$, and PM_{10}. The SMAQMD's recommended cumulative thresholds are identical to the operational thresholds, both of which are presented in Table 4.2-6.

Accordingly, if the Project would result in an increase of ROG, NO_X, PM_{10}, or $PM_{2.5}$ in excess of SMAQMD's operational phase cumulative-level emissions threshold, which are equivalent to SMAQMD's project-level operational emissions thresholds, the project could potentially result in a significant incremental contribution towards cumulative air quality impacts. The Project's unmitigated cumulative contribution to regional emissions is equivalent to the project's unmitigated operational emissions, as presented in Table 4.2-9.

As shown in Table 4.2-9, the Project's unmitigated operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ would be below the SMAQMD's applicable thresholds of significance. Therefore, implementation of the Project would not result in a significant incremental contribution to a cumulative violation of any air quality standards, contribute substantially to an existing or projected air quality violation, or conflict with and/or obstruct implementation of the SMAQMD's air quality planning efforts. As such, the Project's incremental contribution to regional air quality impacts would be ***less-than-cumulatively considerable***.

Mitigation Measure(s)
None required.

4.2-7 Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Based on the analysis below, even with mitigation, the project's incremental contribution to this significant cumulative impact is *cumulatively considerable and significant and unavoidable.*

An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the Project would cumulatively contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO_2 and, to a lesser extent, other GHG pollutants, such as CH_4 and N_2O. Sources of GHG emissions include area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste.

As discussed above, the City of Elk Grove has adopted a CAP which serves as a Qualified GHG Reduction Strategy under Section 15183.5 of the CEQA Guidelines. However, the Project would require a General Plan Amendment and Rezone; thus, the GHG emissions resulting from the Project have not been accounted for within the City of Elk Grove's CAP. Because the Project has not been accounted for within the City's CAP, this GHG analysis has been prepared to show compliance with SMAQMD's construction and operational GHG thresholds of significance. In addition, although the Project was not considered within the City's CAP, the Project would be required to show consistency with the CAP Consistency Review Checklist included in the City of Elk Grove CAP. Thus, a CAP consistency analysis is also included below.

Construction GHG Emissions

The estimated unmitigated maximum construction-related emissions associated with the Project are presented in Table 4.2-11.

Table 4.2-11
Maximum Unmitigated On-Site Construction GHG Emissions ($MTCO_2e$/yr)

GHG Emissions	Threshold of Significance	Exceeds Threshold?
727	1,100	**NO**

Source: CalEEMod, September 2025 (see Appendix C).

As shown in the table, the maximum annual construction-related GHG emissions would be below the SMAQMD threshold of 1,100 $MTCO_2e$/yr. Therefore, Project construction would not be considered to result in a cumulatively considerable contribution to global climate change.

Off-Site Roundabout Improvements

The maximum unmitigated construction GHG emissions associated with construction of the off-site roundabout improvements were estimated using CalEEMod. The construction modeling assumptions are described in the Method of Analysis section above. As further described above, the Applicant anticipates the Project to be fully operational by 2029, and the off-site roundabout improvements would begin construction in 2035. Further, because the off-site roundabout improvements would be subject to the City's Rural Road Policy, the improvements would follow completion of the Project, as roadway improvements in the Rural Area are not completed in advance of delay or congestion. Thus, the construction emissions associated with the Project and the off-site roundabout improvements would not overlap and have been presented separately.

Table 4.2-12 below presents the estimated construction-related GHG emissions associated with the off-site roundabout improvements in comparison with the SMAQMD thresholds of significance as described above.

Table 4.2-12
Maximum Unmitigated On-Site Construction GHG Emissions – Off-Site Roundabout Improvements ($MTCO_2e$/yr)

GHG Emissions	Threshold of Significance	Exceeds Threshold?
799	1,100	**NO**

Source: CalEEMod, Septemeber 2025 (see Appendix C).

As shown in Table 4.2-12, construction activities would result in GHG emissions below the applicable SMAQMD thresholds of significance. Therefore, project construction would not be considered to result in a cumulatively considerable contribution to global climate change.

Operational GHG Emissions

The maximum unmitigated operational GHG emissions for the first year of operation associated with the Project (assumed to be 2029) were estimated using CalEEMod and are presented in Table 4.2-13.

As noted previously, the Project would require a General Plan Amendment and Rezone. For informational purposes, the emissions associated with the existing land use designation have been calculated. Assuming development of the site under the density currently allowed by the City's General Plan, a maximum of 58 rural residences could be constructed on-site, which would result in a maximum of 885 $MTCO_2e$/yr. Thus, as compared to buildout of the site under currently allowed conditions, the Project would result in a net increase of 1,617 $MTCO_2e$/yr during operations.

Table 4.2-13
Maximum Unmitigated Operational GHG Emissions

Operational Emission Source	GHG Emissions ($MTCO_2e$/yr)
Mobile	777
Area	8.82
Energy	1,561
Water	33.90
Waste	120
Refrigerants	1.16
TOTAL ANNUAL OPERATIONAL GHG EMISSIONS[1]	**2,502**

[1] Rounding may result in small differences in summation.

Source: CalEEMod, September 2025 (see Appendix C).

The Project's compliance with the SMAQMD's BMPs is discussed in further detail below.

BMP-1: No Natural Gas

In order to be consistent with BMP 1, the Project is required to include all electric appliances and plumbing. However, project specific information is not available to ensure that the Project would be designed and constructed without natural gas infrastructure.

According to the SMAQMD's guidance, a project would not conflict with BMP 1 if an equivalent reduction in GHG emissions can be demonstrated elsewhere. Therefore, if natural gas is proposed to be used on-site, the Project would be required to implement GHG reduction measures as deemed feasible by the City and SMAQMD, such as the inclusion of pre-wiring to allow for the future retrofit of natural gas appliances with all-electric appliances. Without the prohibition of natural gas on-site or the inclusion of feasible GHG reduction measures, operation of the Project would not comply with BMP 1. As such, compliance with such requirements would be ensured by Mitigation Measure 4.2-7(a).

In addition, it should be noted that the City is preempted by federal law from enforcing a total prohibition of the use of natural gas for this Project pursuant to *California Rest. Ass'n v. City of Berkeley*, 89 F.4th 1094, 1099 (9th Cir. 2024) (finding the City of Berkeley's natural gas ban preempted by the federal Energy Policy and Conservation Act). The feasibility of BMP 1 also relies on the adequate availability of electricity at the time of development. Because implementation of a total prohibition of natural gas under BMP 1 is not legally enforceable and may not be commercially feasible at the time of development for certain project components, the use of GHG/carbon offsets is included in Mitigation Measure 4.2-7(a) to ensure that any natural gas usage associated with the Project due to the unenforceability of the prohibition of natural gas or commercial infeasibility of all electric is adequately offset at the time of Project development.

BMP-2: EV-Ready

Consistent with BMP-2, the Project would be required to provide EV Ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV

Capable spaces (see Table 4.2-14). However, project specific information is not available to ensure that development within the Summer Villas SPA would be designed to include the required number of EV Ready and EVSE spaces. Thus, Mitigation Measure 4.2-7(a) would be required to ensure Project compliance with BMP-2.

Table 4.2-14
EV Ready Parking Space Requirements

Land Use Type	Requirements for New Construction		
1-2 family dwelling units/townhouses[1]	Each dwelling unit shall have a listed raceway to accommodate a dedicated 208/40-volt branch circuit		
Multifamily dwelling units, hotels, and motels[2]	55 percent of total parking spaces shall be EV Ready, and 20 percent of spaces shall have Level 2 EV Chargers		
Nonresidential[3]	**Total Number of Parking Spaces**	**EV Ready Spaces**	**EVSE Spaces**
	0-9	3	0
	10.25	8	3
	26-50	17	6
	51-75	28	9
	76-100	40	13
	101-150	57	19
	151-200	79	26
	201 and over	45 percent of actual parking spaces	33 percent of EV Ready Spaces

Sources:
1. ***2022 CalGreen Code Section A4.106.8.1.***
2. ***2022 CalGreen Code Section A4.106.8.2.***
3. ***2022 CalGreen Code Table A5.106.5.3.3.***

BMP-3: No Net increase in Total VMT

As noted above, BMPs 1 and 2 would be required to be implemented during buildout of the Project. However, even with implementation of BMPs 1 and 2, the Project would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3.

As discussed in further detail in Chapter 4.11, Transportation, the Project would result in VMT in excess of the City's thresholds of significance. In order to reduce VMT associated with the Project to below the applicable thresholds of significance, the Project would be required to achieve a 7.3 percent reduction in VMT per service population and a 0.07 percent reduction in total VMT within the City Limits.

Implementation of Mitigation Measures 4.2-7(c), which would ensure the implementation of Mitigation Measures 4.11-4, would reduce Project VMT through the implementation of Transportation Demand Management (TDM) strategies to reduce external vehicle trips generated by residents of the Project. However, the effectiveness of the TDM strategies cannot be quantified at this time and subsequent vehicle trip

reduction effects cannot be guaranteed. Thus, due to uncertainties regarding the ability for the aforementioned mitigation measures to reduce VMT impacts to less-than-significant levels, VMT impacts of the Project are considered significant and unavoidable.

Based on the above, even with implementation of Mitigation Measure 4.2-7(c), the Project would not meet the requirements of an established local SB 743 target. Thus, the Project would not comply with BMP-3 and the GHG impact would remain significant and unavoidable.

Elk Grove CAP Consistency

The City of Elk Grove has adopted a CAP which serves as a Qualified GHG Reduction Strategy under Section 15183.5 of the CEQA Guidelines. The purpose of the City's CAP is to identify how the City will achieve State-recommended targets of reducing GHG emissions to 1990 levels by 2020 and 40 percent below 1990 levels by 2030 pursuant to AB 32 and SB 32. The CAP used the City's General Plan land use designations to inventory GHG emissions associated with the land uses within the City's jurisdictional boundary. However, as discussed above, the Project would require a General Plan Amendment and Rezone. The current designation of the site would be changed from Rural Residential (RR) to Low Density Residential (LDR) and Parks and Open Space (P/OS). The existing density allowed by the General Plan would result in a total of 58 rural residences, while the General Plan Amendment would allow for up to 499 single-unit residences to be constructed on-site. As such, and in accordance with the CAP Consistency Review Checklist, the Project is required to conduct a GHG impact analysis to account for the increase in intensity and then incorporate each of the applicable measures identified to mitigate cumulative GHG emissions impacts. Table 4.2-15 below provides the estimated operational-related GHG emissions associated with development of the site under the density currently allowed by the City's General Plan as compared to the emissions that would occur from buildout of the site under Project conditions.

Table 4.2-15
Maximum Estimated Operational GHG Emissions - Existing Conditions Compared to the Project

Scenario	GHG Emissions ($MTCO_2e$/yr)
Existing General Plan Conditions	885
Project	2,502
Net Difference	*+1,617*

Source: CalEEMod, September 2025 (see Appendix C).

As shown in the table above, the Project would result in an increase in operational-related GHG emissions as compared to the density currently allowed by the City's General Plan.

Additionally, for informational purposes, the Project's per capita emissions have been evaluated against the CAP's per capita emissions goals. The Elk Grove CAP provides emissions per capita targets for 2030 and 2050. The City is targeting 4.1 $MTCO_2e$ for the year 2030 and 1.4 $MTCO_2e$ for the year 2050. In order to analyze the Project's emissions per capita, the Project's GHG emissions have been estimated using

CalEEMod, as described above within the Methods of Analysis. According to the project-specific modeling, the Project would result in unmitigated GHG emissions of 2,502 $MTCO_2e$ annually. Additionally, the projected population at buildout of the Project would be 1,542 residents, as discussed further detail in Chapter 4.8, Land Use and Planning/Population and Housing. Thus, the Project was determined to result in GHG emissions of 1.62 $MTCO_2e$ per capita per year, which would be below the CAP's 2030 4.1 $MTCO_2e$ per capita goal. Thus, the Project would not hinder the City's ability to achieve the 2030 per capita goal, although the Project would be above the CAP's 2050 1.4 $MTCO_2e$ per capita goal.

Although the Project was not considered within the City's CAP, the Project would be required to show consistency with the CAP Consistency Review Checklist through the implementation of the mitigation measures below. Table 4.2-16 below, presents a consistency discussion for each of the CAP measures that are required for analysis in CEQA documents.

Table 4.2-16
Elk Grove CAP Consistency Review Checklist Summary

CAP Implementation Measure	Project Consistency
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.	The Project applicant has committed to comply with CALGreen Tier 1 standards, which would be ensured through Mitigation Measure 4.2-7(b). Thus, the Project complies with Measure BE-4.
BE-5. Decrease Energy Emissions in New Construction Decrease energy emissions beginning in 2025 for new residential construction. Phase in Zero Net Energy (ZNE) standards by 2030 for new commercial projects.	Mitigation Measure 4.2.7(a) provides that the Project is required to either (i) be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; or (ii) be designed to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and the Applicant shall purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric. The overall intent of BE-5 is to decrease energy emissions for new residential construction. Thus, implementation of Mitigation Measure 4.2.7(a) would ensure that the Project generally complies with the intent of Measure BE-5.
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	The Project applicant has committed to requiring at least 10 percent of the proposed units to include exclusively electrical appliances and HVAC system, which would be ensured through Mitigation Measure 4.2-7(b). Thus, the Project complies with Measure BE-6.

Table 4.2-16
Elk Grove CAP Consistency Review Checklist Summary

CAP Implementation Measure	Project Consistency
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.	
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.	The 2022 CBSC requires that new residential structures be built with rooftop solar. The Project would be required to include rooftop solar PV panels, which would be ensured through Mitigation Measure 4.2-7(b). Thus, the Project complies with Measure BE-7.
TACM-6. Limit Vehicle Miles Traveled Achieve a 15 percent reduction in daily VMT compared to existing conditions (2015) for all new development in the City, consistent with state-mandated VMT reduction targets for land use and transportation projects.	As discussed in further detail in Chapter 4.11, Transportation, the Project would result in VMT in excess of the City's thresholds of significance. In order to reduce VMT associated with the Project to below the applicable thresholds of significance, the Project would be required to achieve a 7.3 percent reduction in VMT per service population and a 0.07 percent reduction in total VMT within the City Limits. Implementation of Mitigation Measures 4.2-7(c), which would ensure the implementation of Mitigation Measures 4.11-4, would reduce Project VMT through the implementation of Transportation Demand Management (TDM) strategies to reduce external vehicle trips generated by residents of the Project. However, the effectiveness of the TDM strategies cannot be quantified at this time and subsequent vehicle trip reduction effects cannot be guaranteed. Thus, due to uncertainties regarding the ability for the aforementioned mitigation measures to reduce VMT impacts to less-than-significant levels, VMT impacts of the Project are considered significant and unavoidable. Based on the above, the Project would not comply with Measure TACM-6.
TACM-8. Tier 4 Final Construction Equipment Require all construction equipment used in Elk Grove to achieve EPA-rated Tier 4 Final diesel engine	The project applicant has committed to requiring that all off-road construction equipment used during project construction be EPA-rated Tier 4 Final, which would be ensured through Mitigation Measure

Table 4.2-16
Elk Grove CAP Consistency Review Checklist Summary

CAP Implementation Measure	Project Consistency
standards by 2030 and encourage the use of electrified equipment where feasible.	4.2-7(b). Thus, the Project complies with Measure TACM-8.
TACM-9. EV Charging Requirements Adopt an electric vehicle (EV) charging station ordinance that establishes minimum EV charging standards for all new residential and commercial development. Increase the number of EV charging stations at municipal facilities throughout the City.	In order to be consistent with SMAQMD's BMP 2, the Project would be required to be consistent with the current CalGreen Tier 2 standards. The Project will comply with this measure by including electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces, which would be ensured through Mitigation Measure 4.2-7(a). Thus, the Project complies with Measure TACM-9.

Source: City of Elk Grove. Climate Action Plan: 2019 Update. Adopted December 2019; Amended December 2022, December 2024.

Conclusion

Based on the above, in comparison to both the SMAQMD thresholds as well as compliance with the City's CAP, implementation of the Project could 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 GHG during operations. Thus, the Project could result in a ***cumulatively considerable*** incremental contribution to this significant cumulative impact.

Mitigation Measure(s)

Implementation of Mitigation Measure 4.2-7(a) would ensure compliance with SMAQMD BMP-1 and BMP-2. Mitigation Measure 4.2-7(c) would ensure compliance with SMAQMD BMP-3. Additionally, implementation of 4.2-7(b) would ensure compliance with the applicable CAP Measures. The GHG reductions which would result from the implementation of all the mitigation measures were estimated using CalEEMod. Based on the CalEEMod emissions estimate, the Project's GHG emissions would be reduced from 2,502 $MTCO_2e$ to 1,320 $MTCO_2e$, which equates to 0.86 $MTCO_2e$ per capita per year. GHG emissions of 0.86 $MTCO_2e$ per capita per year would be below the CAP's 2030 and 2050 per capita goals. However, with regard to SMAQMD BMP-3 and TACM-6, as discussed further in Chapter 4.11, Transportation, of this EIR, the effectiveness of the TDM strategies included in Mitigation Measure 4.11-4, required by Mitigation Measure 4.2-7(c), cannot be quantified or guaranteed at this time, and subsequent vehicle trip reduction effects cannot be guaranteed. Therefore, based on the above and due to uncertainties regarding the aforementioned mitigation measures, the Project's impact would remain *cumulatively considerable* and *significant and unavoidable*.

4.2-7(a) The following requirements shall be noted on Project improvement plans, subject to review and approval by the City of Elk Grove Community Development Department:

- *The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces; and*
- *The Project shall either (i) be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; or (ii) be designed to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and the Applicant shall purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric, as set forth in further detail below.*

The emissions from any use of natural gas shall be calculated by a qualified professional utilizing SMAQMD-, CARB-, or the USEPA-approved emissions models and quantification methods available and submitted to the City for review and approval, which shall include third-party review by a qualified consultant of the City's selection and be subject to applicant reimbursement of consultant costs.

Any and all GHG credits to offset for the use of natural gas must be created through a CARB-approved registry. These registries are currently the ACR, CAR, and Verra, although CARB may accredit additional registries in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. The selected protocol must demonstrate that the GHG-emissions reductions are real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR 95802(a) are provided below.

(1) *Real: GHG reductions or enhancements result from a demonstrable action or set of actions and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the [GHG credit] project boundary and account for uncertainty and the potential for activity-shifting and market-shifting leakage.*
(2) *Additional: GHG reductions or removals that exceed any GHG reduction, or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative BAU scenario.*
(3) *Permanent: GHG reductions and removal enhancements are not reversible or, when GHG reductions and GHG-removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG-emission reductions and GHG-removal enhancements to ensure that all credited reductions endure for at least 100 years.*

(4) Quantifiable: The ability to accurately measure and calculate GHG reductions or GHG-removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included within the [GHG credit] project boundary, while accounting for uncertainty. activity-shifting, and market-shifting leakage.

(5) Verifiable: A [GHG credit] project report assertion is well-documented and transparent such that it lends itself to an objective review by an accredited verification body.

(6) Enforceable: The authority for CARB to hold a particular party liable and take appropriate action if any of the provisions of this article are violated. Note that this definition of enforceability is specific to the Cap-and-Trade regulation, where CARB holds enforcement authority, but this measure will employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and backed by a legal instrument or contract that defines exclusive ownership.

Geographic Prioritization of GHG Credits

GHG credits from reduction projects in the City will be prioritized before projects in larger geographies (i.e., northern California, California, United States, and international). The applicant will inform brokers of the required geographic prioritization for the procurement of GHG credits. GHG credits from reduction projects identified in the City that are of equal or lesser cost compared to the settlement price of the latest Cap-and-Trade auction must be included in the transaction. GHG credits from reduction projects outside of the City may be purchased if adequate credits cannot be found in the City or if they exceed the maximum price identified above. The economic and geographic analysis undertaken to inform the selection of GHG credits must be provided by the applicant to the City as part of the required documentation discussed below under Plan Implementation and Reporting.

Types of GHG Credits

GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project-generated emissions at any time. GHG credits from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated through a prorated surcharge of additional FMUs proportional to the effect of the delay. Because emissions of CO2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10 percent for every year

of lag between project emissions and their reduction through a FMU will be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 metric ton of project GHG emissions generated in the year prior to funding and implementation of the FMU).

Verification and Independent Review of GHG Credits
All GHG credits will be verified by an independent verifier accredited by the ANSI National Accreditation Board (ANAB) or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the accreditation board (i.e., ANAB or CARB), the verifier will certify the following.

- *GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR 95972. Verification of the latter requires certification that the credits meet or exceed the standards in 17 CCR 95972.*
- *GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.*
- *GHG credits are purchased according to the geographic prioritization standard defined in this measure under Geographic Prioritization of GHG Credits.*

Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that will result from future projects, additional verification must occur beyond initial certification is required. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification will examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. The applicant will retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project.

4.2-7(b) Prior to issuance of any grading or building permits, Project Grading and Building Plans shall demonstrate compliance with the following applicable measures included in the City's Climate Action Plan, to the satisfaction of the City of Elk Grove Community Development Department:

- *BE-4: The Project shall comply with 2019 CALGreen Tier 1 standards, including a 15 percent improvement over minimum Title 24, Part 6, Building Energy Efficiency Standards.*
- *BE-6: The Project shall require at least 10 percent of the proposed residential units to include exclusively electric appliances and HVAC systems.*
- *BE-7: The Project shall include rooftop solar PV panels.*

- *TACM-8: All off-road construction fleet used during construction of the Project shall include Environmental Protection Agency certified off-road Tier 4 diesel engines (or better).*

4.2-7(c) Implement Mitigation Measures 4.11-4.

4.2-8 Result in a cumulatively considerable inefficient or wasteful consumption of energy or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, the cumulative impact is *less than significant*.

Impact 4.2-5 discusses the energy demand on a Project-level within the context of existing State plans and regulations, as well as local plans. As discussed previously, the Project would involve consumption of diesel, gasoline, and electricity throughout construction and operations. However, all proposed structures would be built in compliance with existing statewide mandatory energy efficiency standards, such as those contained in the California Building Energy Efficiency Standards and the CALGreen Code. Compliance with the energy efficiency standards would reduce the amount of electricity consumed by the proposed development. State regulations would also help to reduce the amount of energy consumed by on-road vehicles over time. For instance, State and federal emissions standards and fuel economy standards result in increased fuel efficiency for on-road vehicles. Overall, as concluded above, the Project would result in a less-than-significant impact related to the inefficient or wasteful use of energy or conflicting with a State or local plan for renewable energy or energy efficiency.

Similar to the Project, all future development within the City of Elk Grove would be required to comply with applicable State and local regulations related to energy efficiency. Increased efficiency would be ensured in the future as cumulative development occurs due to compliance with the State's robust energy efficiency requirements. For example, the 2022 CBSC and the 2022 Building Energy Efficiency Standards require that newly constructed residential and non-residential buildings, including grocery stores, offices, financial institutions, unleased tenant space, retail space, schools, warehouses, auditoriums, convention centers, hotel/motels, libraries, medical office building/clinics, and theaters install a solar PV system. Furthermore, energy efficiency regulations have been getting progressively more stringent over time. Thus, as cumulative development occurs under the increasingly stringent regulations, the energy use associated with such cumulative development is anticipated to be increasingly energy efficient over time as well.

Based on the above, implementation of the Project, in combination with other cumulative development, would not result in the wasteful or inefficient use of energy. Because the Project would not conflict with a local plan to increase energy efficiency and reduce energy consumption, a ***less-than-significant*** cumulative impact would occur.

Mitigation Measure(s)

None required.

4.3 Biological Resources

4.3 BIOLOGICAL RESOURCES

4.3.1 INTRODUCTION

The Biological Resources chapter of the EIR evaluates the biological resources known to occur or potentially occur within the site and surrounding environs. The chapter describes the Project's potential impacts to biological resources and identifies measures to eliminate or substantially reduce impacts to a less-than-significant level. Existing plant communities, wetlands, wildlife habitats, and potential for special-status species and communities are discussed for the Project region. The information contained in the analysis is primarily based on a Biological Resources Assessment (BRA) (see Appendix D of this EIR)[1] prepared by Madrone Ecological Consulting (Madrone), an Arborist Report prepared by Acorn Arboricultural Services, Inc. (see Appendix E),[2] and a peer review of the aforementioned reports performed by Live Oak Associates, Inc. (LOA). In addition, information was sourced from the City of Elk Grove General Plan[3] and the associated General Plan EIR.[4]

4.3.2 EXISTING ENVIRONMENTAL SETTING

The following sections describe the regional biological setting in which the site is located, the biological setting of the site, and the special-status species and sensitive natural communities known to occur within the site and surrounding environs.

Regional Setting

The site is located at 9350 Sheldon Road, southeast of the intersection of Sheldon Road and Waterman Road, in the northeastern portion of the City in the Rural Area Community Plan. The City is located in the California Dry Steppe ecological province, which occurs on the flat alluvial plain between the Sierra Nevada and Coast Ranges in the Central Valley of California. The California Dry Steppe province is characterized by hot summers and mild winters with precipitation largely occurring during the winter months (November–February). The landscape consists of broad, flat valleys bordered by sloping alluvial fans, slightly dissected terraces, and the lower foothills of the surrounding mountain ranges.

The City experiences a Mediterranean type climate with cool, wet winters, and hot, dry summers. Temperatures in the Project region fluctuate from average highs in July of 93 degrees Fahrenheit, with average lows in December and January of 39 degrees Fahrenheit. Nearly all precipitation occurs between October and May in the form of rainfall, with February typically the wettest month, averaging 3.9 inches.[5]

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1 Madrone Ecological Consulting. *Biological Resources Assessment, Summer Villas, Elk Grove, Sacramento County, California*. September 2025.
2 Acorn Arboricultural Services, Inc. *Arborist Report and Tree Inventory Summary Summer Villas at Sheldon*. July 15, 2022.
3 City of Elk Grove. *General Plan.* Adopted February 2019. Amended December 13, 2023.
4 City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* February 2019.
5 Weather Spark. *Climate and Average Weather Year Round in Elk Grove*. Available at: https://weatherspark.com/y/1125/Average-Weather-in-Elk-Grove-California-United-States-Year-Round. Accessed May 2025.

The City of Elk Grove as a whole consists of a mix of urban, suburban, agricultural, and natural land cover types. Agricultural lands are divided into subcategories including cropland, irrigated pasture, vineyard, and orchard. Natural land covers include annual grasslands, mixed riparian scrub, mixed riparian woodland, valley oak riparian woodland, blue oak woodland, seasonal wetlands, vernal pools, freshwater marshes, open water, and streams.

Project Setting

The approximately 133.1-acre study area for the BRA consists of the 115.9-acre site and the off-site improvement area located along Sheldon Road and Waterman Road. The off-site improvement area incorporated in the study area includes the areas associated with the proposed construction of approximately 6,500 linear feet of off-site four- to six-inch diameter sewer force mains in Sheldon Road and Elk Grove Florin Road to support the Project, as well as the extension of water mains to either connect to an existing main in Waterman Road or near Elk Grove Florin Road. The foregoing off-site improvement areas would primarily be within existing disturbed areas and/or within existing roadway rights-of-way (ROW). Depending on the chosen alignment of the water line connection, a water main extension along the project's Sheldon Road ROW may be required, which would include a crossing either under Laguna Creek or attached to the existing Sheldon Road Bridge over Laguna Creek.

The BRA study area (study area) consists of slightly rolling, cattle grazed annual brome grasslands interspersed with seasonal wetlands and vernal pools. Laguna Creek winds through the approximate center of the northern portion, and runs in and out of the eastern boundary of the southern portion of the study area. A rural residence is located on-site in the northern portion of the study area, and high-tension power lines run through a broad corridor along the western boundary. Elevations on-site range from approximately 50 feet above mean sea level (amsl) to approximately 75 feet amsl along the western boundary. Surrounding existing uses include rural residences to the north, across Sheldon Road; undeveloped land and rural residences to the east; rural residences and a school to the southeast; rural residences to the west, across Waterman Road; and a non-profit horse rescue organization and estate residences to the south. In addition, the Elliot Springs Subdivision is currently under construction to the southwest.

The off-site portions of the study area run along Sheldon Road, Waterman Road, and Elk Grove Florin Road. The off-site improvement area is almost entirely comprised of paved roadways, but also includes slivers of rural residential, unvegetated, ruderal, and annual brome grassland. The majority of the aquatic resources in the off-site improvement area are roadside ditches and two small, constructed detention basins, but a portion of a vernal pool also occurs west of Waterman Road in the southern portion of the off-site improvement area. Elevations off-site range from approximately 45 feet amsl along Elk Grove Florin Road to approximately 80 feet amsl on the north end of Waterman Road. The off-site improvement area is largely bounded by rural residential, although the areas are adjacent to rural and estate residential uses on the western and northern edges.

The off-site improvement area associated with the proposed improvements to the existing roundabouts at the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections were not included within the BRA study area. Impacts under CEQA associated with development of the existing roundabouts were addressed through separate Mitigated Negative Declarations previously prepared for the Sheldon Road/Waterman Road Intersection Improvements Project and the Sheldon Road/Bradshaw Road Intersection Improvements Project

in 2015.[6,7] Under existing conditions, both intersections consist of multi-lane roundabouts that may be approached from the north, south, east, and west, and include a vegetated central island. The foregoing off-site improvement areas would primarily be within existing disturbed areas and/or within existing roadway ROW. However, a culvert across a Laguna Creek tributary currently exists at the Sheldon Road/Bradshaw Road intersection.

Terrestrial Land Covers

The majority of the study area is comprised of annual brome grassland (see Figure 4.3-1 through Figure 4.3-6 and Table 4.3-1), with the remainder of the study area comprised of urban-associated landcovers. Areas mapped as "Road" on Figure 4.3-1 through Figure 4.3-6 are paved roadways, and a number of areas adjacent to the paved roadways are mapped as "Unvegetated," as the areas appear to be regularly maintained to be free of vegetation. "Ruderal" areas support scattered non-native forbs, such as filaree (*Erodium botrys*), Russian thistle (*Salsola tragus*), and stinkwort (*Dittrichia graveolens*). Lastly, "Rural Residential" areas were mapped where the landcover was comprised of residential buildings and associated improvements such as driveways and maintained landscaping.

The annual brome grassland is primarily dominated by non-native annual grass species including soft chess (*Bromus hordeaceus*), Mediterranean barley (*Hordeum marinum*), and ryegrass (*Festuca perennis*). Common forb species within the annual brome grassland habitat include hairy hawkbit (*Leontodon saxatilis*), subterraneum clover (*Trifolium subterraneum*), cut leaf geranium (*Geranium dissectum*), and filaree (*Erodium botrys*). Immediately along Laguna Creek and its tributary, the annual brome grassland is interspersed with scattered native riparian vegetation, including Oregon ash (*Fraxinus latifolia*), California button willow (*Cephalanthus occidentalis*), Santa Barbara sedge (*Carex barbarae*), and western goldenrod (*Euthamia occidentalis*), as well as non-native species that often invade riparian areas, including Southern catalpa (*Catalpa bignonioides*), rattlebox (*Sesbania punicea*), eucalyptus (*Eucalyptus* sp.), and Himalayan blackberry (*Rubus armeniacus*). Scattered valley oak (*Quercus lobata*) trees occur along the northern boundary adjacent to Sheldon Road. One small area of a heavy clay inclusion was located near the southeast corner of the study area that was dominated by sparse, low-growing forbs, such as Douglas' microseris (*Microseris douglasii*), hairy hawkbit, South American soliva (*Soliva sessilis*), and filaree. The annual brome grasslands were moderately grazed.

Aquatic Resources

Aquatic resources mapped within the study area are shown on Figure 4.3-1 through Figure 4.3-6. Table 4.3-2 provides the acreage of each aquatic resource located within the study area.

[6] City of Elk Grove. *Sheldon Road/Waterman Road Intersection Improvement Project [SCH# 2015112015].* November 9, 2015.

[7] City of Elk Grove. *Sheldon Road/Bradshaw Road Intersection Improvement Project [SCH# 2015122013].* December 4, 2015.

Figure 4.3-1
Terrestrial Vegetation Communities and Aquatic Resources in the Study Area (1 of 6)

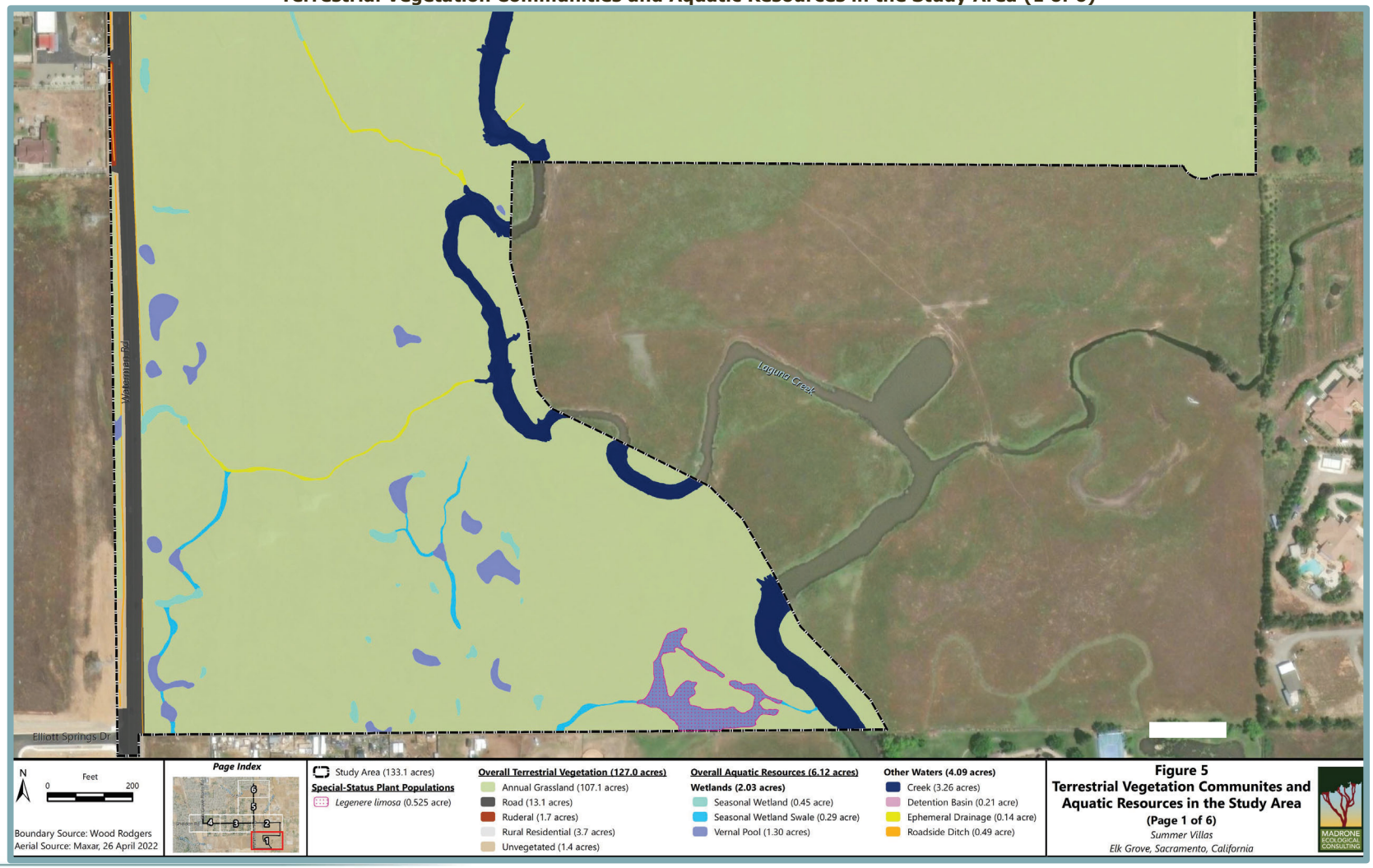


*Figure not OCR compatible.

Figure 4.3-2
Terrestrial Vegetation Communities and Aquatic Resources in the Study Area (2 of 6)

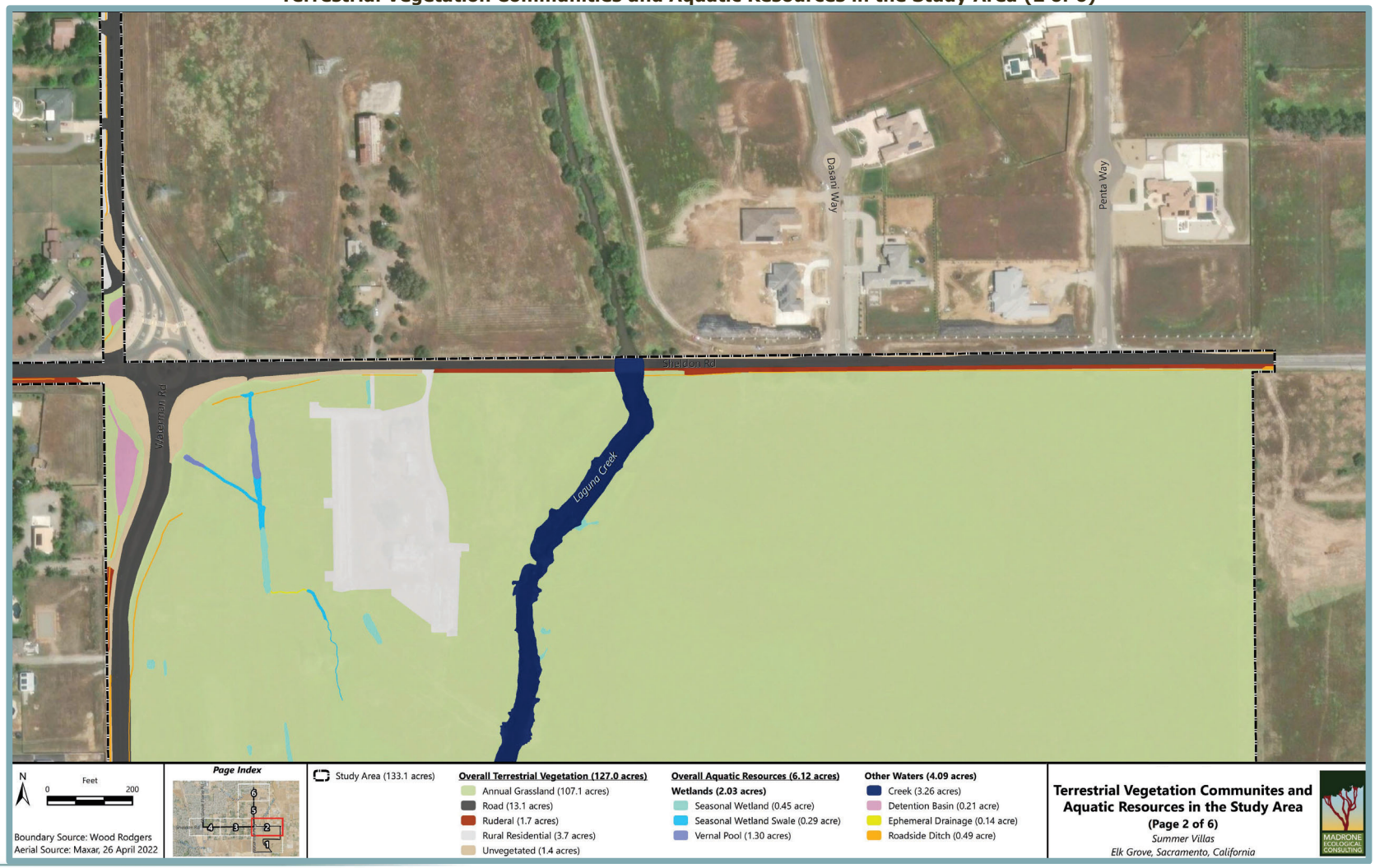


*Figure not OCR compatible.

Figure 4.3-3
Terrestrial Vegetation Communities and Aquatic Resources in the Study Area (3 of 6)

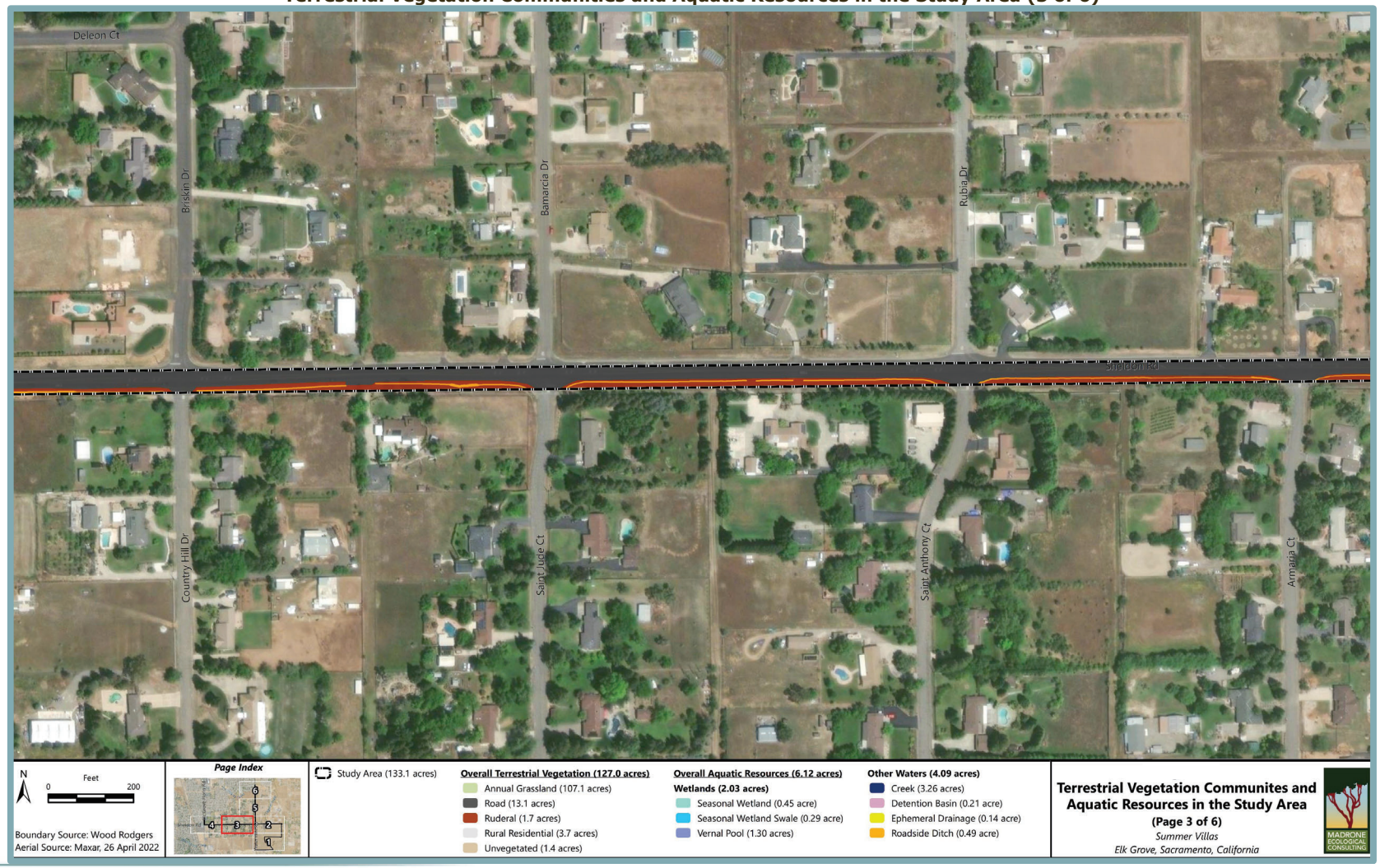


*Figure not OCR compatible.

Figure 4.3-4
Terrestrial Vegetation Communities and Aquatic Resources in the Study Area (4 of 6)

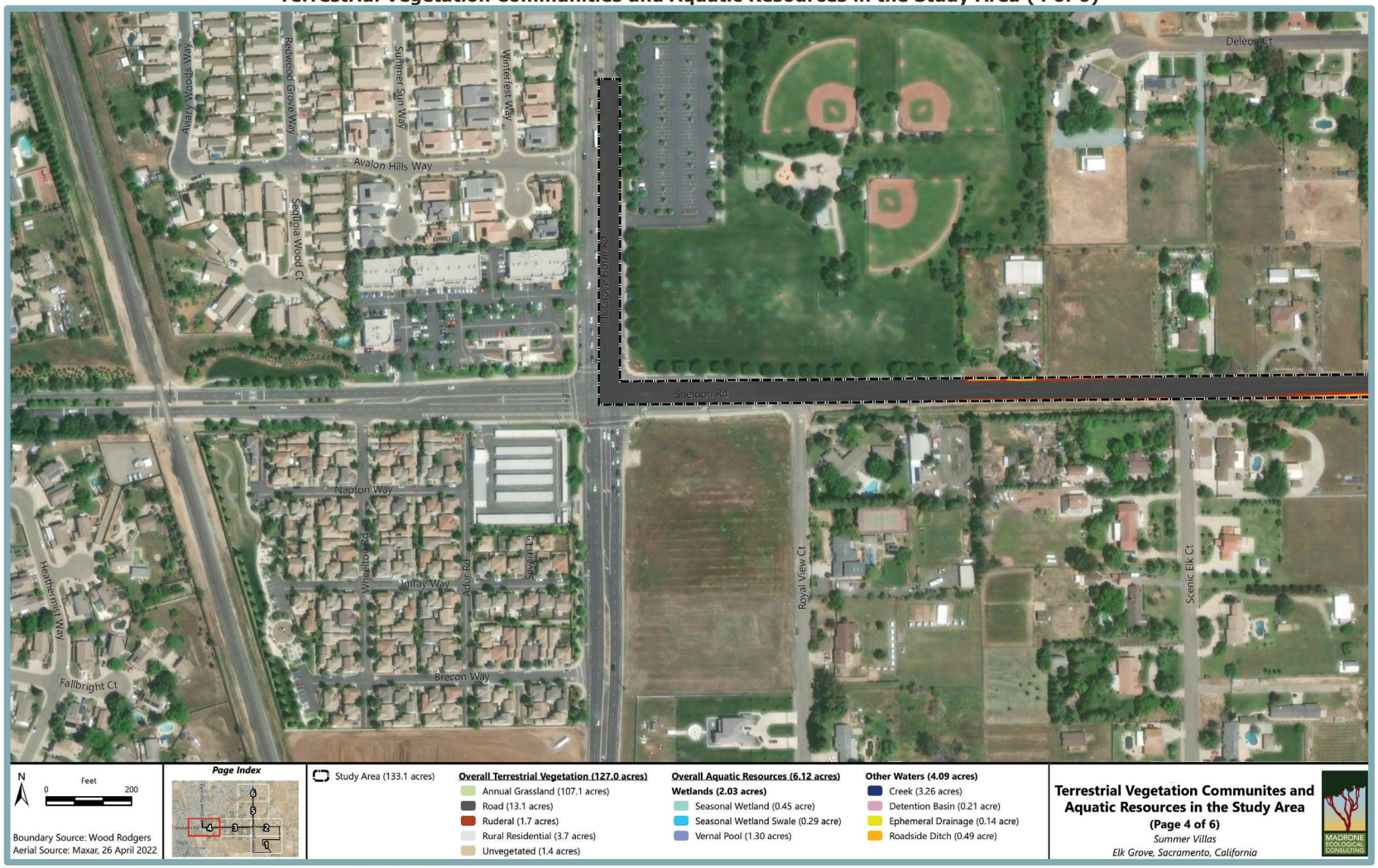


*Figure not OCR compatible.

Figure 4.3-5
Terrestrial Vegetation Communities and Aquatic Resources in the Study Area (5 of 6)

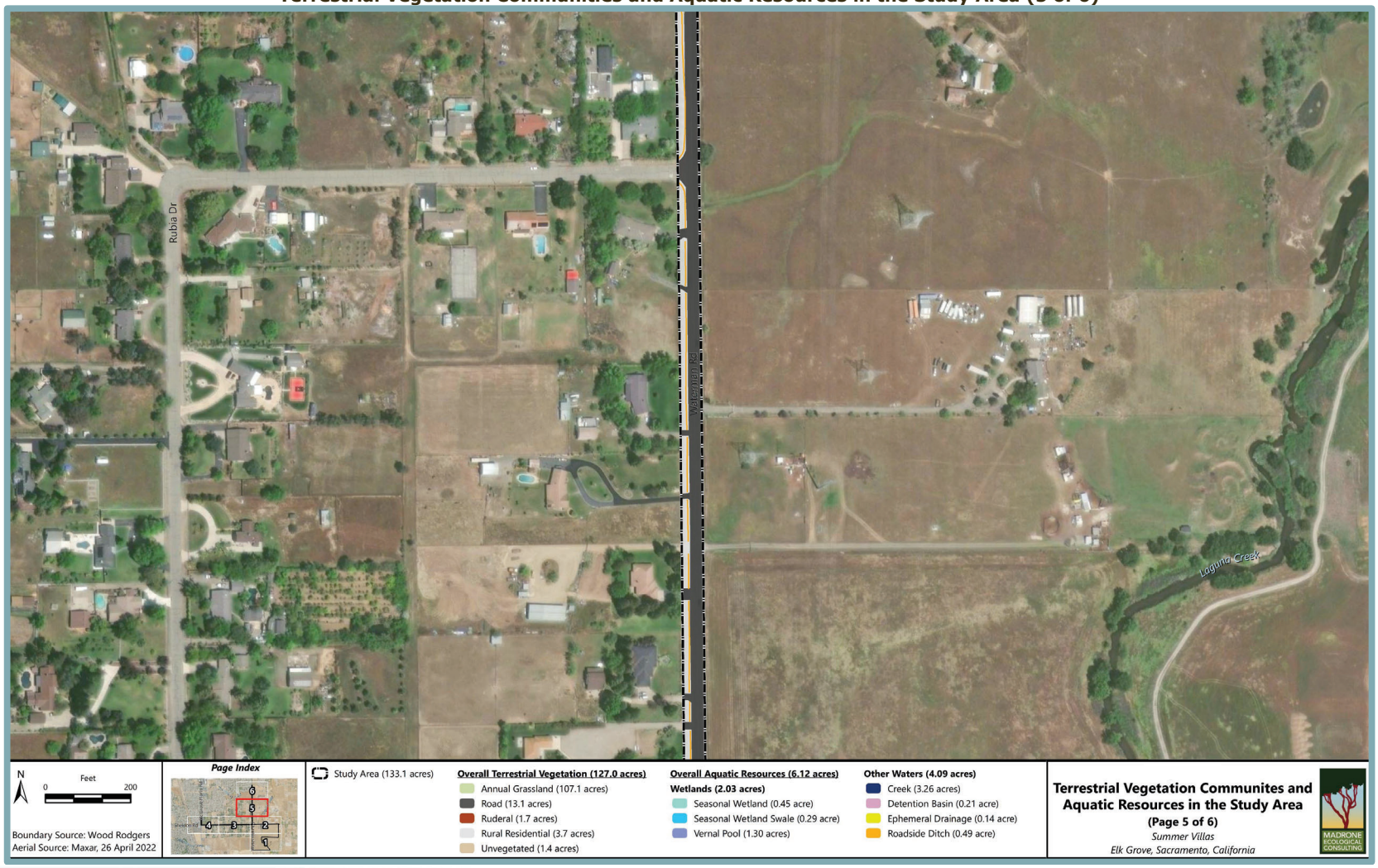


*Figure not OCR compatible.

Figure 4.3-6
Terrestrial Vegetation Communities and Aquatic Resources in the Study Area (6 of 6)

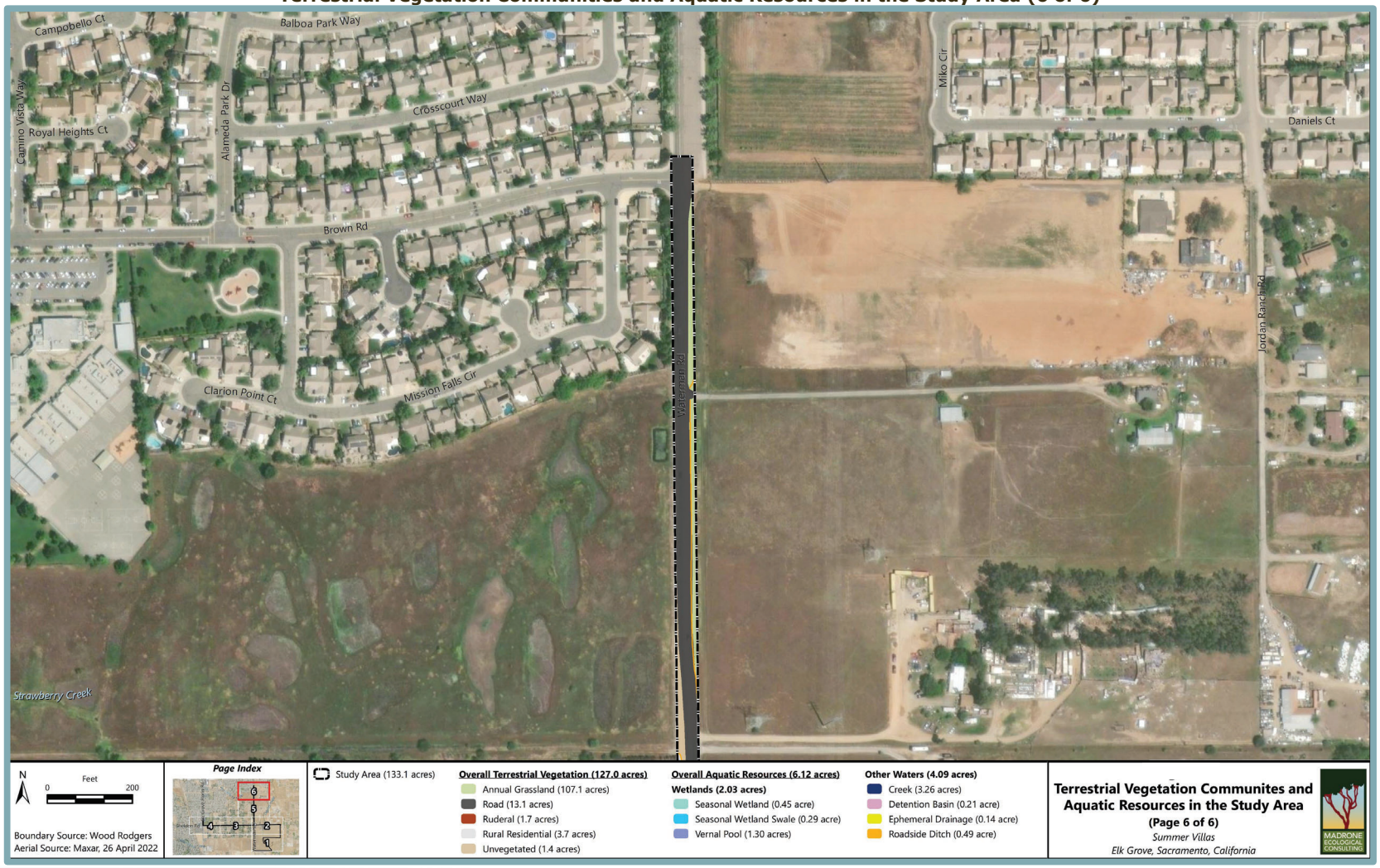


*Figure not OCR compatible.

Table 4.3-1
Terrestrial Land Covers within the Study Area

Land Covers/Vegetation Communities	Acres
Annual Brome Grassland	107.1
Road	13.2
Ruderal	1.7
Rural Residential	3.7
Unvegetated	1.4
Total	**127.0***

Notes:
Small summation errors may occur due to rounding.
* The remaining 6.12 acres within the study area are comprised of aquatic resources.

Source: Madrone Ecological Consulting, 2025.

Table 4.3-2
Aquatic Resources Within the Study Area

Resource Type	Acreage
Wetlands	
Seasonal Wetland	0.45
Seasonal Wetland Swale	0.29
Vernal Pool	1.30
Other Waters	
Laguna Creek	3.26
Detention Basin	0.21
Ephemeral Drainage	0.14
Roadside Ditch	0.49
Total	**6.12**

Note: Small summation errors may occur due to rounding.

Source: Madrone Ecological Consulting, 2025.

As shown in the table, a total of approximately 6.12 acres of aquatic resources were delineated within the study area in accordance with the U.S. Army Corps of Engineers (USACE) Sacramento District's Minimum Standards for Acceptance of Preliminary Wetlands Delineations.

The aquatic resources delineation of the on-site areas was verified by the USACE with a Preliminary Jurisdictional Determination (PJD).[8] Because the full extent or design of the off-site improvements are not available at this time, the aquatic resources within the off-site improvement areas have not been submitted to the USACE for verification to date, as the USACE would not provide a verification until such time the design is available. A detailed description of each aquatic resource identified in the study area is provided below.

Seasonal Wetland

Seasonal wetlands are depressional wetlands that pond water seasonally. Seasonal wetland features are often topographically and hydrologically similar to vernal pools, but have a short hydroperiod, and as a result, support a slightly different plant community that is not characterized by a dominance of vernal pool endemics. The seasonal wetlands within the study area are largely

[8] U.S. Army Corps of Engineers, Sacramento District. *Preliminary Jurisdictional Determination. SPK-1990-01278.* May 26, 2023.

dominated by ryegrass, Mediterranean barley, hyssop loosestrife (*Lythrum hyssopifolia*), toad rush (*Juncus bufonius*), and great valley popcornflower (*Plagiobothrys stipitatus*).

Seasonal Wetland Swale

Seasonal wetland swales are sloping, linear seasonal wetlands that convey surface runoff, and may detain it for short periods of time. The most common plants occurring within the wetland swales include ryegrass and Mediterranean barley.

Vernal Pool

Vernal pools are topographic basins that are underlain with an impermeable or semi-permeable hardpan or duripan layer. They are inundated during the wet season, and typically dry by late spring, remaining dry through the summer months. Vernal pools are differentiated from depressional seasonal wetlands based upon the predominance of vernal pool endemic plant species. The vernal pools were dominated by vernal pool buttercup (*Ranunculus bonariensis*), Mediterranean barley, and great valley popcornflower. Longer ponding vernal pools also supported creeping spikerush (*Eleocharis macrostachya*), California damasonium (*Damasonium californicum*), and bractless hedge-hyssop (*Gratiola ebracteata*).

Laguna Creek

The study area includes a portion of Laguna Creek and a portion of one of its tributaries. Laguna Creek is one of the primary creek corridors in southern Sacramento County. Historically, Laguna Creek and its tributaries were dry for much of the year, but agricultural and urban runoff have increasingly caused major sections to flow year-round, including the portions that run through the study area. Urbanization along other portions of Laguna Creek has led to issues with minor flooding along the more developed portions of the creek. Laguna Creek supports a mostly unvegetated rocky bottom with the creek margins dominated by the same species as found in the adjacent annual brome grassland, interspersed with scattered native riparian vegetation, including Oregon ash, California button willow, Santa Barbara sedge, and western goldenrod, as well as non-native species that often invade riparian areas, including Southern catalpa, rattlebox, eucalyptus, and Himalayan blackberry.

Detention Basin

The study area includes two small, constructed detention basins located within the off-site portion of the study area, both adjacent to the Sheldon Road/Waterman Road intersection.

Ephemeral Drainage

Ephemeral drainages are linear features that exhibit a bed and bank and an Ordinary High Water Mark (OHWM). Ephemeral drainages typically convey runoff for short periods of time, during and immediately following rain events, and are not influenced by groundwater sources at any time during the year. Four ephemeral drainages occur in the western portion of the study area within the annual brome grassland. Ephemeral drainages are vegetated by annual grasses species including ryegrass, Mediterranean barley, and annual blue grass (*Poa annua*).

Roadside Ditch

Several roadside ditches run along the northern edge of the study area, on the southern edge of Sheldon Road. Additional roadside ditches occur along the western edge of the study area, east of Waterman Road. The ditches are partially graveled and show sign of herbicide use nearby. Ruderal vegetation is present with dominants including turkey-mullein (*Croton setiger*), spotted spurge (*Euphorbia maculata*), and filaree.

Special Lands

The study area is not within the primary or secondary zones of the Sacramento-San Joaquin Delta. The study area does not support critical habitat for any federally listed species, and the City of Elk Grove is not a participant in the South Sacramento Habitat Conservation Plan (HCP).

Special-Status Species

Special-status species are species that have been listed as threatened or endangered under the federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA), that are "fully protected" under various California statutes (i.e., Fish and Game Code sections 3511, 4700, 5050, and 5515), that are protected under federal law (e.g., the federal Bald and Golden Eagle Protection Act), or that are of special concern to federal resource agencies, the State, or (in one instance) a private conservation organization, the California Native Plant Society (CNPS). A species may be considered to have special status due to declining populations, vulnerability to habitat change, or restricted distributions. A general description of the criteria and laws pertaining to special-status classifications is described below. Special-status plant and wildlife species may meet one or more of the following criteria:

1. Listed as threatened or endangered, or proposed or candidates for listing by the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS);
2. Listed as threatened or endangered and candidates for listing by the California Department of Fish and Wildlife (CDFW);
3. Identified as Fully Protected species or Species of Special Concern by CDFW;
4. Identified as Medium or High priority species by the Western Bat Working Group (WBWG); and
5. Plant species considered to be rare, threatened, or endangered in California by CNPS and CDFW (California Rare Plant Rank [CRPR] 1, 2, and 3):
    a. CRPR 1A: Plants presumed extinct.
    b. CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
    c. CRPR 2A: Plants extirpated in California, but common elsewhere.
    d. CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
    e. CRPR 3: Plants about which the CNPS needs more information – a review list.

According to the records of the California Natural Diversity Database (CNDDB), maintained by the CDFW, 23 special-status plant species and 23 special-status wildlife species have the potential to occur on or within five miles of the study area. Table 4.3-3 lists all special-status species with potential to occur in the vicinity of the study area. As part of determining the potential for special-status plant and wildlife species to occur within the study area, the following set of criteria was used:

- Present: Species occurs within the study area based on CNDDB records and/or was observed within the study area during the field surveys;
- High: The study area is within the known range of the species and suitable habitat exists within the study area;
- Moderate: The study area is within the known range of the species and very limited suitable habitat exists within the study area;
- Low: The study area is within the known range of the species and marginally suitable habitat exists within the study area or the species was not observed during protocol-level surveys conducted within the study area;



- Habitat Not Present: The study area does not contain suitable habitat for the species or the site is outside the known range of the species; or
- Absent: At least marginally suitable habitat is present, but the species was not observed during protocol-level special status plant surveys conducted within the study area.

Listed and Special-Status Plant Species

As stated above, according to the records of the CNDDB, 23 special-status plant species have the potential to occur on or within five miles of the study area, seven of which have been documented within five miles of the study area (see Figure 4.3-7). As shown in Table 4.3-3, based on protocol-level special-status plant surveys, literature review (detailed further in this chapter under the Method of Analysis subsection), and Madrone's experience and local knowledge in the area, 10 of the 23 special-status plant species were determined to have potential to occur within the study area.

In addition, based on protocol-level surveys, legenere is present in the study area. The locations of special-status plant species observed within or adjacent to the study area during protocol-level surveys are shown in Figure 4.3-7. The following discussions provide further details of the 11 special-status plant species with potential or known to occur within the study area.

Big-Scale Balsamroot

Big-scale balsamroot (*Balsamorhiza macrolepis*) is not federally or State listed, but is classified as a CRPR List 1B.2 plant. Big-scale balsamroot is a perennial herbaceous species that occurs in chaparral, cismontane woodland and valley and foothill grasslands between 150 and 5,100 feet. Big-scale balsamroot blooms from March through June and may be found on serpentine soils, though the species is known to grow on other soil types as well. The annual brome grassland throughout the study area represents suitable habitat for the species. The species was not observed during the 2024 protocol-level special status plant surveys of the study area. However, based on Madrone's experience and local knowledge in the area, big-scale balsamroot has *low* potential for occurrence within the study area.

Bristly Sedge

Bristly sedge (*Carex comosa*) is not federally or State listed, but is classified as a CRPR List 2B.1 plant. Bristly sedge is a perennial herbaceous species that occurs in marshes and swamps along lake margins in coastal prairie and valley and foothill grasslands between sea level and 2,050 feet. Bristly sedge blooms from March through September. The edges of Laguna Creek within the study area provide marginal habitat for the species. The species was not observed during the 2024 protocol-level special status plant surveys of the study area. Although the species was not a target for the survey, the survey was floristic in nature and conducted during the identifiable period for bristly sedge; as such, if present, the species would have been documented. The species has not been documented within five miles of the study area in the CNDDB. Based on the above, bristly sedge is *absent* within the study area.

Dwarf Downingia

Dwarf downingia (*Downingia pusilla*) is not federally or State listed, but is classified as a CRPR List 1B.2 plant. Dwarf downingia is a diminutive annual herb that is strongly associated with vernal pools and other seasonally inundated features at elevations ranging from sea level to approximately 1,500 feet. Dwarf downingia is typically associated with areas that experience a moderate degree of disturbance, and the species blooms from March to May.

Figure 4.3-7
California Natural Diversity Database Occurrences of Special-Status Plant Species

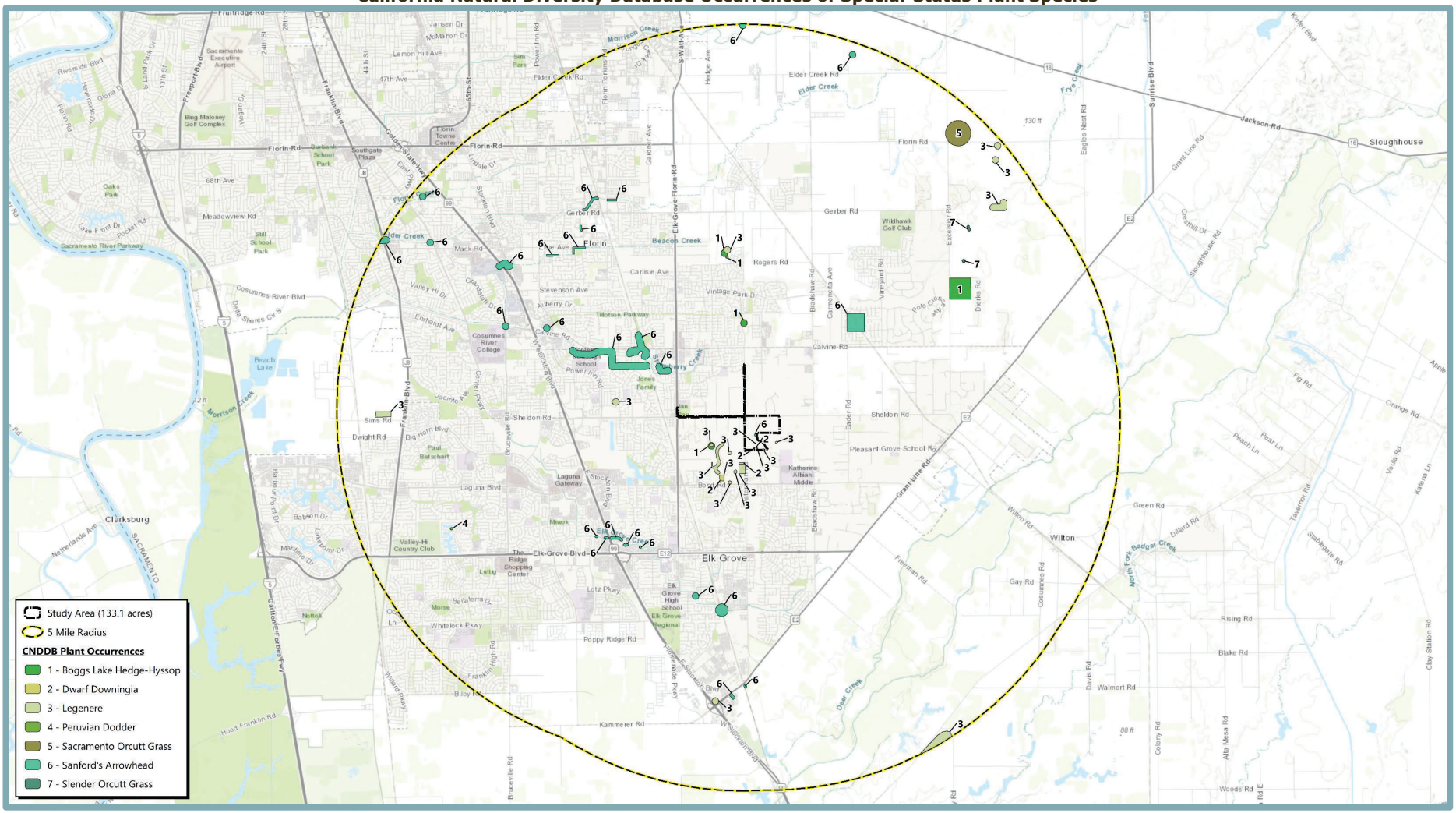


Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Plants				
Balsamorhiza macrolepis Big-scale balsamroot	--	CRPR 1B.2	Prefers chaparral, cismontane woodland, and valley and foothill grasslands between 150 and 5,100 feet. Often associated with serpentine soils.	**Low**. Based on Madrone's experience and local knowledge in the area, marginally suitable habitat for the species occurs within annual brome grasslands throughout the study area. The species plant was not found during protocol surveys of the site in 2024 and is considered absent from the site. However, small slivers of grassland in the off-site improvement area have not yet been surveyed, and the species has low potential to occur in the off-site improvement area.
Brasenia schreberi Watershield	--	CRPR 2B.3	Occurs in freshwater marshes and swamps at elevations between zero and 7,220 feet.	**Habitat Not Present**. The study area does not support habitat for the species. Although Laguna Creek ponds, the creek does not move slowly enough to support the species.
Calycadenia spicata Spicate rosinweed	--	CRPR 1B.3	Occurs in disturbed areas and openings in cismontane woodland and annual grassland at elevations between 130 and 4,600 feet. Often associated with adobe clay, gravelly areas, rock outcrops and mine tailings.	**Habitat Not Present**. The study area is outside of the elevational range of the species.
Carex comosa *Bristly sedge*	--	CRPR 2B.1	Occurs in freshwater marshes or other wet habitats at elevations between zero and 2,050 feet.	**Absent**. Marginally suitable habitat for the species occurs along Laguna Creek within the study area. The species was not found during protocol surveys of the site in 2024. Although the species was not a target of the survey, the survey was floristic in nature and would have detected the species.
Cicuta maculata var. *bolanderi* Bolander's water-hemlock	--	CRPR 2B.1	Occurs in coastal, fresh, or brackish marshes and swamps at elevations between zero and 656 feet.	**Habitat Not Present**. The study area does not support habitat for the species. Laguna Creek does not support marsh vegetation along its edges.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Cuscuta obtusiflora var. *glandulosa* Peruvian dodder	--	CRPR 2B.2	Occurs in freshwater marshes and swamps at elevations between 50 and 920 feet.	**Habitat Not Present**. The study area does not support habitat for the species. Laguna Creek does not support marsh vegetation along its edges.
Downingia pusilla Dwarf downingia	--	CRPR 2B.2	Occurs in mesic areas in valley and foothill grassland and vernal pools at elevations between three and 1,460 feet.	**High**. Suitable habitat is present in seasonal wetlands, seasonal wetland swales, and vernal pools within the study area. The species was not found during protocol surveys of the site in 2024 and is considered absent from the site. One vernal pool that represents suitable habitat in the off-site improvement area has not yet been surveyed, and the species has high potential to occur in the vernal pool based on Madrone's experience and local knowledge in the area.
Gratiola heterosepala Bogg's Lake hedge-hyssop	--	CE, CRPR 1B.2	Occurs in vernal pools and along the margins of lakes/ponds on clay soils. Occurs at elevations between 35 feet and 7,790 feet.	**High**. Suitable habitat is present in seasonal wetlands, seasonal wetland swales, and vernal pools within the study area. The species was not found during protocol surveys of the site in 2024 and is considered absent from the site. One vernal pool that represents suitable habitat in the off-site improvement area has not yet been surveyed, and the species has high potential to occur in the vernal pool based on Madrone's experience and local knowledge in the area.
Hibiscus lasiocarpos var. *occidentalis* Wooly rose-mallow	--	CRPR 1B.2	Occurs in freshwater wetlands/marshes, including edges. Often in riprap on sides of levees, but has also been found in detention basins. Found in elevations between sea level and 395 feet.	**Absent**. The banks of Laguna Creek represent marginally suitable habitat for the species. The species was not found during protocol surveys of the site in 2024. Although the species was not a target of the survey, the survey was floristic in nature and would have detected the species.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Juncus leiospermus var. *ahartii* Ahart's dwarf rush	--	CRPR 1B.2	Occurs along the edges of vernal pools and other seasonally ponded feature at elevations between 100 and 750 feet.	**High**. Suitable habitat is present in seasonal wetlands, seasonal wetland swales, and vernal pools within the study area. The species was not found during protocol surveys of the site in 2024 and is considered absent from the site. One vernal pool that represents suitable habitat in the off-site improvement area has not yet been surveyed, and the species has high potential to occur in the vernal pool based on Madrone's experience and local knowledge in the area.
Lasthenia chrysantha Alkali-sink goldfields	--	CRPR 1B.1	Occurs in alkaline vernal pools at elevations between zero and 655 feet.	**Habitat Not Present**. The study area does not support alkaline soils.
Lathyrus jepsonii var. *jepsonii* Delta tule pea	--	CRPR 1B.2	Prefers tidally influenced channels, brackish marshes, and swamps below 15 feet in elevation.	**Habitat Not Present**. The study area does not support habitat for the species and is outside of the elevational range.
Legenere limosa Legenere	--	CRPR 1B.1	Occurs in vernal pools at elevations between five and 2,885 feet.	**Present**. The species was observed in a vernal pool within the site during protocol surveys in 2024. One vernal pool that represents suitable habitat in the off-site improvement area has not yet been surveyed, and the species has high potential to occur in the vernal pool based on Madrone's experience and local knowledge in the area.
Lepidium latipes var. *heckardii* Heckard's pepper-grass	--	CRPR 1B.2	The annual species prefers valley and foothill grasslands with alkaline soils.	**Habitat Not Present**. The study area does not support alkaline soils.
Lilaeopsis masonii Mason's lilaeopsis	--	CR, CRPR 1B.1	Prefers brackish or freshwater swamps, intertidal marshes, and riparian scrub at or below elevations of 35 feet.	**Habitat Not Present**. The study area does not support habitat for the species and is outside of the elevational range.
Limosella australis Delta mudwort	--	CRPR 2B.1	Prefers freshwater and brackish marshes, swamps, or riparian scrub. Usually found in association with muddy banks in the Delta. Occurs at elevations between zero and 10 feet.	**Habitat Not Present**. The study area does not support habitat for the species and is outside of the elevational range.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Orcuttia tenuis Slender Orcutt grass	FT	CE, CRPR 1B.1	Occurs in vernal pools and other seasonally ponded features at elevations between 115 and 5,775 feet.	**Low**. Suitable habitat is present in seasonal wetlands, seasonal wetland swales, and vernal pools within the study area. The species was not found during protocol surveys of the site in 2024 and is considered absent from the site. One vernal pool that represents suitable habitat in the off-site improvement area has not yet been surveyed, and the species has low potential to occur in the vernal pool based on Madrone's experience and local knowledge in the area.
Navarretia myersii ssp. *myersii* Pincushion navarretia	--	CRPR 1B.1	Occurs in vernal pools (often acidic) at elevations between 65 feet and 1,085 feet.	**High**. Suitable habitat is present in seasonal wetlands, seasonal wetland swales, and vernal pools within the study area. The species was not found during protocol surveys of the site in 2024 and is considered absent from the site. One vernal pool that represents suitable habitat in the off-site improvement area has not yet been surveyed, and the species has high potential to occur in the vernal pool based on Madrone's experience and local knowledge in the area.
Orcuttia viscida Sacramento Orcutt grass	FE	CE, CRPR 1B.1	Occurs in vernal pools at elevations between 100 and 330 feet.	**Low**. Suitable habitat is present in seasonal wetlands, seasonal wetland swales, and vernal pools within the study area. The species was not found during protocol surveys of the site in 2024 and is considered absent from the site. One vernal pool that represents suitable habitat in the off-site improvement area has not yet been surveyed, and the species has low potential to occur in the vernal pool based on Madrone's experience and local knowledge in the area.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Sagittaria sanfordii Sanford's arrowhead	--	CRPR 1B.2	Occurs in emergent marsh habitat, typically associated with drainages, canals, or irrigation ditches, at elevations between zero and 2,135 feet.	**Absent**. Laguna Creek represents suitable habitat for the species. Protocol-level surveys of the site in 2024 did not detect the species.
Scutellaria galericulata Marsh skullcap	--	CRPR 2B.2	Occurs in lower montane coniferous forest, marshes, swamps, and mesic meadows and seeps at elevations between zero and 6,890 feet.	**Habitat Not Present**. The study area does not support habitat for the species. The edges of Laguna Creek do not support marsh vegetation.
Scutellaria lateriflora Side-flowering skullcap	--	CRPR 2B.2	Occurs in freshwater marshes or other wet habitats at elevations between zero and 10 feet. Known in California only from the tidally influenced Sacramento San Joaquin Delta.	**Habitat Not Present**. The study area does not support habitat for the species and is outside of the elevational range.
Trifolium hydrophilum Saline clover	--	CRPR 1B.2	Occurs in marshes, swamps, and vernal pools with alkaline soils at elevations between sea level and 985 feet.	**Habitat Not Present**. The study area does not support alkaline soils.
Invertebrates				
Bombus crotchii Crotch's bumble bee	--	CC	Occurs in open grasslands and scrub habitats.	**High**. Based on Madrone's experience and local knowledge in the area, the annual grasslands could support suitable foraging flower populations.
Branchinecta lynchi Vernal pool fairy shrimp	FT	--	Occurs in vernal pools.	**High**. Based on Madrone's experience and local knowledge in the area, vernal pools and seasonal wetlands within the study area provide suitable habitat for the species. The species has been observed adjacent to the off-site improvement area (CNDDB 2024).
Danaus plexippus Monarch butterfly	PT	--	A migratory species that is most prevalent in the Central Valley in summer and early fall. Dependent upon milkweed (*Asclepias* species) plants as their exclusive larval host.	**Low**. Scattered individual milkweed plants are present within the study area. Monarch butterflies or caterpillars were not observed at the time of special-status plant survey.

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Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Desmocerus californicus dimorphus Valley elderberry longhorn beetle (VELB)	FT	--	Dependent upon elderberry *(Sambucus* species) shrubs as primary host species.	**Habitat Not Present.** Elderberry shrubs do not occur within the study area.
Lepidurus packardi Vernal pool tadpole shrimp	FE	--	Occurs in vernal pools.	**High**. Based on Madrone's experience and local knowledge in the area, vernal pools and seasonal wetlands in the study area provide suitable habitat for the species.
Fish				
Oncorhynchus mykiss irideus Central Valley steelhead	FE	--	Anadromous species requiring freshwater water courses with gravelly substrates for breeding. The young remain in freshwater areas before migrating to estuarine and marine environments.	**Habitat Not Present**. Downstream migration barriers preclude salmonid access to the portion of Laguna Creek that runs through the study area.
Amphibians				
Spea hammondii Western spadefoot toad	PT	CSC	Breeds in vernal pools, seasonal wetlands, and associated swales. Forages and hibernates in adjacent grasslands.	**High**. Based on Madrone's experience and local knowledge in the area, the long-duration seasonal wetlands and vernal pools within the study area represent suitable habitat for the species.
Reptiles				
Actinemys marmorata Northwestern pond turtle	PT	CSC	Occurs in ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	**High**. Based on Madrone's experience and local knowledge in the area, Laguna Creek represents suitable habitat for the species. Turtles were observed within Laguna Creek in 2024, but the species of the turtles could not be identified.
Thamnophis gigas Giant garter snake	FT	CT	Occurs in rivers, canals, irrigation ditches, rice fields, and other aquatic habitats with slow-moving water and heavy emergent vegetation.	**Habitat Not Present**. A Giant Garter Snake Habitat Assessment for the species was conducted within the site where potential habitat occurs. The assessment concluded that Laguna Creek does not represent suitable habitat for the species (see Attachment F of the BRA).

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Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Birds				
Agelaius tricolor Tricolored blackbird	--	CE, CSC	Colonial nester in cattails, bulrush, or blackberries associated with marsh habitats.	**High**. Based on Madrone's experience and local knowledge in the area, the annual brome grassland provides suitable foraging habitat for the species.
Aquila chrysaetos Golden eagle	--	CFP	Forages in open areas including grasslands, savannahs, deserts, and early successional stages of shrub and forest communities. Nests in large trees and cliffs.	**Low**. Based on Madrone's experience and local knowledge in the area, the study area lacks suitable nesting habitat. The study area is surrounded by rural residential development, and while annual grassland provides suitable foraging habitat, the species is unlikely to forage in the study area.
Athene cunicularia Burrowing owl	--	CSC	Nests in abandoned ground squirrel burrows associated with open grassland habitats.	**Low**. Ground squirrel burrows were not observed within the study area, but, based on Madrone's experience and local knowledge in the area, marginally suitable burrow habitat may be present in debris scattered around the study area.
Buteo swainsoni Swainson's hawk	--	CT	Nests in large trees, preferably in riparian areas. Forages in fields, cropland, irrigated pasture, and grassland near large riparian corridors.	**High**. Based on Madrone's experience and local knowledge in the area, the annual brome grassland throughout the study area represents suitable foraging habitat for Swainson's hawk, and the trees within and adjacent to the study area provide suitable nesting habitat.
Circus cyaneus Northern harrier	--	CSC	Nests in emergent wetland/marsh, open grasslands, or savannah habitats. Forages in open areas such as marshes, agricultural fields, and grasslands.	**High**. Based on Madrone's experience and local knowledge in the area, the annual brome grassland throughout the study area provide suitable foraging habitat for the species. Suitable nesting habitat does not occur within the study area.
Elanus leucurus White-tailed kite	--	CFP	Open grasslands, fields, and meadows are used for foraging. Isolated trees in close proximity to foraging habitat are used for perching and nesting.	**High**. Based on Madrone's experience and local knowledge in the area, the annual brome grassland throughout the study area represents suitable foraging habitat for white-tailed kite,

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
				and the trees within and adjacent to the study area provide suitable nesting habitat.
Haliaeetus leucocephalus Bald eagle	FD	CE	Nests in large trees within one mile of lakes, rivers, or larger streams.	**Habitat Not Present**. Laguna Creek does not represent foraging habitat for bald eagle due to its small size, intermittent nature, and lack of large fish. Suitable nesting trees are not present.
Lanius ludovicianus Loggerhead shrike	--	CSC	Occurs in open areas with sparse trees, shrubs, and other perches.	**High**. Based on Madrone's experience and local knowledge in the area, the annual brome grassland throughout the study area represents suitable foraging habitat for loggerhead shrike. Trees and shrubs within and adjacent to the study area provide suitable nesting habitat.
Mammals				
Antrozous pallidus Pallid bat	--	CSC, WBWG H	Inhibits low elevation (<6,000 feet) rocky, arid deserts and canyonlands, shrub-steppe grasslands, karst formations, and higher elevation (>7,000 feet) coniferous forests. Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., bole cavities of oaks, exfoliating valley oak bark), and various human structures, such as bridges, barns, porches, bat boxes, and human-occupied, as well as vacant buildings.	**Moderate**. Based on Madrone's experience and local knowledge in the area, limited suitable roosting habitat for the species may be present in the residence within the site, and in the trees throughout the study area.
Corynorhinus townsendii Townsend's big-eared bat	--	CSC, WBWG H	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of coast redwoods and giant sequoias. Extremely sensitive to human disturbance.	**Low**. Based on Madrone's experience and local knowledge in the area, marginally suitable habitat may be present in abandoned or infrequently used buildings around the existing residence.
Lasionycteris noctivagans Silver-haired bat	--	WBWG M	Roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. The silver-haired bat forages in open wooded areas near water features.	**High**. Based on Madrone's experience and local knowledge in the area, suitable roosting habitat for the species is present in trees scattered throughout the study area, particularly along the off-site improvement areas.

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Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Lasiurus blossevillii Western red bat	--	CSC, WBWG H	Requires large leaf trees, such as cottonwoods, willows, and frit/nut trees for daytime roosts. Often associated with wooded habitats that are protected from above and open below. Often found in association with riparian corridors. Requires open space for foraging.	**High**. Based on Madrone's experience and local knowledge in the area, trees scattered throughout the study area, particularly along the off-site improvement areas, may provide suitable roosting habitat for the species.
Lasiurus cinereus Hoary bat	--	WBWG M	Roosts primarily in foliage of both coniferous and deciduous trees at the edges of clearings.	**High**. Based on Madrone's experience and local knowledge in the area, trees scattered throughout the study area provide suitable roosting habitat for the species.
Taxidea taxus American badger	--	CSC	The species prefers dry open fields, grasslands, and pastures.	**Low**. Based on Madrone's experience and local knowledge in the area, the annual brome grassland represents marginally suitable habitat due to the relative isolation of the patch of habitat.

Status Codes:
CC: CDFW Candidate for Listing
CE: CDFW Endangered
CFP: CDFW Fully Protected
CRPR: California Rare Plant Rank
CSC: CDFW Species of Special Concern
CT: CDFW Threatened
FC: Federal Candidate for Listing
PT: Federal Proposed Threatened
FD: Federally Delisted
FE: Federally Endangered
FT: Federally Threatened
WBWG M: Western Bat Working Group Medium Threat Rank
WBWG H: Western Bat Working Group High Threat Rank

Source: Madrone Ecological Consulting, 2025.

The vernal pools, seasonal wetlands and seasonal wetland swales within the study area represent suitable habitat for the species. Dwarf downingia was previously documented within the southern portion of the study area in 1991 and 2002 (CNDDB Occurrence #54). The species was not observed during the 2024 protocol-level special status plant surveys of the site, which was conducted when the species was identifiable at known locations in the vicinity. A single vernal pool within the off-site improvements area represents potential habitat for dwarf downingia. The vernal pool was not surveyed in 2024. Two records of dwarf downingia exist within five miles of the study area in the CNDDB, the nearest of which is the on-site Occurrence #54 discussed above (see Figure 4.3-7). The species is considered to be absent from the site, but has a high potential to occur in the un-surveyed vernal pool within the off-site improvements area. Based on the above and Madrone's experience and local knowledge in the area, dwarf downingia has *high* potential for occurrence within the study area.

Boggs Lake Hedge-Hyssop

Boggs Lake hedge-hyssop (*Gratiola heterosepala*) is not federally listed, but is a California endangered species and a CRPR List 1B.2 plant. Boggs Lake hedge-hyssop grows in vernal pools and around the perimeter of lakes and ponds between 30 and 7,800 feet. The small annual herb favors clay soils, and blooms from April to August.

The larger vernal pools and seasonal wetlands within the study area represent suitable habitat for the species. The species was not observed during the 2024 protocol-level special status plant surveys of the site. A single vernal pool within the off-site improvements area represents potential habitat for Bogg's Lake hedge-hyssop. The vernal pool was not surveyed in 2024. Four records of Boggs Lake hedge-hyssop exist within five miles of the study area in the CNDDB. The nearest occurrence (CNDDB Occurrence #33) is located approximately 0.4-mile southwest of the study area (see Figure 4.3-7). Based on the above and Madrone's experience and local knowledge in the area, Boggs Lake hedge-hyssop has *high* potential for occurrence within the study area.

Woolly Rose-Mallow

Woolly rose-mallow (*Hibiscus lasiocarpus* var. *occidentalis*) is not federally or State listed, but is classified as a CRPR List 1B.2 plant. The species generally occurs in shallow freshwater marshy habitats along the edges of drainages and detention basins with perennial or nearly perennial inundation. The perennial rhizomatous species blooms from June through September and occurs from sea level to approximately 395 feet.

The edges of Laguna Creek within the study area represent marginally suitable habitat for the species. The species was not observed during the 2024 protocol-level special status plant surveys of the study area, which covered all areas of suitable habitat for the species. The species has not been documented within five miles of the study area in the CNDDB. Based on the above, wooly rose-mallow is *absent* within the study area.

Ahart's Dwarf Rush

Ahart's dwarf rush (*Juncus leiospermus var. ahartii*) is not federally or State listed, but is classified as a CRPR List 1B.2 plant. Ahart's dwarf rush grows along the edges of seasonal wet habitats such as vernal pools and swales within valley and foothill grasslands between elevations of approximately 100 feet and 750 feet. The annual herb blooms from March to May.

The vernal pools, seasonal wetlands and seasonal wetland swales within the study area represent suitable habitat for the species. The species was not observed during the 2024 protocol-level

special status plant surveys of the site. A single vernal pool within the off-site improvements area represents potential habitat for Ahart's dwarf rush. The vernal pool was not surveyed in 2024. This species has not been documented within five miles of the study area in the CNDDB. However, based on Madrone's experience and local knowledge in the area, Ahart's dwarf rush has *high* potential for occurrence within the study area.

Legenere

Legenere (*Legenere limosa*) is not federally or State listed, but is classified as a CRPR List 1B.1 species. The annual herb is primarily associated with vernal pools. Legenere occurs at elevations between 5 and 2,885 feet, and blooms from April to June.

The larger vernal pools and seasonal wetlands within the study area represent suitable habitat for the species. The species was observed in one vernal pool along the southern border of the site during the 2024 protocol-level special status plant surveys. A single vernal pool within the off-site improvements area represents potential habitat for legenere. The vernal pool was not surveyed in 2024. Nine records of legenere exist within five miles of the study area in the CNDDB (see Figure 4.3-7). Based on the above, legenere is *present* within the study area.

Slender Orcutt Grass

Slender Orcutt grass (*Orcuttia tenuis*) is listed as threatened pursuant to the FESA. A total of 82 occurrences are known, of which 76 are presumed to be extant. In addition to the counties listed in its historic range, slender Orcutt grass is also known from Lassen, Modoc, Butte, and Plumas counties. The highest concentration of slender Orcutt grass occurs in Tehama County, where 27 natural occurrences are found.

The vernal pools within the study area represent suitable habitat for the species. The species was not observed during the 2024 protocol-level special status plant surveys of the site. A single vernal pool within the off-site improvements area represents marginal habitat for slender Orcutt grass. The vernal pool was not surveyed in 2024, but will be surveyed for the species in 2025. Two records of slender Orcutt grass exist within five miles of the study area in the CNDDB. The nearest of occurrence (CNDDB Occurrence #90) is located approximately 3.5 miles northeast of the site, 0.3-mile northeast of the intersection of Excelsior Road and Dierks Road, south of Laguna Creek (see Figure 4.3-7). Based on Madrone's experience and local knowledge in the area, slender Orcutt grass has *low* potential for occurrence within the study area.

Pincushion Navarretia

Pincushion navarretia (*Navarretia myersii* ssp. *myersii*) is not federally or State listed, but is classified as a CRPR List 1B.1 plant. The species is found in vernal pools, often on acidic micro habitats. Pincushion navarretia is found between approximately 65 and 1,085 feet and blooms in April and May.

The vernal pools, seasonal wetlands, and seasonal wetland swales within the study area represent suitable habitat for the species. The species was not observed during the 2024 protocol-level special status plant surveys of the site and is considered absent from the site. However, a single vernal pool within the off-site improvements area represents potential habitat for the species and was not surveyed in 2024. Thus, although the species has not been documented within five miles of the study area in the CNDDB, due to the presence of suitable habitat within the off-site improvements area, pincushion navarretia has *high* potential for occurrence within the study area.

Sacramento Orcutt Grass

Sacramento Orcutt grass (*Orcuttia viscida*) is listed as endangered pursuant to the FESA. The earliest collection of the species was in 1936 near Phoenix Field; however, by 1990, Sacramento Orcutt grass was known from seven natural occurrences and one introduction. The current distribution of the species is restricted to eight extant populations in Sacramento County. One additional population was discovered after 1990; but one known population and a portion of another have been extirpated. The highest concentration of occupied habitat occurs within a 2.3-square mile area near the City of Rancho Cordova.

The vernal pools within the study area represent suitable habitat for the species. The species was not observed during the 2024 protocol-level special status plant surveys of the site. A single vernal pool within the off-site improvements area represents marginal habitat for Sacramento Orcutt grass. The vernal pool was not surveyed in 2024, but will be surveyed for the species in 2025. One record of Sacramento Orcutt grass exists within five miles of the study area in the CNDDB. The occurrence (CNDDB Occurrence #20) is located approximately 4.4 miles northeast of the study area, northeast of the intersection of Excelsior Road and Florin Road (see Figure 4.3-7). Based on the above and Madrone's experience and local knowledge in the area, Sacramento Orcutt grass has *low* potential for occurrence within the study area.

Sanford's Arrowhead

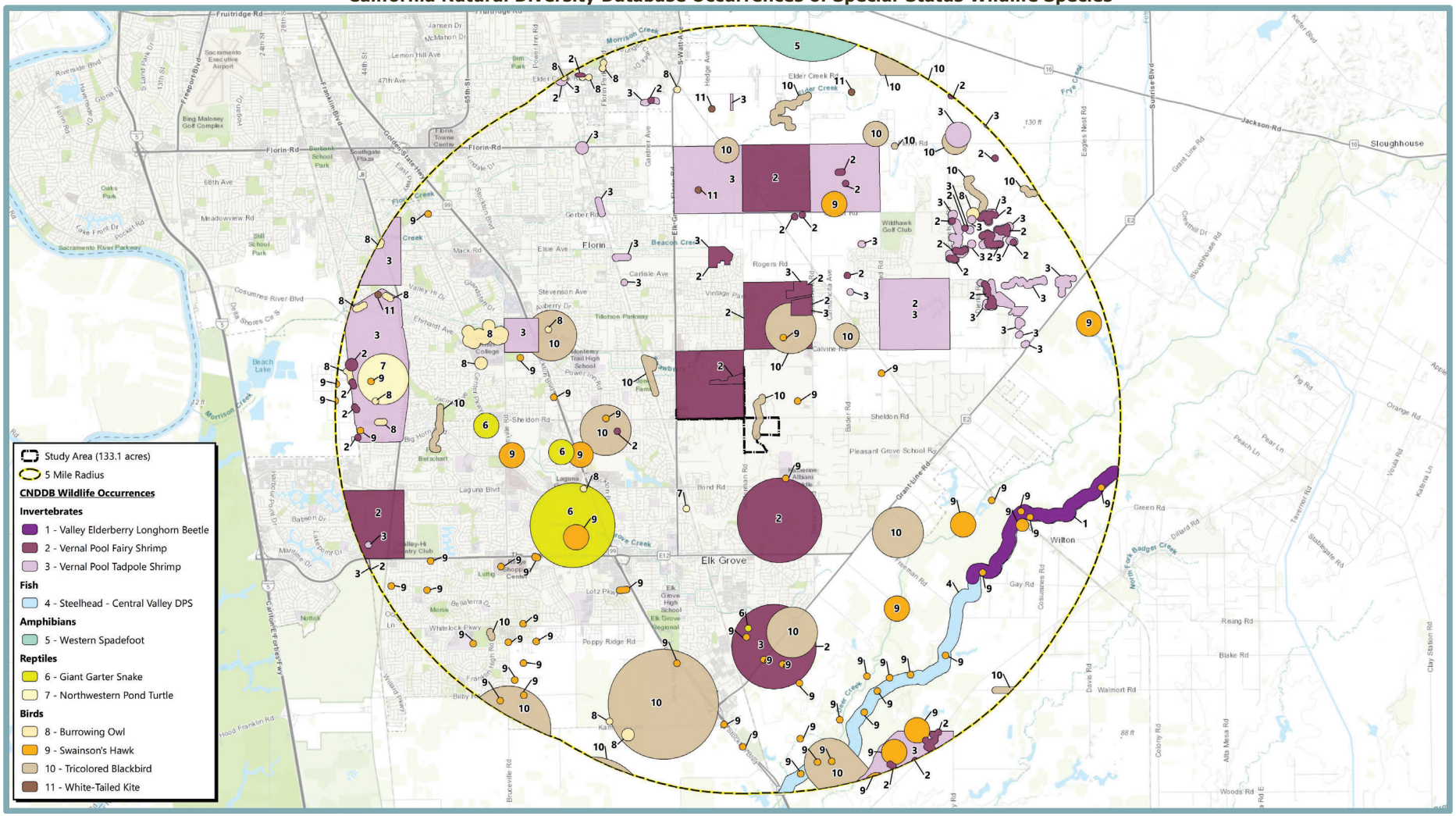
Sanford's arrowhead (*Sagittaria sanfordii*) is not federally or State listed, but it is classified as a CRPR List 1B.2 plant. The species generally occurs in shallow freshwater habitats associated with drainages, canals, and larger ditches that sustain inundation and/or slow-moving water into early summer. The perennial rhizomatous species blooms from May to October and occurs from sea level to approximately 2,000 feet.

Laguna Creek within the study area represents marginally suitable habitat for the species. The species was not observed during the 2023 or 2024 protocol-level special status plant surveys of the study area. A total of 16 records of Sanford's arrowhead exist within five miles of the study area in the CNDDB, the nearest of which (Occurrence #58) is located within Laguna Creek in the study area (see Figure 4.3-7). The CNDDB record was documented in 2002, but the population was not observed on-site during the special-status plant survey, which was conducted when the plant would have been identifiable. Based on the above, Sanford's arrowhead is *absent* within the study area.

Listed and Special-Status Wildlife Species

According to the records search conducted as part of the BRA, 23 special-status wildlife species have the potential to occur on-site or within five miles of the study area, 10 of which have been recorded within five miles of the study area (see Figure 4.3-8). Table 4.3-3 lists all 23 special-status wildlife species with potential to occur in the vicinity of the study area. Based on field observations and literature review (detailed further in this chapter under the Method of Analysis subsection), 19 of the 23 special-status wildlife species were determined to have the potential to occur within the study area. As determined based on Madrone's experience and local knowledge in the area, as well as peer reviews of the BRA by another biological firm with experience in the area, species that are considered to have *high* potential to occur within the study area include Crotch's bumble bee, vernal pool fairy shrimp, vernal pool tadpole shrimp, western spadefoot, northwestern pond turtle, tricolored blackbird, Swainson's hawk, northern harrier, white-tailed kite, loggerhead shrike, silver-haired bat, western red bat, and hoary bat.

Figure 4.3-8
California Natural Diversity Database Occurrences of Special-Status Wildlife Species



The species that is considered to have *moderate* potential to occur within the study area is pallid bat. Species that are considered to have *low* potential to occur within the study area include monarch butterfly, golden eagle, burrowing owl, Townsend's big-eared bat, and American badger.

The following discussions provide further details of the 19 special-status wildlife species with the potential to occur within the study area.

Crotch's Bumble Bee

Crotch's bumble bee (*Bombus crotchii*) is not federally listed but is a candidate for listing under CESA. The species has a limited distribution in southwestern North America. The species occurs primarily in California, including the Mediterranean region, Pacific Coast, West Desert, Great Valley, and adjacent foothills through most of southwestern California.

The species also occurs in Mexico (Baja California and Baja California Sur) and has been documented in southwest Nevada, near the California border. The species was historically common in the Central Valley of California, but now appears to be absent from most of the Valley, especially in the center of its historic range. In California, Crotch's bumble bee inhabits open grasslands and scrub habitats.

All bumble bees have three basic requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the entirety of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.

Nests are often located underground in abandoned holes made by ground squirrels, mice, and rats, or occasionally abandoned bird nests. Some species nest on the surface of the ground in tufts of grass or in empty cavities. Bumble bees that nest aboveground may require undisturbed areas with nesting resources such as grass and hay to protect nests. As such, areas with woody cover, or other sheltered areas, such as downed wood, rock walls, or brush piles, provide bumble bees sites to build nests.

Bumble bees depend on the availability of habitats with a rich supply of floral resources that bloom continuously during the entirety of the colony's life. The queen collects nectar and pollen from flowers to support the production of her eggs, which are fertilized by sperm she has stored from mating the previous fall. As generalist foragers, bumble bees do not depend on any one flower type. Bumble bees generally prefer flowers that are purple, blue, or yellow; they are essentially blind to the color red. Very little is known about hibernacula, or overwintering sites used by most bumble bees. Generally, bumble bees overwinter in soft, disturbed soil, under leaf litter or other debris, in abandoned holes, or occasionally in abandoned burrows. Some species nest on the surface of the ground in grassy tussocks, or in empty cavities such as hollow logs, dead trees, or under rocks. Queens most likely overwinter in small cavities just below or on the ground surface.

The study area provides suitable foraging habitat for the species, but nesting or overwintering habitat is sparse. The CNDDB does not list any occurrences of this species within five miles of the study area. The nearest sighting recorded in Bumble Bee Watch is a total of five Crotch's bumble bees documented about 9.7 miles to the northeast of the study area, around Mather Regional Park in Sacramento County in May and June 2024. The iNaturalist database shows one research grade record about 4.2 miles to the northwest of the study area, south of Elaine Drive and east of French Road in Sacramento County, recorded in April 2024. However, based on

Madone's experience and local knowledge in the area, Crotch's bumble bee has *high* potential for occurrence within the study area.

Vernal Pool Fairy Shrimp

The vernal pool fairy shrimp (*Branchinecta lynchi*) is listed as threatened, pursuant to the FESA. Historically, the range of vernal pool fairy shrimp extended throughout the Central Valley. Vernal pool fairy shrimp populations have been found in several locations throughout California, with habitat extending from Stillwater Plain in Shasta County, through the Central Valley, to Pixley in Tulare County, and along the Central Coast range from northern Solano County to Pinnacles National Monument in San Benito County. Additional populations occur in San Luis Obispo, Santa Barbara, and Riverside counties. The historic and current ranges of vernal pool fairy shrimp are very similar in extent; however, the remaining populations are more fragmented and isolated than during historical times. The lifecycle of vernal pool fairy shrimp is adapted to seasonally inundated features such as vernal pools, seasonal wetlands, and seasonal wetland swales. Fairy shrimp embryos survive the dry season in cyst form. Cysts "hatch" soon after pools become inundated during the wet season. Fairy shrimp complete their life cycle quickly and feed on small particles of detritus, algae, and bacteria.

The vernal pools, seasonal wetlands, and seasonal wetland swales within the study area represent suitable habitat for vernal pool fairy shrimp. A total of 24 CNDDB occurrences of vernal pool fairy shrimp have been recorded within five miles of the study area, the two nearest of which are located immediately adjacent to the off-site improvement areas (CNDDB Occurrences #100 and #163) (see Figure 4.3-8). Protocol-level surveys for this species have not been conducted within the study area or the off-site roundabout improvement areas. Based on the above and Madone's experience and local knowledge in the area, vernal pool fairy shrimp has *high* potential for occurrence within the study area.

Monarch Butterfly

The monarch butterfly (*Danaus plexippus*) is proposed for listing as threatened under FESA. The species is a large conspicuous species that occurs in North, Central, and South America; Australia; New Zealand; islands of the Pacific and Caribbean, and elsewhere. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (*Asclepias* spp.), and larvae emerge after two to five days. Larvae develop over a period of nine to 18 days, feeding on the milkweed and then pupate into chrysalis before eclosing six to 14 days later as an adult butterfly. Multiple generations of monarchs are produced during the breeding season, with most adult butterflies living approximately two to five weeks.

In California, monarchs continue to occupy and breed in areas near their overwintering groves along the California coast into northern Baja California throughout the year, and also disperse over multiple generations to occupy and breed throughout the state in the spring through fall. Migrating monarchs in western North America tend to occur more frequently near water sources such as rivers, creeks, roadside ditches, and irrigated gardens. Adult monarch butterflies require a diversity of blooming nectar resources during breeding and migration (spring through fall). Monarchs also need milkweed (for both oviposition and larval feeding) embedded within this diverse nectaring habitat.

The species was not observed in the study area during project-related surveys; however, patches of narrowleaf milkweed (*Asclepias fascicularis*) and woolypod milkweed (*Asclepias eriocarpa*) plants occur within the study area, which represent larval host plants for the species. CNDDB

occurrences of this species are not documented within five miles of the study area, but the CNDDB only tracks over-wintering locations of this species, which occur near the coast. iNaturalist reports five research-grade records of monarch butterflies within five miles of the study area. The Western Monarch Milkweed Mapper (WMMM) shows three records of monarchs within five miles of the study area. None of the records in iNaturalist or the WMMM document monarch breeding. The study area is not proximate to any overwintering areas for the species. Monarch butterfly could occur within the study area during the breeding season, and larval host plants are present within the study area that represent breeding habitat for monarch butterfly. Based on the above and Madone's experience and local knowledge in the area, monarch butterfly has *low* potential for occurrence within the study area.

Vernal Pool Tadpole Shrimp

The vernal pool tadpole shrimp (*Lepidurus packardi*) is listed as endangered, pursuant to the FESA. The historic range of the vernal pool tadpole shrimp likely extended throughout the Central Valley and has been documented from east of Redding in Shasta County, south to Fresno County, and to the San Francisco Bay Wildlife Refuge in Alameda County. The historic and current ranges of vernal pool tadpole shrimp are very similar in extent; however, the remaining populations are more fragmented and isolated than during historical times. The species is associated with long-duration seasonal pools in grasslands throughout the northern and eastern portions of the Central Valley. Suitable vernal pools and seasonal swales are generally underlain by hardpan or sandstone. Similar to vernal pool fairy shrimp, vernal pool tadpole shrimp are adapted to seasonally inundated features, such as vernal pools, seasonal wetlands, and seasonal wetland swales.

The vernal pools and seasonal wetlands within the study area provide suitable habitat for the species. A total of 24 documented CNDDB occurrences of vernal pool tadpole shrimp are within five miles of the study area (see Figure 4.3-8). The nearest occurrence (CNDDB Occurrence #165) is located approximately one mile north of the study area in the Churchill Downs Wetland Preserve in Sacramento County. Protocol-level surveys for the species have not been conducted within the study area. Based on the above and Madone's experience and local knowledge in the area, vernal pool tadpole shrimp has *high* potential for occurrence within the study area.

Western Spadefoot

The western spadefoot (*Spea hammondii*) is proposed for federal listing and is a CDFW Species of Special Concern. The amphibian is a nocturnal animal that forages in grassland, open chaparral, and pine-oak woodlands for a variety of invertebrates, such as insects and worms. Western spadefoot breeds from January through May in a variety of temporary wetlands, including creeks, pools in intermittent drainages, vernal pools, and seasonal wetlands, and other fish-free water features. The tadpoles develop over three to 11 weeks and must complete their metamorphosis before the temporary pools dry. Post-metamorphic juveniles feed and then immediately seek underground refugia. Following metamorphosis, adults are largely terrestrial in nature and will burrow into sandy or gravelly soils using the "spades" on their hind feet. The majority of an adult's life is spent in underground burrows.

Several of the vernal pools and seasonal wetlands within the study area provide suitable breeding habitat for western spadefoot. The surrounding annual brome grasslands provide suitable dry-season habitat. One documented CNDDB occurrence of western spadefoot, documented in 1929, is located within five miles of the study area (CNDDB Occurrence #501), approximately 4.6 miles to the north of the study area (see Figure 4.3-8). The nearest recent CNDDB occurrence,

presumed extant record in the CNDDB is located approximately 9.3 miles to the northeast, in Mather Regional Park (Occurrence #396). Adults were first recorded in this location in 1993, and tadpoles were observed in 2018. Based on the above and Madone's experience and local knowledge in the area, western spadefoot has *high* potential for occurrence within the study area.

Northwestern Pond Turtle

The northwestern pond turtle (*Actinemys marmorata*) is proposed for federal listing and is a CDFW Species of Special Concern. Northwestern pond turtle's favored habitats include streams, large rivers, and canals with slow-moving water, aquatic vegetation, and open basking sites. Although the turtles must live near water, the species can tolerate drought by burrowing into the muddy beds of dried drainages. The species feeds mainly on invertebrates, such as insects and worms, but will also consume small fish, frogs, mammals, and some plants. Northwestern pond turtle predators include raccoons, coyotes, raptors, weasels, large fish, and bullfrogs. The species breeds from mid to late spring in adjacent open grasslands or sandy banks.

Laguna Creek within the study area provides suitable habitat for northwestern pond turtle. Because females move overland for up to 325 feet in the spring and summer to find suitable sites for egg-laying, areas within 325 feet of Laguna Creek could support dispersing turtles. The CNDDB lists two occurrences of the species within five miles of the study area, the nearest of which (Occurrence #233) was recorded in 2004 in the Sacramento Bufferlands, encompassing Lost Lake, Laguna Creek, and Fish Head Lake (see Figure 4.3-8). Based on the above and Madone's experience and local knowledge in the area, northwestern pond turtle has high potential for occurrence within the study area.

Tricolored Blackbird

Tricolored blackbird (*Agelaius tricolor*), which is currently in decline throughout the State, is not federally listed. The species is State listed as threatened and is a CDFW Species of Special Concern. Historically, colonies were established in freshwater marshes dominated by cattails (*Typha* spp.) and bulrushes (*Scirpus* or *Schoenoplectus* spp.). More recently, the species has used non-native mustards (*Brassica* spp.), blackberries (*Rubus* spp.), thistles (*Circium* spp.), and mallows (*Malva* spp.) as nesting substrate. Since the 1980s, the largest colonies have been observed in the San Joaquin Valley in cultivated fields of triticale, which is a hybrid of wheat and rye often grown as livestock fodder. The current trend of nesting in active agricultural fields has further imperiled the species as nestlings typically are not fledged by the time the triticale is harvested.

The surrounding annual brome grassland provides suitable foraging habitat for the species. The CNDDB lists 24 nesting records for tricolored blackbird within five miles of the study area, the nearest of which is partially within the study area (Occurrence #232) (see Figure 4.3-8). The CNDDB record notes that successful nesting occurred at the site in 1992, 1993, 1994, 1995, and 1996. The last documented unsuccessful nesting attempt was made in 1999, and birds were not observed in 1997, 1998, 2000, 2011, and 2014. The nesting habitat was blackberry and wild rose along Laguna Creek. The Cornell Lab of Ornithology's eBird database (eBird) shows quite a few observations of flyover birds within five miles of the study area, but nesting observations are not listed in the area. Based on the above and Madone's experience and local knowledge in the area, tricolored blackbird has *high* potential for occurrence within the study area.

Golden Eagle

The golden eagle (*Aquila chrysaetos*) is not federally or State listed, but is a CDFW Fully Protected species and is protected under the federal Bald and Golden Eagle Protection Act. The species is a very large solitary raptor that forages in large, expansive open grasslands and savannahs, and nests on cliff ledges or in large, lone trees in rolling to mountainous terrain. Though natural densities of the species are generally believed to be low, the species once was relatively common to the open areas of California.

Although the annual brome grasslands within the study area represent suitable foraging habitat for this species, the species is unlikely to forage in the study area. The CNDDB does not list any occurrences of golden eagle nest sites within five miles of the study area. Both eBird and iNaturalist show observations of the birds within five miles of the study area, but nesting records are not listed. The study area lacks suitable nesting habitat. Based on the above and Madone's experience and local knowledge in the area, golden eagle has *low* potential for occurrence within the study area.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is not federally listed, but is a candidate for listing under CESA. The species is also designated as a CDFW Species of Special Concern. Burrowing owls typically inhabit dry open rolling hills, grasslands, desert floors, and open bare ground with gullies and arroyos. The species typically uses burrows created by fossorial mammals, most notably the California ground squirrel, but may also use manmade structures such as culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement. The species' breeding season extends from February 1 through August 31.

The annual brome grassland provides suitable foraging habitat for the species, but the lack of ground squirrel burrows for nesting habitat substantially reduces the potential for the species to occur. Debris piles in various locations throughout the study area could provide marginally suitable nesting or wintering habitat. The CNDDB lists 12 occurrences of burrowing owl within five miles of the study area , the nearest of which was recorded in 2007 and is located approximately 1.6 miles southwest of the study area, near the State Route (SR) 99 southbound on-ramp at Laguana Boulevard (CNDDB Occurrence #1258) (see Figure 4.3-8) The nearest eBird record is from 2014 and 2015 and is located approximately 1.4 miles west of the study area at the intersection of Sheldon Road and East Stockton Boulevard. Based on the above and Madrone's experience and local knowledge in the area, burrowing owl has *low* potential for occurrence within the study area.

Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a raptor species that is not federally listed, but is listed as threatened by CDFW. Breeding pairs typically nest in tall trees associated with riparian corridors, and forage in grassland, irrigated pasture, and cropland with a high density of rodents. The Central Valley populations breed and nest in the late spring through early summer before migrating to Central and South America for the winter.

The annual brome grassland throughout the study area provides suitable foraging habitat for Swainson's hawk, and the trees within the study area provide suitable nesting habitat. A total of 49 occurrences of Swainson's hawk nests have been documented within five miles of the study area in the CNDDB, the nearest of which is located approximately 0.3-mile to the northeast of the study area (CNDDB Occurrence #2245) in a valley oak that was removed due to development in

2011 (see Figure 4.3-8). eBird includes numerous observations of Swainson's hawks within five miles of the study area over the last 10 years. Based on the above and Madrone's experience and local knowledge in the area, Swainson's hawk has *high* potential for occurrence within the study area.

Northern Harrier

The northern harrier *(Circus cyaneus)* is not listed, pursuant to either the FESA or CESA. The species is a CDFW Species of Special Concern. Northern harrier, a ground-nesting species, is known to nest within the Central Valley, along the Pacific Coast, and in northeastern California, typically nesting in emergent wetland/marsh, open grasslands, or savannah habitats. Foraging occurs within a variety of open habitats such as marshes, agricultural fields, and grasslands.

The annual brome grassland throughout the study area provides suitable nesting and foraging habitat for the species, though the species is not likely to nest on-site due to the proximity to developed areas. Northern harrier has not been documented in the CNDDB within five miles of the study area, which is likely due to lack or reporting, rather than scarcity of the species. eBird includes numerous observations of northern harriers within five miles of the study area over the last 10 years. The nearest of the observations are three observations of a single bird on a parcel almost immediately northeast of the study area in 2021. Based on the above and Madrone's experience and local knowledge in the area, northern harrier has *high* potential for occurrence within the study area.

White-Tailed Kite

White-tailed kite (*Elanus leucurus*) is not federally or State listed. The raptor is a CDFW Fully Protected species. White-tailed kite is a yearlong resident of the Central Valley and is primarily found in or near foraging areas, such as open grasslands, meadows, farmlands, savannahs, and emergent wetlands. White-tailed kites typically nest from March through June in trees within riparian, oak woodland, and savannah habitats of the Central Valley and Coast Range.

The annual brome grassland throughout the study area provides suitable foraging habitat for white-tailed kite, and the trees within the study area provide suitable nesting habitat. The CNDDB includes four documented occurrences of white-tailed kite nests within five miles of the study area, the nearest of which was in 1990 and approximately 2.6 miles north of the study area (CNDDB Occurrence #28) (see Figure 4.3-8). 2024). eBird includes numerous observations of white-tailed kites within five miles of the study area over the last 10 years, including a record of a "probable nesting site" in a tree approximately 0.25-mile southwest of the study area in a tree at the end of St. Anthony Court in 2018. Based on the above and Madrone's experience and local knowledge in the area, white-tailed kite has *high* potential for occurrence within the study area.

Loggerhead Shrike

The loggerhead shrike *(Lanius ludovicianus)* is not listed, pursuant to either the FESA or CESA. The species is a CDFW Species of Special Concern. Loggerhead shrikes nest in small trees and shrubs in woodland and savannah vegetation communities, and forage in open habitats throughout California. The nesting season ranges from March through June.

The trees and annual brome grassland within the study area provide suitable foraging and nesting habitat for loggerhead shrike. The species has not been documented in the CNDDB within five miles of the study area, likely due to lack of reporting rather than scarcity of the species. eBird includes an unconfirmed 2013 observation record along the Elk Grove Creek Trail west of SR 99

in Elk Grove, approximately 2.3 miles southwest of the study area. Based on the above and Madrone's experience and local knowledge in the area, loggerhead shrike has *high* potential for occurrence within the study area.

Pallid Bat

Pallid bat (*Antrozous pallidus*) is not federally or State listed. The species is a CDFW Species of Special Concern and classified by the WBWG as a High priority species. Pallid bat favors roosting sites in crevices in rock outcrops, caves, abandoned mines, hollow trees, and manmade structures, such as barns, attics, and sheds. Though pallid bats are gregarious, the species tends to group in smaller colonies of 10 to 100 individuals. The bat is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which the bat seizes after landing.

Suitable roosting habitat may be present in the residence within the study area, and in the trees throughout the study area. The annual brome grassland within the study area could provide foraging habitat. Pallid bat has not been documented in the CNDDB or iNaturalist database within five miles of the study area. Based on the above and Madrone's experience and local knowledge in the area, pallid bat has *moderate* potential for occurrence within the study area.

Townsend's Big-Eared Bat

Townsend's big-eared bat (*Corynorhinus townsendii townsendii*) is not federally listed; however, the species is a CDFW Species of Special Concern and classified by the WBWG as a High priority species. Townsend's big-eared bat roosts primarily in caves and cave-like roosting habitat, including abandoned mines. The species' habit of roosting on open surfaces while resembling a pendant makes the bat readily detectable, and the species can be most readily observed when present (commonly in low numbers) in caves and abandoned mines throughout the bat's range. Townsend's big-eared bat has also been reported to use buildings, bridges, rock crevices, and hollow trees as roost sites. The bat forages in edge habitats along streams and adjacent to and within a variety of wooded habitats.

The buildings around the existing residence in the study area provide marginally suitable roosting habitat for Townsend's big-eared bat, and the open areas within the study area provide suitable foraging habitat. The species has not been documented in the CNDDB or the iNaturalist database within five miles of the study area. Based on the above and Madrone's experience and local knowledge in the area, Townsend's big-eared bat has *low* potential for occurrence within the study area.

Silver-Haired Bat

Silver-haired bat (*Lasionycteris noctivagans*) is not federally or State listed. The species is classified by the WBWG as a Medium priority species. Primarily considered a coastal and montane forest species, the silver-haired bat occurs in more xeric environments during winter and seasonal migrations. The bat roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. The insectivore's favored foraging sites include open wooded areas near water features.

Trees within the study area provide suitable roosting habitat for silver-haired bat, and the annual brome grassland within the study area provides suitable foraging habitat. Although the species has not been documented in the CNDDB or iNaturalist database within five miles of the study

area, based on the above and Madrone's experience and local knowledge in the area, silver-haired bat has *high* potential for occurrence within the study area.

Western Red Bat

Western red bat (*Lasiurus blossevillii*) is not federally or State listed. The species is a CDFW Species of Special Concern and is classified by the WBWG as a High priority species. Western red bat is typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. The species may associate with intact riparian habitat, particularly willows, cottonwoods, and sycamores.

Trees and shrubs within the study area provide suitable roosting habitat for western red bat. The species has not been documented in the CNDDB or iNaturalist database within five miles of the study area. Based on the above and Madrone's experience and local knowledge in the area, western red bat has *high* potential for occurrence within the study area.

Hoary Bat

The hoary bat (*Lasiurus cinereus*) is not federally or State listed. The species is classified by the WBWG as a Medium priority species. Hoary bat is considered to be one of the most widespread of all American bats, with a range extending from Canada to central Chile and Argentina, as well as Hawaii. Hoary bats are solitary and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches at the edge of a clearing. The species may also occasionally roost in caves, beneath a rock ledge, in a woodpecker hole, in a grey squirrel nest, under a wood plank, or clinging to the side of a building.

Trees within the study area provide suitable roosting habitat for hoary bat, and the annual brome grassland within the study area provides suitable foraging habitat. The species has not been documented in the CNDDB or iNaturalist database within five miles of the study area. Based on the above and Madrone's experience and local knowledge in the area, hoary bat has *high* potential for occurrence within the study area.

American Badger

The American badger (*Taxidea taxus*) is not federally or State listed. The species is a CDFW Species of Special Concern. The species historically ranged throughout much of the State except in humid coastal forests. Badgers were once numerous in the Central Valley; however, populations now occur in low numbers in the surrounding peripheral parts of the valley and in the adjacent lowlands of eastern Monterey, San Benito, and San Luis Obispo counties. Badgers occupy a variety of habitats, including grasslands and savannas. The principal requirements seem to be significant food supply, friable soils, and relatively open uncultivated ground.

The annual brome grasslands within the study area provide only marginal habitat for American badger due to the small size of the parcel and surrounding development. Evidence of the species was not observed during surveys of the study area. American badger has not been documented in the CNDDB or iNaturalist database within five miles of the study area. Based on the above and Madrone's experience and local knowledge in the area, American badger has *low* potential for occurrence within the study area.

Trees

As detailed below in the Methods of Analysis section, Acorn Arboricultural Services, Inc. conducted a tree inventory within the site as part of an Arborist Report prepared for the Project (see Appendix E).[9] On July 14, 2022, a certified arborist surveyed the site and identified a total of 30 trees comprised of eight valley oaks, 14 Brazilian peppers, one fruitless mulberry, one black acacia, one date palm, two California black walnuts, and three blue gums. The existing trees within the site are located along either side of Laguna Creek, and native valley oak trees occur along the northern boundary of the study area, adjacent to Sheldon Road. Two California black walnuts and one valley oak are recommended for removal due to poor condition.

With the exception of the three trees recommended for removal, a total of 27 trees with an aggregate diameter at standard height (DSH) of 644 inches were inventoried within the site. According to the Arborist Report, 10 trees of local importance, including eight valley oaks and two California black walnuts, within the site are protected under the City's Tree Preservation and Protection Ordinance (Elk Grove Municipal Code [EGMC] Chapter 19.12). Landmark trees, secured trees, or trees on City property or in the public ROW were not found within or overhanging the site. While the Arborist Report did not include a survey of the off-site improvement areas, according to the BRA, protected trees may occur within the BRA study area. The off-site roundabout improvement areas do not include any large trees.

4.3.3 REGULATORY CONTEXT

A number of federal, State, and local policies provide the regulatory framework that guides the protection of biological resources. The following discussion summarizes those laws that are most relevant to biological resources in the vicinity of the site.

Federal Regulations

The following are the federal environmental laws and policies relevant to biological resources.

Federal Endangered Species Act

The U.S. Congress passed the FESA in 1973 to protect species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. FESA prohibits the "take" of endangered or threatened wildlife species. "Take" is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [3], [19]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 CFR Section 17.3). Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR Section 17.3). Actions that result in take can result in civil or criminal penalties.

Section 10 of the FESA requires the issuance of an "incidental take" permit before any public or private action may be taken that could take an endangered or threatened species. The permit requires preparation and implementation of an HCP that would offset the take of individuals that may occur, incidental to implementation of a proposed project, by providing for the protection of the affected species.

[9] Acorn Arboricultural Services, Inc. *Arborist Report and Tree Inventory Summary Summer Villas at Sheldon*. July 15, 2022.

Pursuant to the requirements of FESA, a federal agency reviewing a project within the jurisdiction of the agency must determine whether any federally listed threatened or endangered species may be present on-site and whether the Project will have a potentially significant impact on such species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC, Section 1536[3], [4]).

In the context of the Project, FESA consultation with USFWS or the NMFS would be initiated if development resulted in take of a threatened or endangered species or if issuance of a Section 404 permit or other federal agency action could result in take of an endangered species or adversely modify critical habitat of such a species.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of State and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code (CFGC) states, "It is unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the code or any regulation adopted pursuant thereto."

Clean Water Act

The USACE regulates discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act (CWA). "Discharge of fill material" is defined as the addition of fill material into Waters of the U.S., including but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for the construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and sub-aqueous utility lines (33 CFR Section 328.2[f]). In addition, Section 401 of the CWA (Title 33 of U.S. Code [USC], Section 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the United States include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR Section 328.3[b]).

Furthermore, jurisdictional waters of the United States can be defined by exhibiting a defined bed and bank and OHWM. The OHWM is defined by the USACE as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (33 CFR Section 328.3[e]).

State Regulations

The following are the State environmental laws and policies relevant to biological resources.

California Department of Fish and Wildlife

CDFW administers a number of laws and programs designed to protect fish and wildlife resources under the CFGC, such as CESA (CFGC Section 2050, et seq.), Fully Protected Species (CFGC Section 3511) and the Lake or Streambed Alteration Agreement (LSAA) Program (CFGC Sections 1600 to 1616). Such regulations are summarized in the following sections.

California Endangered Species Act

The State of California enacted CESA in 1984. CESA is similar to the FESA but pertains to State-listed endangered and threatened species. Candidate species under the CESA are defined as native plant or animal species being considered for addition to the State's endangered or threatened species list. CESA requires State agencies to consult with CDFW when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the existence of listed species. CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur, and allows CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that “overriding considerations” exist; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species.

As with FESA, for covered projects that may impact State-listed species under CESA, agencies should consult with CDFW on projects or actions that could affect listed species. CDFW determines whether jeopardy would occur and can identify “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA also allows CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the “take” of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (CFGC Section 2081).

California Fish and Game Codes

A number of species have been designated “Fully Protected” species under Sections 5515, 5050, 3511, and 4700 of the CFGC, but are not listed as endangered (Section 2062) or threatened (Section 2067) species under CESA. Except for take related to scientific research or take undertaken pursuant to an adopted Natural Community Conservation Plan (NCCP), all take of fully protected species is prohibited. The CFGC defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

Birds of prey are protected in California under provisions of the CFGC Section 3503.5 (1992), which states, “it is unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by CDFW.

Lake or Streambed Alteration Program

The CDFW is responsible for conserving, protecting, and managing California’s fish, wildlife, and native plant resources. To meet this responsibility, the CFGC Section 1602, requires notification

to CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, State or local government agency, or public utility that proposes an activity that will:

- substantially divert or obstruct the natural flow of any river, stream or lake;
- substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

For the purposes of CFGC Section 1602, rivers, streams and lakes must flow at least intermittently through a bed or channel. If notification is required and CDFW believes the proposed activity is likely to result in adverse harm to the natural environment, the CDFW will require that the parties enter into a LSAA.

CDFW Species of Special Concern

In addition to formal listings under FESA and CESA, plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of "Species of Special Concern" developed by CDFW. Species whose numbers, reproductive success, or habitat may be threatened are tracked by CDFW in California.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. Currently, 64 species, subspecies, and varieties of plants are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations, emergencies, and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

State Water Resources Control Board

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the federal CWA. Although the CWA is a federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Quality Control Boards (RWQCBs) are the authorities that certify that issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate the Porter-Cologne Water Quality Control Act [Porter-Cologne Act, Water Code Section 13000 et seq.] and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE permits for fill and dredge discharges within waters of the U.S., and also implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California Plan. The Procedures consist of four major elements: (1) a wetland definition; (2) a framework for determining if a feature that meets the wetland definition is a water of the State; (3) wetland

delineation procedures; and (4) procedures for the submittal, review, and approval of applications for WQCs and Waste Discharge Requirements (WDR) for dredge or fill activities. The State Office of Administrative Law (OAL) approved the Procedures on August 28, 2019, and the Procedures became effective May 28, 2020.

Under the Procedures and the State Water Code (Water Code Section 13050[e]), "waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to waters of the State, which includes waters of the U.S. and non-federal waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals.

Local Regulations

The following local regulations are applicable to the Project.

City of Elk Grove General Plan

The following goals and policies from the City's General Plan related to biological resources are applicable to the Project:

Goal NR-1 Protected Natural Open Space Lands That Provide Recreation And Habitat For Native Species

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.

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-1-5 Recognize the value of naturally vegetated stream corridors, commensurate with flood control and public desire for open space, to assist in removal of pollutants, provide native and endangered species habitat and provide community amenities.

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.

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.

Goal NR-2 Preserved Trees and Urban Forest

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 non-native 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
- Runoff reduction benefits
- Air quality benefits (pollutant reduction)

Policy NR-2-2 Maximize tree canopy coverage on public lands and in open spaces by continuing to plant new trees and ensuring sufficient right-of-way width for new developments to provide tree plantings

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 Tree Preservation and Protection Ordinance

The City of Elk Grove Tree Preservation and Protection Ordinance is set forth in EGMC Chapter 19.12. The objective of the Tree Preservation and Protection Ordinance is "reserve existing trees through both the development review process and subsequent activities such as work within the canopy or within the critical root zone of trees and provide a process for replacement in instances where preservation is not reasonably possible." The ordinance provides protections for landmark trees, trees of local importance, secured trees, and trees on City property or in a public ROW.

For the purposes of the ordinance, the four categories of protected trees are defined as:

- A "landmark tree" is a tree that has been determined and designated, by resolution of the City Council, to be of high value to the community because of its species, size, age, form, historical significance, or some other professional criterion;
- A "tree of local importance" is any of the following species with a DSH of greater than six inches:
    - Coast live oak (*Quercus agrifolia*);
    - Valley oak (*Quercus lobata*);
    - Blue oak (*Quercus douglasii*);
    - Interior live oak (*Quercus wislizenii*);
    - Orace oak (*Quercus X moreha*);
    - California sycamore (*Platanus racemosa*); and
    - California black walnut (*Juglans hindsii*);
- A "secured tree" is a Tree of Local Importance retained during the course of review and approval of a discretionary development project, and a tree planted as a result of a discretionary development project to satisfy mitigation requirements; and
- A "tree in the ROW or on City property" is a qualifying landmark tree, secured tree, and/or tree of local importance within the public ROW or on City property.

The City requires a Tree Permit to conduct work within the critical root zone, cut down, remove, top, or relocate any landmark tree, tree of local importance, secured tree, or tree in the ROW or on City property (EGMC Section 19.12.070).

City of Elk Grove Swainson's Hawk Code

In 2003, the City established and adopted Chapter 16.130 of the EGMC, Swainson's Hawk Impact Mitigation Fees, to provide options for mitigating a project's impacts to Swainson's hawk foraging habitat. Chapter 16.130 applies to projects that would subdivide parcels five acres and larger zoned for agricultural uses. Chapter 16.130 outlines potential compensatory mitigation for projects that must comply with the code.

4.3.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the Project's potential impacts related to biological resources. In addition, a

discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact would occur if the Project would result in any of the following:

- 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 the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
- Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) 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; and
- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan (see Chapter 5, Effects Not Found to be Significant).

As noted above, issues related to whether the Project would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR.

Method of Analysis

The information contained in the analysis is primarily based on the BRA prepared by Madrone, the Arborist Report prepared by Acorn Arboricultural Services, Inc., as well as the peer review of the aforementioned reports performed by LOA.

Biological Resource Assessment

The analyses within the BRA is based on a literature review and field surveys of the study area, which are detailed further below.

Literature Review

A list of special-status plant and wildlife species with potential to occur within the study area was developed as part of the BRA through queries of the following databases:

a) CNDDB query of the study area and all areas within five miles of the study area (see Figure 4.3-7 and Figure 4.3-8);
b) USFWS Information for Planning and Conservation (IpaC) query of the study area (included as Attachment B of the BRA);
c) CNPS Rare and Endangered Plant Inventory query of the "Elk Grove, California" U.S. Geological Survey topographic quadrangle and the eight surrounding quadrangles (included as Attachment C of the BRA);
d) Verified records from Bumble Bee Watch (BBW);

e) Western Monarch and Milkweed Occurrence Database and Western Monarch Overwintering Site Viewer records;
f) Research grade observations from iNaturalist;
g) Confirmed nesting records and observation records from Cornell Laboratory of Ornithology's eBird database; and
h) WBWG Species Matrix.

In addition, any special-status species that are known to occur in the project region, but that were not identified in any of the above database searches, were also analyzed for their potential to occur within the study area.

Field Surveys

Madrone conducted field surveys of the on-site portion of the study area on November 16 and 17, 2022; December 13 and 22, 2022; April 26 and 29, 2024; May 9, 2024; and June 21, 2024. The off-site improvement areas within the study area were surveyed on October 17 and 28, 2024. The purpose of the field surveys were to map vegetation communities/land covers and assess the suitability of habitats on-site to support special-status species.

During the 2022 site visits, Madrone updated the aquatic resource delineation map of the on-site area to reflect the current conditions, and enhanced linework precision. The updated aquatic resources delineation was verified by the USACE in 2023.

During the November 2022 site visits, a field survey evaluating the section of Laguna Creek within the site for its potential to support giant garter snake was conducted. In addition, all areas within 200 feet of the site were evaluated for potential giant garter snake habitat.

Protocol-level special-status plant surveys were conducted during the April and June 2024 site visits. The special-status plant surveys were conducted in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants; the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities; and the CNPS Botanical Survey Guidelines.

During the October 2024 visits, Madrone conducted an aquatic resources delineation in accordance with USACE protocol and land cover mapping of the off-site improvement area.

The results of the protocol-level surveys described above were incorporated into and included as the following attachments to the BRA:

- PJD and Aquatic Resources Determination and Aquatic resources Delineation Map (Attachment D of the BRA);
- Special-Status Plant Survey Report (Attachment E of the BRA); and
- Giant Garter Snake Habitat Assessment (Attachment F of the BRA).

Arborist Report

Acorn Arboricultural Services, Inc. prepared an Arborist Report to update a February 9, 2007 Arborist Report by Sierra Nevada Arborist for the site. During field reconnaissance and inventory efforts on July 14, 2022, a qualified biologist conducted a visual review of the trees documented in the February 9, 2007 report from ground level and added one additional tree.

At the time of field identification and inventory efforts, specific data was gathered for each tagged tree including the tree's species, DSH, dripline radius (DLR) and critical root radius (CRZ). The tree's overall structural condition and vigor were separately assessed ranging from "poor" to "good" based upon the observed characteristics noted within the tree and the arborist's best professional judgment. Notable characteristics were documented and recommendations on a tree-by-tree basis were made which logically followed the observed characteristics noted within the trees at the time of the field inventory effort. The recommendations are based on the assumption that the tree would be introduced into a developed environment and may require maintenance and/or may not be suitable for retention within a post-development setting.

Peer Review

A peer review of the BRA and Arborist Report conducted by LOA recommended minor revisions to the reports and provided additional information.[10,11] LOA conducted a site visit on March 6, 2025 to confirm the current conditions of the site, as compared to the conclusions of the BRA. The BRA referenced herein revises the original report based on the peer review recommendations from LOA. Madrone also provided additional supplemental responses to the peer review comments from LOA.[12,13]

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to biological resources is based on implementation of the Project in comparison to existing conditions and the standards of significance presented above.

4.3-1 Impacts to special-status plant species either directly (e.g., threaten to eliminate a plant community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As detailed above and in Table 4.3-3, the special-status plant species with potential to occur within the study area, due to the presence of suitable habitat, include big-scale balsamroot, dwarf downingia, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, pincushion navarretia, slender Orcutt grass, and Sacramento Orcutt grass. The protocol-level special-status plant surveys conducted throughout the study area in 2024 were negative for all the aforementioned species that could occur within the proposed impact area; however, given enough time, plants may become established in areas where suitable habitat exists. The annual brome grassland, seasonal wetlands, seasonal wetland swales, vernal pools, and the banks of Laguna Creek within the study area provide suitable habitat for a variety of special-status plant species. Therefore, special-status plants could become established within the foregoing vegetation communities in the interim between surveys/analysis and

[10] Live Oak Associates, Inc. *Peer review for the proposed Summer Villas Peer Review project, Elk Grove, Sacramento County, California*. March 13, 2025.
[11] Live Oak Associates, Inc. *Peer review to comments for the proposed Summer Villas Peer Review project, Elk Grove, Sacramento County, California (PN 2786-01)*. April 23, 2025.
[12] Madrone Ecological Consulting. *Response to Peer Review of Biological Resources Documentation for Summer Villas*. April 10, 2025.
[13] Madrone Ecological Consulting. *Response to Peer Review Response to Comments for the Summer Villas Peer Review*. May 5, 2025.

eventual construction, which could result in potential impacts during construction of the Project.

Furthermore, legenere was determined to be present within the BRA study area. The Project as currently proposed would avoid the vernal pool that supports legenere. However, because the final development plan is currently unknown, the Project could result in the fill of this vernal pool, which would permanently impact the legenere plants. In addition, the off-site improvement areas have not been surveyed for special-status plants. If construction would affect suitable habitat in the off-site improvement area and special-status plants were present, a significant impact would occur.

Based on the above, without additional field surveys, the Project could have a substantial adverse effect, either directly or through habitat modifications, on a plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.3-1(a) *Prior to approval of any improvement plans, a special-status plant survey shall be conducted at the time of year when special-status/rare plant species are both evident and identifiable. The survey shall be conducted by a qualified botanist for all areas of suitable habitat for special-status plants within the final development footprint not surveyed during the 2024 protocol special-status plant survey. If construction in areas surveyed in 2024 does not commence prior to July 1 of 2027, another round of special-status plant surveys shall be conducted in areas proposed for impact prior to commencement of construction. The survey(s) shall be conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the California Native Plant Society (CNPS) Botanical Survey Guidelines of the California Native Plant Society, and California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The results of the survey(s) shall be submitted to the City of Elk Grove Community Development Department prior to the commencement of construction activities.*

If special-status/rare plant species are not identified during the survey(s), further mitigation is not necessary. If special-status/rare plant species are identified, an "Avoidance Zone" shall be established. If a federal Endangered Species Act (FESA) or California Endangered Species Act (CESA) listed special-status plant is found, then the appropriate Avoidance Zone shall be developed in consultation with USFWS or CDFW (as applicable). If the species is not listed under FESA or CESA, the appropriate Avoidance Zone shall be developed by a qualified botanist in consultation with the City. Avoidance Zone areas may differ by species

and site-specific conditions, and shall be developed such that the avoided special- status plant population is likely to persist in perpetuity. Avoidance Zones may be based on a fixed buffer distance from the special-status plant population, at the limit of a hydrologic break, or as otherwise determined appropriate for the species in question. A 100-foot buffer is an appropriate Avoidance Zone for legenere. The 100-foot buffer could be reduced if a hydrologic break exists between the plants and proposed development such that the development would not impact hydrology for the plants. In addition to the Avoidance Zone, the Project shall be designed such that unseasonal or landscaping water is not directed into the wetland, and residential backyards are not located along the edge of the Avoidance Zone.

If any special-status plants cannot be avoided and grading or other disturbance would occur within mapped population areas, including the mapped populations of legenere within the study area, the Project proponent shall develop a Special-Status Plant Mitigation Plan for review and approval by the City of Elk Grove Community Development Department prior to issuance of a grading permit that would impact the plants. The Special-Status Plant Mitigation Plan shall include the following mitigation options:

1. *<u>Preservation:</u> Identify existing, unprotected populations of the special-status plant that would be impacted by the Project in the Project vicinity and protect the population in perpetuity by establishing a preserve on other land that supports those populations. Once the proposed mitigation area is approved by the City of Elk Grove Community Development Department, the mitigation area shall be protected by a recorded conservation easement or deed restriction and managed in accordance with a long-term management plan that maintains the habitats the conservation easement was established to protect (including the special-status plants). Additionally, a preserve management endowment shall be established to fund the long-term management outlined in the long-term management plan, or sufficient annual management funding shall be a condition of a Homeowner's Association, Community Services District, or other alternative as approved by the City. As the preservation mitigation option would preserve an existing, established population, temporal loss would not occur, and a low risk of failure would occur. As a result, the required mitigation ratio for the preservation option would be 1:1. The 1:1 ratio may be based on the acreage of occupied habitat or number of plants; the ratio shall be clearly defined in the Special-Status Plant Mitigation Plan. Alternatively, the preservation option may be implemented at a mitigation/conservation bank if the target plant species is present at the bank, and the Special-Status Plant Mitigation Plan shall describe how the purchase of bank credits translates into appropriate 1:1 preservation.*
2. *<u>Relocation or Translocation:</u> Mitigate impacts by establishment of a new special-status plant population or expansion of an existing*

special-status plant population. The proposed mitigation area may be on-site or off-site and shall be permanently protected by the recordation of a conservation easement or deed restriction, development of a long-term management plan that maintains the habitats that the conservation easement was established to protect, and include the establishment of a preserve management endowment, or sufficient annual management funding shall be a condition of a Homeowner's Association, Community Services District, or other alternative as approved by the City of Elk Grove Community Development Department or regulating agency. The Project proponent shall locate and protect the mitigation area(s), translocate seeds or relocate perennial plants to the mitigation area(s), monitor the translocated/relocated seeds/plants for a minimum of five years, and meet established success criteria as detailed in the Special-Status Plant Mitigation Plan. The minimum success criterion for the relocation or translocation option would be 2:1 replacement of directly impacted plants and 1:1 replacement for indirectly impacted plants by year five of monitoring. The 2:1 ratio may be based on the acreage of occupied habitat or number of plants; the ratio shall be clearly defined in the Special-Status Plant Mitigation Plan. If the success criteria are not met, then additional habitat shall be set aside as set forth under Option 1 or as agreed upon by the City as appropriate. Because population sizes for annual plants can vary widely from year to year, for Option 2, population counts or acreage mapping shall be conducted in the last two years of monitoring, and the highest count or acreage shall be at least equivalent to the number of required replacement plants.

3. *<u>Avoidance and Monitoring:</u> Work shall only be allowed within the Avoidance Zone if the Project proponent elects to hire a qualified biologist, as approved by the City, to determine that such work within the Avoidance Zone would not indirectly impact the plant population and then to monitor the potentially indirectly impacted plant population for five years to document the lack of impact. The allowable types of construction activities, as well as the length, width, depth, and timing of encroachment into the Avoidance Zone shall be determined by the qualified biologist. The Project proponent shall prepare a monitoring plan submitted to the applicable agency (City, CDFW, and/or USFWS), as determined by the qualified biologist, for approval prior to grading permit issuance, and that shall include monitoring methodology, success criteria (i.e., what conditions will demonstrate the lack of impact), considerations for drought years and adjacent land uses, and reporting. If at the end of the monitoring period, the population is determined to have substantially decreased, the plants shall be mitigated as outlined in Options 1 or 2 above at a ratio of 1:1.*

4.3-1(b) Prior to any ground-disturbing or vegetation-removal activities, a Worker Environmental Awareness Training (WEAT) shall be prepared and administered to the construction crews. The WEAT shall address the FESA and CESA; the Clean Water Act and/or Porter-Cologne Act; the Project's

permits and CEQA documentation and associated mitigation measures; consequences and penalties for violation or noncompliance with applicable laws and regulations; identification of special-status wildlife; location of any avoided resources; hazardous substance spill prevention and containment measures; and the contact person in the event of the discovery of a special-status species. The WEAT shall also discuss the different habitats used by the species' different life stages and the annual timing of the life stages. A handout summarizing the WEAT information shall be provided to workers to keep on-site for future reference. Upon completion of the WEAT training, workers shall sign a form to be submitted to the City of Elk Grove Community Development Department stating that they attended the training, understand the information presented and will comply with the regulations discussed. Workers shall be shown designated avoidance areas during the WEAT training; worker access shall be restricted to outside of such areas to minimize the potential for inadvertent environmental impacts. Fencing and signage around the boundary of avoidance areas shall be noted on Improvement Plans.

4.3-2 Have a substantial adverse effect, either directly or through habitat modifications, on Crotch's bumble bee. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed above, the annual brome grasslands within the study area represents suitable foraging and nesting habitat for Crotch's bumble bee. Crotch's bumble bee is a candidate for listing under CESA. Although a decision on the listing has not yet been published, a decision could be published by the time that construction begins on the Project. Development of the Project would result in impacts to the annual brome grasslands (see Figure 4.3-9). The BRA concluded that removal of such habitat could result in a substantial adverse effect to Crotch's bumble bee.

The off-site utility improvements, which were evaluated as part of the BRA, would not represent suitable habitat for Crotch's bumble bee. With respect to the off-site roundabout improvements outside of the study area, such improvements would predominantly occur within existing disturbed areas and/or within existing roadway ROW. As such, the off-site improvement areas would not provide suitable foraging and nesting habitat for Crotch's bumble bee, and would not be anticipated to result in a substantial adverse effect to Crotch's bumble bee.

Based on the above, the Project could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (Crotch's bumble bee) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

Figure 4.3-9
Land Cover Impacts

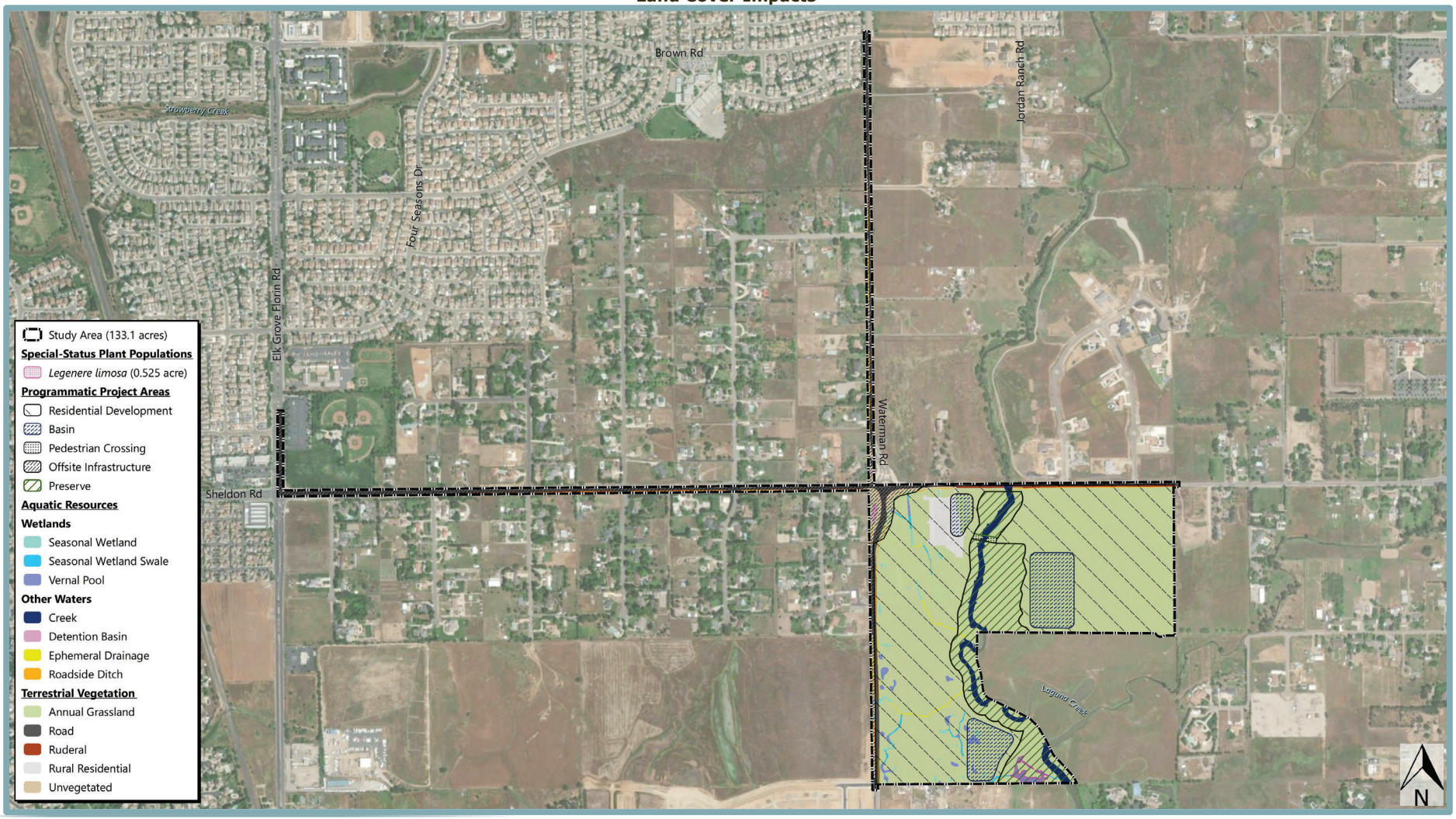


*Figure not OCR compatible.

4.3-2 *The provisions contained herein only apply if Crotch's bumble bee remains a candidate species or is listed under CESA at the commencement of construction. Following CDFW's status report on Crotch's bumble bee, if the California Fish and Game Commission finds that the petitioned action is not warranted, the provisions contained herein shall not be required.*

Initial ground-disturbing activities associated with development of any future Tentative Map (e.g., grading, vegetation removal, staging) should take place between September 1 and March 31 (i.e., outside the colony active period) to avoid potential impacts on special-status bumble bees. If initial ground-disturbing activities does not occur between September 1 and March 31, then at a maximum of 14 days prior to the commencement of construction activities, a qualified biologist shall conduct a preconstruction survey for Crotch's bumble bees in the area(s) proposed for impact.

The survey shall occur during the period from one hour after sunrise to two hours before sunset, with temperatures between 65 degrees Fahrenheit and 90 degrees Fahrenheit, with low wind and zero rain. If the timing of the start of construction makes the survey infeasible due to the temperature requirements, the surveying biologist shall select the most appropriate days based on the National Weather Service seven-day forecast and shall survey at a time of day that is closest to the temperature range stated above. The survey duration shall be commensurate with the physical extent of suitable floral resources (which represent foraging habitat) present within the area proposed for impact, and the level of effort shall be based on the metric of a minimum of one person-hour of searching per three acres of suitable floral resources/foraging habitat. A meandering pedestrian survey shall be conducted throughout the area proposed for impact in order to identify patches of suitable floral resources.

Suitable floral resources for Crotch's bumble bee include species in the following families: Apocynaceae, Asteraceae, Boraginaceae, Fabaceae, and Lamiaceae. Suitable floral resources for western bumble bee include species in the following families: Asteraceae, Fabaceae, Rhamnaceae, and Rosaceae, as well as plants in the genera Eriogonum and Penstemon.

At a minimum, preconstruction survey methods shall include the following:

- *Search areas with floral resources for foraging bumble bees. Observed foraging activity may indicate a nest is nearby, and therefore, the survey duration shall be increased when foraging bumble bees are present;*

- *If Crotch's bumble bees are observed, watch any Crotch's bumble bees present and observe their flight patterns. Attempt to track their movements between foraging areas and the nest;*
- *Visually look for nest entrances. Observe burrows, any other underground cavities, logs, or other possible nesting habitat;*
- *If floral resources or other vegetation preclude observance of the nest, small areas of vegetation may be removed via hand removal, line trimming, or mowing to a height of a minimum of four inches to assist with locating the nest;*
- *Look for concentrated Crotch's bumble bee activity;*
- *Listen for the humming of a nest colony; and*
- *If bumble bees are observed, attempt to photograph the individual and identify it to species.*

The biologist conducting the survey shall record when the survey was conducted, a general description of any suitable foraging habitat/floral resources present, a description of observed bumble bee activity, a list of bumble bee species observed, a description of any vegetation removed to facilitate the survey, and their determination of if survey observations suggest a Crotch's bumble bee nest(s) may be present or if construction activities could result in take of Crotch's bumble bees. The report shall be submitted to the City of Elk Grove Community Development Department prior to the commencement of construction activities.

If bumble bees are not located during the preconstruction survey or the bumble bees located are definitively identified as a common species (i.e., not special-status species), then further mitigation or coordination with the California Department of Fish and Wildlife (CDFW) is not required.

If any sign(s) of a bumble bee nest is observed, and if the species present cannot be established as a common bumble bee, then construction shall not commence until either (1) the bumble bees present are positively identified as common (i.e., not a special-status species), or (2) the completion of coordination with CDFW to identify appropriate mitigation measures, which may include, but not be limited to, waiting until the colony active season ends, establishment of nest buffers, or obtaining an Incidental Take Permit (ITP) from CDFW.

If Crotch's bumble bees are located, and, after coordination with CDFW, take of Crotch's bumble bees cannot be avoided, the Project applicant shall obtain an ITP from CDFW, and the applicant shall implement all conditions identified in the ITP.

Consistent with Fish and Game Code Section 2081, mitigation required by any ITP obtained from CDFW shall minimize and fully mitigate any impacts of the authorized take, be roughly proportional in extent to the impact of the take, be capable of successful implementation, and,

where various alternative measures are available, maintain the applicant's objectives to the greatest extent possible. Specific required permit conditions may include, but not be limited to, the Project applicant's qualified biologist translocating nesting substrate in accordance with the latest scientific research to another suitable location (i.e., a location that supports similar or better floral resources as the impact area), enhancing floral resources on areas of the site that will remain appropriate habitat, worker awareness training, and/or other measures specified by CDFW.

4.3-3 Have a substantial adverse effect, either directly or through habitat modifications, on special-status branchiopod species. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The identified special-status branchiopod species with the potential to occur within the study area include vernal pool fairy shrimp and vernal pool tadpole shrimp. The vernal pool fairy shrimp is federally listed as threatened, while the vernal pool tadpole shrimp is federally listed as endangered. The BRA study area contains approximately 1.3 acres of vernal pool, 0.45-acre of seasonal wetland, and 0.29-acre of seasonal wetland swale that are considered potential habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp. On-site vernal pool habitat would be permanently impacted by development of the Project (see Figure 4.3-9). Protocol-level surveys have not been conducted for vernal pool fairy shrimp and vernal pool tadpole shrimp in the study area. Therefore, the BRA concluded that the potential exists for the species to exist within the study area, and construction of the Project could result in potential impacts to the foregoing species.

With respect to the off-site roundabout improvements outside of the study area, such improvements would predominantly occur within existing disturbed areas and/or within existing roadway ROW. As such, the off-site roundabout improvement areas would not provide suitable vernal pool, seasonal wetland, or seasonal wetland swale habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp, and improvements to the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections would not be anticipated to result in a substantial adverse effect to the aforementioned species.

Based on the above, the Project could have a substantial adverse effect, either directly or through habitat modifications, on a branchiopod species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.3-3 *Prior to the approval of any future Tentative Map, a qualified biologist shall conduct surveys for special-status branchiopod species in accordance with the USFWS Survey Guidelines for the Listed Large*

Branchiopods. The results of the survey shall be submitted to the City of Elk Grove Community Development Department prior to the commencement of construction activities. If vernal pool fairy shrimp and vernal pool tadpole shrimp are not found during protocol-level wet and dry season surveys, further mitigation shall not be required.

If vernal pool fairy or vernal pool tadpole shrimp are found during protocol-level wet or dry season surveys of the vernal pool, seasonal wetland, and seasonal wetland swale, or if protocol-level surveys are not conducted and the presence of the species is assumed, and if avoidance of all potential vernal pool fairy shrimp and vernal pool tadpole shrimp habitat is not possible, as determined by the Project contractor and qualified biologist, the Project proponent or the USACE (depending on the regulatory mechanism) shall consult with the USFWS regarding impacts to vernal pool fairy or vernal pool tadpole shrimp associated with the Project. Regardless of the consultation method, the USFWS shall assign measures to avoid, minimize, and mitigate impacts to vernal pool fairy shrimp and vernal pool tadpole shrimp and shall require compensatory mitigation. Compensatory measures shall include the following:

- *The Project proponent shall prepare a Biological Assessment, including details on potential impacts to and mitigation for impacts to vernal pool fairy shrimp and vernal pool tadpole shrimp, to be submitted to the USACE and/or USFWS.*
- *The Project proponent shall abide by mitigation measures developed during the course of the FESA consultation. At a minimum, the applicant shall preserve two acres of vernal pool branchiopod habitat for each acre of unsurveyed or documented occupied habitat impacted. Measures could include preservation, restoration, or enhancement of habitat on- or off-site, purchase of habitat credits from a USFWS-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to USFWS.*
- *The Project proponent shall ensure that vernal pools and seasonal wetlands that would not be filled are protected during construction by installing exclusion fencing at the edge of the permitted impact area. Construction-related activity may not take place in the exclusion area, and exclusion fencing shall be designed to prevent the discharge of storm water runoff from the impact area into the exclusion zone. Exclusion fencing shall be inspected by the project biologist or a trained on-site monitor at least weekly and immediately before and after storm events. Any breaches to the exclusion fencing shall be reported to the project biologist and repaired promptly. The exclusion fencing shall remain in place until all ground-disturbing construction activity is completed.*

4.3-4 Have a substantial adverse effect, either directly or through habitat modifications, on monarch butterfly. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Adult monarch butterflies require a diversity of blooming nectar resources during breeding and migration (spring through fall). Monarchs also need milkweed (for both oviposition and larval feeding) embedded within the diverse nectaring habitat. The study area supports patches of narrow-leaf milkweed and wooly pod milkweed. Therefore, if milkweed plants are removed during construction, and monarch eggs, larvae, and/or chrysalis are present, construction of the Project could result in potential impacts to monarch butterfly.

Based on the above, the Project could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (monarch butterfly) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.3-4 *The provisions contained herein only apply if monarch butterfly remains proposed for listing under FESA at the commencement of construction.*

If construction associated with development of any Tentative Map occurs during the time when milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late September), a preconstruction survey shall be conducted by a qualified biologist within the proposed impact area and a 50-foot buffer in accessible areas for the presence of eggs, larvae (i.e., caterpillars), or pupae, at most, 14 days prior to plant removal. Additionally, other plants immediately adjacent to milkweed plants shall also be searched for chrysalises. If eggs, caterpillars, or pupae are not detected, additional protection measures are not necessary. A report summarizing the results of the survey shall be submitted for review and approval to the City of Elk Grove Community Development Department.

If eggs, caterpillars, or pupae are found, the plants shall be avoided with a 50-foot buffer until metamorphosis is completed and adult butterflies emerge and leave the host plant. If the eggs, larvae, or chrysalises cannot be avoided, all eggs, larvae, and chrysalises, including the portion of the plant to which they are attached, shall be translocated to an alternative location by a qualified biologist. The location must be a minimum of 50 feet outside of the impact area and contain a similarly sized or larger population of larval host plants. The portions of the plants supporting eggs or chrysalises shall be tied to the live stem of the avoided larval host plant while caterpillars shall be placed directly on a stem or leaf of a larval host plant. Should the

species be listed under FESA in the future, coordination with USFWS shall be conducted prior to translocation.

4.3-5 Have a substantial adverse effect, either directly or through habitat modifications, on western spadefoot. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Western spadefoot, which is proposed for federal listing and is a CDFW Species of Special Concern, is a nocturnal amphibian that forages in grassland, open chaparral, and pine-oak woodlands for a variety of invertebrates, such as insects and worms, and breeds in a variety of temporary wetlands, including creeks, pools in intermittent drainages, vernal pools, and seasonal wetlands, and other fish-free water features. Vernal pools and seasonal wetlands within the study area represent potential aquatic habitat for western spadefoot, and the surrounding annual brome grasslands provide suitable dry-season (upland) habitat. The study area has not been surveyed for western spadefoot, and the species could be present. As such, disturbance of the on-site seasonal wetlands, vernal pools, and annual brome grasslands associated with Project buildout could substantially adversely affect western spadefoot.

With respect to the off-site roundabout improvements outside of the study area, such improvements would predominantly occur within existing disturbed areas and/or within existing roadway ROW. As such, the off-site roundabout improvement areas would not provide suitable aquatic or upland habitat for western spadefoot, and improvements to the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections would not be anticipated to result in a substantial adverse effect to western spadefoot.

Based on the above, the Project could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (western spadefoot) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.3-5 *Prior to the commencement of construction activities associated with any future Tentative Map, a survey of all suitable aquatic habitat on the site and off-site improvement areas (including features proposed for avoidance) shall be conducted by sampling the features thoroughly with dipnets during March or early April, when spadefoot tadpoles would be present. In addition, one nocturnal acoustic survey of all areas within 300 feet of vernal pools and seasonal wetlands shall be conducted. The acoustic survey shall consist of walking through the area and listening for the distinctive snore-like call of the species. Timing and methodology for the acoustic survey shall be based on those described in Distribution of the Western Spadefoot (Spea hammondii) in the Northern Sacramento Valley of California, with Comments on Status*

and Survey Methodology. The results of the survey shall be submitted to the City of Elk Grove Community Development Department. Note that due to the timing requirements, the surveys would likely occur several months before commencement of construction. If the aquatic survey and the nocturnal acoustic survey are negative, further mitigation shall not be necessary.

If western spadefoot is found within the proposed work area (any area that would be temporarily or permanently disturbed) and the species is not a federally-listed species at the time of construction, the following mitigation measure shall be implemented:

- *Western spadefoot tadpoles (as many as are reasonably possible to capture) shall be captured and relocated by a CDFW-approved biologist either to on-site avoided and fenced aquatic habitat, or to an off-site open space preserve with suitable habitat in the vicinity of the study area. If western spadefoot is observed within aquatic habitat proposed for avoidance, then the Project proponent shall either (1) relocate the tadpoles to an off-site open space preserve with suitable habitat in the vicinity of the study area, or (2) install silt fencing along the edge of the proposed impact area within 300 feet of the occupied aquatic habitat to prevent metamorphosed individuals from dispersing into the construction area.*

If western spadefoot is identified within the proposed work area and the species is a federally-listed species at the time of construction, the following mitigation measure shall be implemented:

- *The Project proponent shall consult with the USFWS regarding impacts to western spadefoot associated with the Project. The Project proponent shall obtain and comply with any conditions of the appropriate take authorization from the USFWS. The conditions in the take authorization may include, but shall not be limited to fencing off avoided habitat, worker awareness trainings, preservation, restoration, or enhancement of habitat on- or off-site to compensate for indirect and/or direct effects; purchase of habitat credits from an agency- approved mitigation/conservation bank; working with a local land trust to preserve land; or any other method acceptable to USFWS.*

If western spadefoot is found adjacent to but outside of the work area, the following measures shall be implemented:

- *The Project proponent shall install exclusion fencing to prevent western spadefoot from moving into the active construction area. Installation of spadefoot exclusion fencing shall be monitored by a qualified biologist. The fencing shall be inspected and repaired, if necessary, at least weekly. The*

fencing may be removed following the completion of construction.

- *After the exclusion fencing is installed, a western spadefoot survey shall be conducted no more than 24 hours prior to construction in areas within 300 feet of suitable aquatic habitat. If western spadefoot are not found, further mitigation is not necessary. If a western spadefoot is observed within the proposed impact area, a CDFW-approved biologist shall relocate the individual to suitable habitat outside of the proposed impact area prior to construction.*
- *If western spadefoot move into the work area at any time, work shall cease, and the Project biologist shall be notified. A CDFW-approved biologist shall relocate the individual to suitable habitat outside of the impact area.*

4.3-6 Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Laguna Creek within the BRA study area provides suitable aquatic habitat for northwestern pond turtle, which is proposed for listing as threatened under FESA and is a CDFW Species of Special Concern. In addition, the surrounding annual brome grasslands provide suitable nesting habitat. In the event that northwestern pond turtles or their nests are present in such areas during construction activities, individual turtles could be injured or killed, or nests could be destroyed.

With respect to the off-site roundabout improvements outside of the study area, such improvements would primarily occur within existing disturbed areas and/or within existing roadway ROW. The Sheldon Road/Waterman Road intersection would not provide suitable aquatic or nesting habitat for northwestern pond turtle. However, a culvert across a Laguna Creek tributary currently exists at the Sheldon Road/Bradshaw Road intersection. Therefore, aquatic features in the vicinity of the intersection could provide suitable habitat for northwestern pond turtle, and improvements to the Sheldon Road/Bradshaw Road intersection could result in a substantial adverse effect to northwestern pond turtle.

Based on the above, the Project could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (northwestern pond turtle) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.3-6 If construction associated with any future Tentative Map would affect inundated portions of Laguna Creek during the active season of

northwestern pond turtle (generally April to September), the Project proponent shall conduct a northwestern pond turtle survey to determine whether the species is using Laguna Creek. The survey shall be conducted in accordance with visual encounter survey guidance provided in Chapter 4 of Western Pond Turtle: Biology, Sampling Techniques, Inventory and Monitoring, Conservation, and Management. If northwestern pond turtles are not observed using the aquatic habitat, further mitigation is not necessary.

If northwestern pond turtles are observed using Laguna Creek within the proposed work area and the species is not a federally listed species at the time of construction, the following measures shall be implemented:

- *Project work within 325 feet of Laguna Creek shall be implemented during the turtles' active season (generally April through September). If northwestern pond turtles are documented to have left the vicinity of the Project, work within 325 feet of Laguna Creek may occur outside of this work window.*
- *Prior to dewatering the work area, a qualified biologist shall prepare a northwestern pond turtle avoidance and management plan for review and approval by the City of Elk Grove Community Development Department. The plan shall include requirements for monitoring during the dewatering process to ensure turtles are not harmed; turtle capture and relocation; exclusion fencing to prevent turtle movement into the work area following dewatering; and encounter protocol should northwestern pond turtles move into the work area following dewatering.*

If northwestern pond turtles are observed using Laguna Creek within the proposed work area and the species is a federally-listed species at the time of construction, the following mitigation measure shall be implemented:

- *The Project proponent shall consult with the USFWS regarding impacts to northwestern pond turtle associated with the Project. The Project proponent shall obtain and comply with any conditions of the appropriate take authorization from the USFWS. The conditions in the take authorization may include, but shall not be limited to fencing off avoided habitat, ceasing construction around northwestern pond turtles found on-site, and allowing the turtles to leave on their own, worker awareness trainings, preservation, restoration, or enhancement of habitat on- or off-site to compensate for indirect and/or direct effects; purchase of habitat credits from an agency-approved mitigation/conservation bank; working with a local land trust to preserve land; or any other method acceptable to USFWS.*

If northwestern pond turtles are observed using Laguna Creek adjacent to but outside of the work area, the following measures shall be implemented:

- *The Project proponent shall install exclusion fencing to prevent turtles from moving into the active construction area. The fencing shall be inspected and repaired, if necessary, at least weekly. The fencing may be removed following the completion of construction.*
- *After the exclusion fencing is installed, a northwestern pond turtle survey shall be conducted no more than 24 hours prior to construction in areas within 325 feet of the limits of inundated areas of Laguna Creek. If northwestern pond turtles are not found, further mitigation is not necessary. If a northwestern pond turtle is observed within the proposed impact area, a qualified biologist shall relocate the individual to suitable habitat outside of the proposed impact area prior to construction.*
- *If northwestern pond turtles move into the work area at any time, work shall cease, and the Project biologist shall be notified. A qualified biologist shall relocate the individual to suitable habitat outside of the impact area.*

4.3-7 Have a substantial adverse effect, either directly or through habitat modifications, on nesting birds and raptors protected under the MBTA and CFGC. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

According to the BRA, although ground squirrel burrows were not observed within the study area, the annual brome grassland that throughout the study area provides suitable foraging habitat for burrowing owl, and debris piles within the study area provide marginally suitable burrow habitat for burrowing owl. If ground disturbance would occur while burrowing owls were in burrows on-site, individuals of the species could be killed. Similarly, the study area provides suitable nesting habitat to accommodate nesting songbirds and raptors protected under the MBTA and CFGC; such species include, but are not limited to, Swainson's hawk, white-tailed kite, northern harrier, tricolored blackbird, and loggerhead shrike. If nesting songbirds and raptors protected under the MBTA and CFGC were nesting on-site and/or within the off-site improvement areas, removal of the nest could kill individuals of the species. Furthermore, birds nesting in avoided areas adjacent to construction could be disturbed by construction, which could result in nest abandonment.

The annual brome grassland within the study area provides suitable foraging habitat for burrowing owl, Swainson's hawk, white-tailed kite, northern harrier, golden eagle, and other more common raptors. Removal of the annual brome grassland by the proposed development could reduce foraging opportunities and reproductive success of raptors nesting in the area.

Based on the above, the project could have a substantial adverse effect, either directly or through habitat modifications, on nesting songbirds and raptor species protected under the MBTA and CFGC. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.3-7(a) *If ground disturbance or other construction activities associated with any future Tentative Map are proposed during the bird nesting season (February 1–August 31), a focused survey for nesting raptors and migratory bird nests shall be conducted by a qualified biologist within 14 days prior to the beginning of construction activities in order to identify active nests. In addition, preconstruction (take avoidance) burrowing owl surveys of suitable habitat shall be conducted consistent with the CDFW Staff Report on Burrowing Owl Mitigation. Non-breeding season protocol shall be used for surveys conducted when construction begins between September 1 and January 31 and breeding season protocol shall be used for surveys conducted when construction begins between February 1 and August 31. The survey(s) shall be conducted within the proposed construction area and all accessible areas within the following buffer areas:*

- *0.25 mile for Swainson's hawk,*
- *500 feet for tree-nesting raptors and burrowing owls, and*
- *50 feet for all other species*

If active nests/burrows are not found, further mitigation is not required. Surveys must be repeated if a lapse in construction activity exceeds 14 days and construction resumes during the nesting season. If active nests/burrows are found the following measures shall be required:

- *Active raptor nests: Construction activities shall not take place within 0.25-mile for Swainson's hawk or within 500 feet of other raptor nest(s). The buffer(s) may be removed once a qualified biologist determines the young have fledged and/or are no longer dependent on the nest;*
- *Occupied burrowing owl burrows: A minimum buffer of 164 feet shall be established and maintained around the occupied burrow throughout construction. The actual buffer size shall be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation and may be as large as 1,640 feet. Construction activities shall not take place within the buffer, and the no-disturbance buffer shall be marked on-site. The buffer may be removed once a qualified biologist determines that the burrow is no longer occupied;*
- *Active tricolored blackbird nests: Construction activities shall not take place within 500 feet of active nesting colonies, and a*

no-disturbance buffer shall be marked on-site. The Project proponent shall coordinate with the City of Elk Grove Community Development Department and CDFW to identify appropriate monitoring requirements;

- *Active nests of other birds: Construction activities shall not take place within 100 feet of an active nest, and the no-disturbance buffer shall be marked on-site. The buffer may be removed once a qualified biologist determines the young have fledged and/or are no longer dependent on the nest.*

No-disturbance buffers for all species may be reduced based on consultation and approval by the City for Swainson's hawk, burrowing owl, and tricolored blackbird. The perimeter of protected areas on-site shall be indicated by bright orange temporary fencing. Construction activities or personnel shall not enter protected areas, except with approval of the biologist. If trees containing nests or nests/burrows must be removed as a result of Project implementation, removal shall be completed during the nonbreeding season (September 1 to January 31) if possible, or after a qualified biologist determines that the young have fledged (during the breeding season). Survey results shall be provided to the City of Elk Grove Community Development Department within 14 days of completion of all surveys.

4.3-7(b) *The Project applicant shall implement the following measures to mitigate the potential loss of Swainson's hawk foraging habitat prior to the commencement of construction activities (e.g., grading activities, infrastructure construction) associated with any future Tentative Map: The Project applicant shall acquire conservation easements or other instruments to preserve suitable foraging habitat for Swainson's hawk. The location of the mitigation parcels, as well as the conservation instruments protecting them, shall be approved by the City.*

- *The Project applicant shall acquire conservation easements or other instruments to preserve suitable foraging habitat for Swainson's hawk. The location of the mitigation parcels, as well as the conservation instruments protecting them, shall be approved by the City.*
- *The amount of land preserved shall be at a ratio provided in Chapter 16.130, Swainson's Hawk Mitigation Fees of the Elk Grove Municipal Code, for each acre developed at the site. In deciding whether to approve the land proposed for preservation, the City shall consider the benefits of preserving lands in proximity to other protected lands. The preservation of land shall be secured before any site disturbance, such as clearing or grubbing, or the issuance of any permits for grading, building, or other site improvements, whichever occurs first.*
- *The Project applicant shall implement the following minimum conservation easement content standards, or such other*

requirements as may be updated by the City Council from time to time and as provided in Chapter 16.130:

- *The land to be preserved must be found to be suitable Swainson's hawk foraging habitat as determined by the City based on substantial evidence.*
- *The land shall be protected through either fee title or a conservation easement ("legal agreement") acceptable to the City.*
- *The legal agreement shall be recordable and contain an accurate legal description of the mitigation land.*
- *The legal agreement shall prohibit any activity that in the sole discretion of the City substantially impairs or diminishes the land's capacity as suitable Swainson's hawk foraging habitat.*
- *If the land's suitability as foraging habitat is related to existing agricultural uses on the land, the legal agreement shall protect any existing water rights necessary to maintain such agricultural uses on the land covered by the document and retain such water rights for ongoing use on the mitigation land.*
- *Mitigation monitoring fees shall be paid to cover the costs of administering, monitoring, and enforcing the document in an amount determined by the City or a third-party receiving entity approved by the City, not to exceed 10 percent of the easement price or a different amount approved by the City Council.*
- *Interests in mitigation land shall be held in trust by an entity acceptable to the City and/or the City in perpetuity. The entity shall not sell, lease, or convey any interest in mitigation land without the prior written approval of the City.*
- *The City shall be named a beneficiary under any legal agreement conveying the interest in the mitigation land to an entity acceptable to the City, and the City shall receive indemnification and defense, and in any legal agreement.*
- *If any qualifying entity owning an interest in mitigation land ceases to exist, the duty to hold, administer, monitor, and enforce the interest shall be transferred to another entity acceptable to the City or to the City.*

- *Before committing to the preservation of any land, the applicant shall obtain approval of the land proposed for preservation.*

4.3-7(c) *If nesting burrowing owls are found during the preconstruction survey required by Mitigation Measure 4.3-7(a), mitigation for the permanent loss of burrowing owl foraging habitat (defined as all areas of suitable habitat within 250 feet of the active burrow) shall be accomplished at a*

1:1 ratio prior to the approval of any future Tentative Maps. The mitigation provided shall be consistent with recommendations in the CDFW Staff Report on Burrowing Owl Mitigation and may be accomplished within the Swainson's hawk foraging habitat mitigation area for the Project if burrowing owls have been documented using the area, or if the qualified biologist, the City, and CDFW collectively determine that the mitigation strategy is suitable for both species.

4.3-8 Have a substantial adverse effect, either directly or through habitat modifications, on roosting bats. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The pallid bat, Townsend's big-eared bat, and western red bat are California Species of Special Concern and classified as Western Bat Working Group High Threat Rank, and silver-haired bat and hoary bat are classified as Western Bat Working Group Medium Threat Rank. Pursuant to the BRA, the buildings and trees throughout the study area provide roosting habitat for the foregoing special-status bats species. As such, if special-status bats were roosting in trees or buildings proposed for removal during project construction, or areas within the footprint of the off-site improvements, the bats could be injured or killed.

Based on the above, the Project could have a substantial adverse effect, either directly or through habitat modifications, on a bat species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.3-8 *Prior to the commencement of construction activities associated with any future Tentative Map, a qualified biologist shall conduct a bat habitat assessment of all potential roosting habitat features, including trees and structures within the proposed impact footprint within the Project vicinity. The habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one year prior to the start of construction. The results of the assessment shall be submitted to the City of Elk Grove Community Development Department.*

- *If potential roosting habitat is identified (cavities in trees or potential roosts within structures) within the areas proposed for impact, the biologist shall survey the potential roosting habitat during the active season (generally April through October or from January through March on days with temperatures in excess of 50 degrees Fahrenheit) to determine the presence of roosting bats. The surveys are recommended to be conducted utilizing methods that are considered acceptable by bat experts*

after consultation with CDFW. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras, or a combination thereof.

- *If roosting bats are identified within any of the trees planned for removal, or if presence is assumed, the trees shall be removed outside of pup season, only on days with temperatures in excess of 50 degrees Fahrenheit. Pup season is generally during the months of May through August. Two-step tree removal shall be utilized under the supervision of the qualified biologist. Two-step tree removal involves removal of all branches of the tree that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree.*
- *Additionally, all other tree removal shall be conducted from January through March on days with temperatures in excess of 50 degrees Fahrenheit to avoid potential impacts to foliage-roosting bat species.*
- *If roosting bats are identified within any structures planned for removal, a bat exclusion plan shall be prepared by a qualified bat biologist describing the methods to be used to humanely exclude bats prior to disturbance. The plan shall be approved by the City of Elk Grove Community Development Department after consultation with CDFW and shall be implemented prior to the start of construction.*
- *The requirements for the bat expert and City to consult with CDFW prior to approving survey methods and a bat exclusion plan shall be satisfied either where CDFW responds to requests for consultation within 30 days of the requests or where the bat expert and City have attempted to consult with CDFW but CDFW has failed to respond to the request within 30 days of the placement of the request.*

4.3-9 Have a substantial adverse effect, either directly or through habitat modifications, on American badger. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The annual brome grasslands on-site provide potential habitat for American badger. If the species is present during project construction, American badgers could be directly impacted.

With respect to the off-site roundabout improvements outside of the study area, such improvements would primarily occur within existing disturbed areas and/or within existing roadway ROW. As such, the off-site roundabout improvement areas would not provide suitable grassland habitat for American badger, and improvements to the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections would not be anticipated to result in a substantial adverse effect to American badger.

Based on the above, the Project could have a substantial adverse effect, either directly or through habitat modifications, on a special-status wildlife species (American badger) identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.3-9 *The Project applicant shall retain a qualified biologist to conduct a preconstruction survey to determine the presence or absence of badgers prior to initiation of ground-disturbing activities associated with any future Tentative Map. If badgers are not identified, further mitigation is not required. If an active badger den is identified during preconstruction surveys within or immediately adjacent to an area subject to construction, a qualified biologist shall establish a construction-free buffer of up to 300 feet around the badger den. Once the biologist has determined that the badger has vacated the burrow, the burrow can be collapsed or excavated, and ground disturbance can proceed. Should the burrow be determined to be a natal or reproductive den, and because badgers are known to use multiple burrows in a breeding burrow complex, a biological monitor shall be present on-site during construction activities in the vicinity of the burrows to ensure that the buffer is adequate to avoid direct impact to individuals or natal/reproductive den abandonment. The monitor shall be required to be present until the badger young are determined to be of an independent age and construction activities would not harm individual badgers. A written summary of the survey results shall be submitted to the City of Elk Grove Community Development Department.*

4.3-10 Have a substantial adverse effect on any riparian habitat or other sensitive natural community, or State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. While a portion of Laguna Creek is located within the study area, according to the BRA, the study area does not include riparian habitat or other Sensitive Natural Communities. The land cover adjacent to Laguna Creek is classified as annual brome grassland.

Wetlands are generally considered to be areas that are periodically or permanently inundated by surface or groundwater, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and

national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. The USACE, RWQCB, and CDFW have jurisdiction over modifications to stream channels, river banks, lakes, and other wetland features. The USACE's jurisdiction is established through the provisions of Section 404 of the CWA, and the jurisdictional authority of the RWQCB is established pursuant to Section 401 of the CWA, which typically requires a water quality certification when an individual or nationwide permit is issued by the USACE. The RWQCB also has jurisdiction over waters of the State under the Porter-Cologne Water Quality Control Act.

A total of approximately 6.12 acres of aquatic resources were delineated within the study area in accordance with the USACE Sacramento District's Minimum Standards for Acceptance of Preliminary Wetlands Delineations. The aquatic resources delineation of the on-site areas was verified by the USACE with a PJD and aquatic resources were determined to be potentially jurisdictional, regulated under Section 404 of the CWA.[14] An aquatic resources delineation of the off-site improvement areas, including the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabout improvement areas, has not been submitted to the USACE for verification to date. Therefore, if any associated aquatic resources are located within such areas and are determined to be jurisdictional, a Section 404 and/or 401 permit would be required.

The Project may result in impacts to seasonal wetlands, seasonal wetland swales, vernal pools, small portions of Laguna Creek, detention basins, ephemeral drainages, and/or roadside ditches. Impacts to the detention basins, roadside ditches, and Laguna Creek tributary within the off-site areas may be mostly temporary, but the impacts to other feature types would likely be mostly permanent. If the USACE or RWQCB takes jurisdiction over the aquatic resources within the study area, impacts would need to be assessed for the Project. As such, if determined necessary, the Project would be required to obtain a Section 404 permit from the USACE and a Section 401 permit from the RWQCB and would be subject to all the conditions set forth by said permits.

Based on the above, without obtaining a Section 404 permit from the USACE and a Section 401 permit from the RWQCB and compliance with all the conditions set forth by said permits, the Project could have a substantial adverse effect on State- or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.3-10(a) *Prior to the approval of any improvement plans, the project proponent shall submit a formal Aquatic Resources Delineation for the on- and off-site areas to the U.S. Army Corps of Engineers (USACE) for verification*

[14] U.S. Army Corps of Engineers, Sacramento District. *Preliminary Jurisdictional Determination. SPK-1990-01278*. May 26, 2023.

purposes and determination as to whether the Project activities will require a Clean Water Act (CWA) Section 404 permit. The Aquatic Resources Delineation shall be conducted in accordance with the USACE Sacramento District's Minimum Standards for Acceptance of Preliminary Aquatic Resources Delineations and the USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). The Aquatic Resources Delineation shall also document the expected impact on the jurisdictional wetlands and waters that would result from the project. A copy of the USACE's determination shall be submitted to the City of Elk Grove Community Development Department.

4.3-10(b) *If a CWA Section 404 permit is determined to be necessary, prior to the issuance of grading permits, the Project applicant shall apply for and obtain a Section 404 permit from the USACE. Waters that would be lost or disturbed shall be restored, replaced or rehabilitated on a "no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE. In the event that a Section 404 permit is required, the Project applicant shall also apply for and obtain a Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB) prior to the issuance of grading permits and adhere to the certification conditions therein. The Project applicant shall submit a Report of Waste Discharge to the Central Valley RWQCB with a request for waste discharge requirements and adhere to the waste discharge requirements.*

4.3-10(c) *If the final Project design would result in permanent impacts to aquatic resources that meet the definition of a river or stream under the California Code of Regulations, riparian vegetation or the 100-year floodplain of a river or stream, the Project proponent shall notify CDFW of the proposed alteration pursuant to Fish and Game Code Section 1600, Lake or Streambed Alteration prior to approval of any future Tentative Maps. Minimization and avoidance measures shall be proposed as appropriate and may include preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase of habitat credits from an agency-approved mitigation/conservation bank off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW.*

4.3-11 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. Based on the analysis below, the impact is *less than significant*.

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation also occurs when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance, such as fire, mudslide, or grading activities. Wildlife corridors mitigate the effects of fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thereby reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

The portion of Laguna Creek within the BRA study area serves as a wildlife corridor for a wide variety of terrestrial wildlife. However, the wildlife corridor is planned to be preserved within a 20.3-acre Laguna Creek Open Space area to allow for the preservation of the Laguna Creek corridor and protection of sensitive on-site habitat (see Figure 4.3-9). The only potential impediment to wildlife movement along the Laguna Creek corridor that would occur as a result of the Project would be the development of a pedestrian bridge crossing over Laguna Creek. However, the creek crossing would be designed to be large enough to accommodate terrestrial wildlife movement in upland areas adjacent to the creek. As such, the creek crossing would not result in an impact to wildlife corridors.

Based on the above, the Project would not 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. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.3-12 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or have a substantial adverse effect on the environment by converting oak woodlands or impacting individual trees. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed above, the site contains a total of 30 trees, including 10 trees of local importance pursuant to the City's Tree Preservation and Protection Ordinance. According to the Arborist Report, the only trees of local importance that would be impacted by the Project are the two California black walnuts that are both recommended for removal due to poor condition. However, because the final development plan is currently undetermined, the Project could result in additional potential impacts to trees of local importance.

The City requires a Tree Permit to conduct work within the critical root zone, cut down, remove, top, or relocate any landmark tree, tree of local importance, secured tree, or tree in the ROW or on City property. While the Arborist Report did not include a survey of the off-site improvement areas, according to the BRA, protected trees may occur within the BRA study area. The off-site roundabout improvement areas do not include any large trees (more than six inches in diameter).

Any trees subject to the City's Tree Preservation and Protection Ordinance proposed for removal as a result of the Project would be required to obtain a Tree Permit in accordance with the requirements set forth in EGMC Chapter 19.12, pay all applicable fees, and comply with the provisions set forth therein by said permit.

Based on the above, without compliance with requirements set forth by EGMC Chapter 19.12, development of the Project could conflict with a local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

4.3-12 *Prior to ground-disturbing activities and work within the critical root zone, removal, topping, or relocation of any tree of local importance, a Tree Permit shall be obtained from the City of Elk Grove, Planning Division, and the Project applicant shall comply with all of the conditions of the permit. As part of the approval of a Tree Permit for removal of a tree, the Project applicant shall mitigate for the loss of the trees consistent with Article IV (Mitigation for Tree Loss) of EGMC Chapter 19.12. A tree mitigation plan shall be submitted to and approved by the City Arborist. Unless an alternative mitigation is approved by the City Arborist, as provided in EGMC Section 19.12.180 (Alternative mitigation requirements), the tree mitigation plan shall include the following mitigation options to ensure mitigation for the loss of protected trees is provided at a ratio of one new inch diameter at standard height (DSH) of tree for each inch DSH lost (1:1 ratio):*

- *On-Site or Off-Site Replacement. The plan shall specify where the tree(s) shall be planted and how the tree(s) shall be monitored and maintained for a minimum of five years. The City may require the establishment of a performance bond or other surety as a way to ensure that the replacement trees survive for the minimum establishment period as provided in EGMC Section 19.12.190. The City shall allow the use of on-site trees planted under a mitigation plan as a way to meet any other on-site landscaping requirement, including parking lot shading, street landscaping, and street trees on residential lots;*
- *Payment of an In-Lieu Fee as Adopted by Resolution of the City Council. The Project applicant may pay an in-lieu fee for the loss of the tree(s) at a rate established by the City Council. Such*

monies shall be deposited in the tree preservation fund as described in EGMC Section 19.12.220; or

- *Credit for Existing Trees Smaller Than When a Permit Is Required. The Project applicant may be entitled to mitigation credit when species of trees that are listed in EGMC Section 19.12.040 (Trees of local importance) are preserved, but are smaller than the size threshold defined in EGMC Section 19.12.040 (i.e., less than six inches DSH). The City Arborist shall make the determination after reviewing the location of the tree(s), the quality of the environment (both pre- and post-project) in which the tree(s) is located, potential impacts to the tree(s) from proposed development, and other relevant factors that the City Arborist deems relevant to the long-term viability of the tree(s). If approved for credit, retained trees shall receive a credit of one inch DSH per tree for trees between two and five inches DSH. The City may require the establishment of a performance bond or other surety as a way to ensure that the tree(s) survive for the minimum establishment period as provided in EGMC Section 19.12.190.*

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

The cumulative setting for impacts related to biological resources encompasses development of the Project in conjunction with buildout of the Elk Grove General Plan planning area, as well as a list of present and probable future projects. For more details regarding the cumulative setting, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.3-13 Cumulative loss of habitat for special-status species. Based on the analysis below, the project's incremental contribution to the significant cumulative impact is *less than cumulatively considerable*.

The geographic setting for analysis of long-term cumulative changes in visual character associated with the Project is the City of Elk Grove General Plan planning area within the vicinity of the site, as development facilitated by the foregoing portion of the planning area has the potential to affect similar biological resources analyzed in this EIR for the Project. Due to the conversion of currently undeveloped land to a residential development, implementation of the Project, in combination with other development within the City of Elk Grove planning area, would result in a significant cumulative impact related to the loss of special-status species habitat.

The City of Elk Grove General Plan Update EIR identified significant and unavoidable impacts related to special-status species, and less-than-significant impacts related to

wildlife movement and sensitive habitats with implementation of existing regulations and General Plan policies. The Project, in conjunction with approved and proposed development in the vicinity of the site, would contribute to the identified cumulative biological resource impacts anticipated under buildout of the General Plan.

As discussed above, the study area contains a variety of land covers, including annual brome grassland, road, ruderal, rural residential, and unvegetated. In addition, the study area includes aquatic resources, including seasonal wetland, seasonal wetland swale, vernal pools, Laguna Creek, detention basin, ephemeral drainage, and roadside ditch. Development of the proposed on-site and off-site Project components would result in potential impacts to portions of the foregoing areas. As discussed above, the aforementioned areas represent potential habitat for various special-status species listed in Table 4.3-3.

A wide range of mitigation is provided herein to minimize the Project's potential adverse effects to habitat for special-status species. For example, mitigation measures have been set forth in this chapter to ensure that on-site surveys for special-status plant and wildlife species are conducted prior to commencement of construction activities and, if species are identified during such surveys, appropriate procedures are carried out to avoid or reduce impacts. Potential impacts to protected aquatic resources are addressed through mitigation requiring compliance with Sections 404 and 401 of the CWA and Fish and Game Code Section 1600, Lake or Streambed Alteration. In addition, while the Project would result in the loss of a portion of the existing on-site habitat, the Project would include the 20.3-acre Laguna Creek Open Space area to allow for the preservation of the Laguna Creek corridor and the protection of sensitive on-site wildlife habitat. Such preservation would ensure that portions of the existing habitat within the site remain undisturbed, following implementation of the Project. Overall, with incorporation of the mitigation measures set forth herein, potential impacts to biological resources would be reduced to less-than-significant levels. As such, the Project would not result in substantial adverse effects to biological resources protected by CEQA. Furthermore, similar to the Project, all future development projects would be required to implement project-specific mitigation measures to ensure impacts are reduced to the maximum extent feasible.

As further discussed in Chapter 6 of this EIR, CEQA Guidelines Section 15064(h)(5), states, "[…] the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are identified as significant, any level of incremental contribution is not necessarily deemed cumulatively considerable. In addition, the courts have explicitly rejected the notion that a finding of significance is required simply because a proposed project would result in a net loss of habitat. "[M]itigation need not account for every square foot of impacted habitat to be adequate. What matters is that the unmitigated impact is no longer significant," (*Save Panoche Valley v. San Benito County* [2013] 217 Cal.App.4th 503, 528, quoting *Banning Ranch Conservancy v. City of Newport Beach* [2012] 211 Cal.App.4th 1209, 1233).

The above discussion provides substantial evidence that, while the combined effects on biological resources resulting from approved/planned development throughout the area could be considered significant, the Project's incremental contribution to the

significant cumulative effect would be reduced with implementation of the mitigation measures required in this EIR.

Based on the above, the Project's incremental contribution to significant cumulative impacts related to biological resources would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

4.4 Cultural and Tribal Cultural Resources

4.4 CULTURAL AND TRIBAL CULTURAL RESOURCES

4.4.1 INTRODUCTION

The Cultural and Tribal Cultural Resources chapter of the EIR addresses known historic and precontact-era cultural resources, including tribal cultural resources, in the site vicinity, as well as the potential for previously unknown resources to occur within the site. Precontact resources are those sites and artifacts of or related to a time period, generally prior to contact with people of European descent. Historic resources include structures, features, artifacts, and sites that date from Euroamerican settlement of the region. The chapter summarizes the existing setting with respect to cultural and tribal cultural resources, identifies thresholds of significance, evaluates potential impacts to such resources, and sets forth mitigation measures, as necessary. The information presented in this chapter is primarily drawn from the Cultural Resources Investigation prepared for the Project by Natural Investigations Company (NIC),[1] the City of Elk Grove General Plan,[2] and the associated General Plan EIR.[3]

4.4.2 EXISTING ENVIRONMENTAL SETTING

According to the City of Elk Grove General Plan EIR, 44 known prehistoric and historic-period archaeological resource sites are located in the City's General Plan planning area. Most of the resources include settlement of foundations, privies/dumps/trash scatters, pestles, glass and bottle fragments, wells, cisterns, midden soil, mounds, lithic scatters, roads, railroad grades, and machinery. In addition, the City of Elk Grove General Plan EIR also notes that 288 built environmental resources in the planning area have either been identified or evaluated for inclusion in the Elk Grove Register of Historic Resources (Elk Grove Register), California Register of Historical Resources (CRHR), or National Register of Historic Places (NRHP). In addition, on October 23, 2024, the City of Elk Grove adopted Resolution NO. 2024-204 to add five additional historic resources to the existing Elk Grove Register.

The following sections provide further details regarding the precontact overview, ethnographic overview, and historic overview of the Project area, as well as a description of any identified cultural or tribal cultural resources associated with the site.

Prehistoric Overview

Beginning in the 1930s, archaeologists began piecing together and refining a three-part classification scheme for cultural change in California's Sacramento Valley, Sacramento–San Joaquin Delta, and San Joaquin Valley. The resulting cultural sequence identified six periods relevant to the Central Valley known as the Paleo-Indian, Lower Archaic, Middle Archaic Upper Archaic and Emergent or Late Prehistoric Periods. Subsequent to the Paleo-Indian and Lower Archaic periods, the cultural framework within the greater study region is further divided into three regionally based "patterns" which are specific to Central Valley prehistory and the greater Project area. The patterns mark changes in distinct artifact types, subsistence orientation, and settlement

[1] Natural Investigations Company. *Cultural Resources Investigations for the 9359 Sheldon Road Residential Development Project, Elk Grove, Sacramento County, California.* March 2025.
[2] City of Elk Grove. *General Plan.* Adopted February 2019. Amended December 13, 2023.
[3] City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* February 2019.

patterns, which began circa 5550 B.C. and lasted until historic contact in the early 1800s. The three patterns were initially identified at three archaeological sites: the Windmiller site near the Cosumnes River in Sacramento County; the West Berkeley site on the east side of the Bay in Alameda County; and the Augustine site in the Sacramento–San Joaquin Delta. In general, the patterns conform to three temporal divisions: Middle Archaic Period (Windmiller Pattern), Upper Archaic Period (Berkeley Pattern), and Late Prehistoric Period (Augustine Pattern).

Little evidence of the Paleo-Indian and Lower Archaic periods in the Central Valley persist due to periodic episodes of alluvial deposition and erosion that buried or removed large segments of the Late Pleistocene landscape throughout the central California lowlands. Studies have estimated that Paleo-Indian and Lower Archaic sites along the lower stretch of the Sacramento River and San Joaquin River drainage systems were buried by Holocene alluvium up to 33 feet thick that was deposited during the last 5,000 to 6,000 years during the formation of the Sacramento-San Joaquin Delta. Existing evidence of the Paleo-Indian Period in the Central Valley area consists primarily of basally thinned, fluted projectile points discovered in Merced County, San Joaquin County, and Kings County. The best representations of the Lower Archaic period are comprised of milling slabs and hand stones discovered in the Sierra Nevada Foothills area. The earliest confirmed archaeological evidence for habitation in Sacramento is from 3,000 to 8,500 years ago at a dig site 10 to 22 feet below the current ground height.

Archeological sites within the Archaic Period/Windmiller pattern are relatively scarce on the valley floor of the Central Valley area due to natural geomorphic processes. Archaeological records in the valley and foothill areas indicate that the humans residing in the vicinity subsided on a range of natural resources using a seasonal foraging strategy. Populations during the Archaic Period may have migrated between higher and lower elevations seasonally, with increased residential stability along the Central Valley River corridors. Tools discovered in the Archaic Period/Windmiller pattern are comprised of animal remains, projectile points, fishing implements, and milling implements. Artifacts include obsidian, shell beads, charm stones, bone tools, baked clay, and impressions of twine basketry. The presence of Olivella shell beads, obsidian tools, and quartz crystals establish the existence of a trade network during the time period. Finally, the recovered Archaic Period/Windmiller Pattern sites have included burial sites in cemetery areas, separated from habitation areas, which were accompanied by a variety of grave goods.

Better understood than any of the preceding periods, the Upper Archaic Period/Berkley Pattern sites are characterized by a 1,000-or-more year shift to more specialized and adaptive human innovations. The Upper Archaic Period is marked by an increase in mortars, pestles, archaeobotanical remains, new types of shell beads, charm stones, bone tools, and ceremonial blades, accompanied by a decrease in slab mills, hand stones, and other less specialized technologies. The observed changes in the recovered artifacts from the Upper Archaic Period are evidence that the populations living in the Project area were relying more on acorns for subsistence, and generally exploited a wide variety of natural resources, including the hunting of animals. Large, mounded villages that developed around 2,700 years ago in the Delta region included accumulations of habitation-related debris such as hearths, house floors, rock-lined ovens, and burial sites. The remains of a variety of aquatic resources inside the mounds developed near salt and fresh water indicate the intensive exploitation of shellfish. Again, the presence of Olivella shell beads, obsidian, and Haliotis ornaments substantiate trade networks between the Central Valley, north coast ranges, and east side of the Sierra Nevada range. Mortuary practices continued to be dominated by interment with some evidence of cremation.

Finally, the most recent and comprehensive record in the Central Valley is associated with an increase in Late Prehistoric Period/Augustine Pattern Sites in the Lower Sacramento Valley/Delta region, characterized by an increased number and diversity of artifacts. Evidence of cultural innovations such as the bow and arrow, elaborate and diverse fishing technology, and elaborate social and ceremonial organization are reflected in the cultural traditions known from the historic period Indigenous American groups. Diverse plant and animal remains recovered from the Late Prehistoric Period indicate the population's reliance on a diverse assortment of subsistence sources. Artifacts recovered from the Late Prehistoric Period/Augustine Pattern sites include hopper mortars, shaped mortars and pestles, bone awls used to produce coiled baskets, bone fishhooks, harpoons, gorge hooks for fishing, and bow and arrow remnants. Small barbed series projectile points can be discovered earlier in the period, while side notched points can be discovered later in the period. Stockton serrated arrow points and Consumnes Brownware are artifacts of note occurring in and near the Sacramento Valley during the Late Prehistoric Period, and the appearance of ceramics is likely a direct innovation to the prior baked clay industry noted in the Windmiller and Berkley Patterns. A few sites containing preserved floors and structural remains substantiate the presence of numerous small and large villages established along the valley floor sloughs, river channels, and foothill streams during this period. Increases in sedentism and population growth led to the development of social stratification during the era, with development of elaborate social and ceremonial organization, resulting in artifacts related to rituals and ceremonies. Such artifacts include flanged tubular pipes, baked clay effigies representing animals and humans, and evidence of mortuary-related burials, cremations and pre-interment burning of offerings at burial pits. Currency in the form of clamshell disk beads also developed in the Late Prehistoric Period, alongside the advancement of exchange networks.

Ethnographic Overview

Prior to the arrival of Euroamericans in the region, California was inhabited by groups of Indigenous Americans speaking more than 100 different languages and occupying a variety of ecological settings. Linguists and ethnographers have subdivided California into four subculture areas, Northwestern, Northeastern, Southern, and Central. The Central area encompasses the Project area and the territory of the Plains Miwok. The Plains Miwok inhabited the lower reaches of the Mokelumne and Cosumnes rivers and the banks of the Sacramento River from Rio Vista to Freeport. The Plains Miwok are members of the Utian Language Family of the Penutian Stock.

The basic social and economic group of Plains Miwok was the family or household unit, with the nuclear and/or extended family forming a corporate unit. The corporate units were combined into distinct triblets as large as 300 to 500 persons, the patrilineage of which were important socio-politically. Each triblet had a chief or headman who exercised control over the triblets comprising their unit, with the triblets taking the name of the head village where the chief resided. The office of chief was hereditary with the chieftainship being property of a single patrilineage of the triblet. The Plains Miwok built a variety of structures including thatched houses and semi-subterranean earth lodge roundhouses. The Plains Miwok also engaged in trading relationships with neighboring groups where obsidian, salt, marine shells, and basketry were imported and exported.

A variety of flaked and ground stone tools were common among Plains Miwok and other tools and weapons were made of obsidian, bone, wood, and other plant and animal materials. Tools and weapons included sinew-backed bows, arrow shafts and points, looped stirring sticks, flat-bladed mush paddles, pipes, hide preparation equipment, cordage for fishing nets and braided twine tumplines, and soaproot brushes used during acorn and buckeye meal flour grinding

activities. Plant resources may have been "managed" by controlled burning for both food and the manufacture of baskets and other useful equipment.

Specialized food processing and cooking techniques used by Plains Miwok included grinding and leaching of acorn, buckeyes, pine nuts, seeds and other plant foods, and meat. The aforementioned foods were routinely processed using bedrock mortars and pestles, soaproot brushes, and fist-sized heated stones. Fishing formed a large component of Plains Miwok subsistence activity requiring the use of fishing-related implements and facilities such as spears, cordage lines, bone fishhooks, harpoons with detachable points, dams for stream diversion, basketry, weirs, and an array of fish traps. Tules, lashed logs, and bark rafts were used to acquire resources and facilitate travel in the water.

The Indigenous American population in the Sacramento Valley first came into contact with Spanish explorers in the late 1700s as the Franciscan missions sought religious converts. Plains Miwok religious converts were sent to Mission San José in the early 1800s. Many labored in large ranchos awarded during the Mexican period. Soon after the discovery of gold in 1848 and the ensuing Gold Rush, the Miwok population declined from nearly 20,000 in 1805 to approximately 3,000 by 1856. Surviving Miwok labored for fast growing industries such as mining, ranching, farming, and lumber industries.

During the first half of the 1900s, the federal government acquired lands and established reservations, or *rancherias*, for the Eastern Miwok. U.S. Bureau of Indian Affairs terminated relations with most of the rancherias for the Eastern Miwok between 1934 and 1972 but beginning in 1984 status was restored to some of the rancherias and some groups in the area are still considered federally recognized tribes.

Historic Overview

The City of Elk Grove and the surrounding area, including the site, were historically part of the Sacramento River Delta, named by Spanish explorers in the late eighteenth century. The Sacramento Valley remained at the fringes of the settlement of California well after Mexico's independence from Spain in the 1820's. However, in 1826, an American fur trapper named Jedediah Strong Smith, and a small number of associates, made the first overland expedition into California returning in 1827 to explore the San Joaquin and Sacramento Valleys. John A. Sutter, a German Swiss immigrant, came to California by way of the overland route with the American Fur Company in 1836 as part of a group on their way to Fort Vancouver. After the trip, John A. Sutter would return to California to settle in the Sacramento Valley.

Upon John A. Sutter's return to the Sacramento Valley in 1839, he made a petition to Governor Alvarado of Mexico for a land grant to settle the Sacramento Valley. In order to establish a buffer between Mexican settlements and Indigenous American groups, who were rustling cattle from the Mexican settlements, Governor Alvarado granted Sutter 11 leagues of land in the current Sacramento County. With the granted land, Sutter established New Helvetia, also known as Sutter's Fort, in 1841. Sutter's Fort acted as a safe-haven and trading post for Euromericans in the area and was utilized as a rest stop for immigrants entering California over the overland trail in the 1840s. In addition to John A. Sutter, the Mexican government granted several other ranchos to immigrants in the Sacramento Valley during the 1830s and 1840s such as Rancho Rio Ojotska, Rancho del Paso, Rancho Rio de los Americanos, and Rancho Omochumnes. In 1848 gold would be discovered at John A. Sutter's sawmill in Coloma, California, beginning the California Gold Rush, which would dramatically affect California's state history. The 1849 Gold Rush brought

immigrants from all over the world to California and the Sacramento Valley. After the end of the Mexican-American war in 1846, California became possession of the United States. The City of Sacramento was incorporated in 1850 and the capital was moved to Sacramento in 1854. The capitol building was started in 1860 and completed in 1874.

Like many places in California, population and construction experienced a boom in Sacramento during the Gold Rush era. Outside of Sacramento, mining camps sprung up along the American and Cosumnes rivers. Most of these camps disappeared at the end of the Gold Rush and were replaced by other businesses including agriculture and timber harvesting, which were familiar and former professions of many miners. Cattle ranching, timber harvesting, and agriculture increased during the 1850s to 1860s in California in response to the expanding population. Livestock previously used to produce hides, tallow, and wool were now sold for slaughter to provide meat. Timber harvesting provided an alternate occupation for discouraged miners and eventually developed into a major industry in California, alongside agriculture which was needed to supply the ever-expanding population with produce and dairy products. The primary cash crops produced in California between 1867 and 1885 were wheat and other cereal grains. Other crops and products produced at the time included wool, raisins, hops, sugar beets, and wine. As fruit orchards began to contribute to California's agricultural industry, issues related to spoilage prevented this good from being shipped greater distances. The establishment of fruit canneries in the 1880s in combination with advances to refrigeration and cars allowed California agriculture to transition from a wheat industry to a fruit-based industry between 1883 and 1900.

As a result of the above economic factors, roads and railroads were established in the 1850s to 1870s to facilitate transportation. An outgrowth of the transportation system required the establishment of towns along road and railroad alignments such as Folsom, Galt, and Elk Grove. Elk Grove was originally established along Upper Stockton Road, which linked Sacramento and Stockton. The construction of the Central Pacific railroad line, however, bypassed Elk Grove and the town was subsequently reestablished along the railroad line by J. Everson in 1876. Everson also founded the Elk Grove Building Company, which was a group of businessmen who wanted to establish a business center along the new Central Pacific railroad line. They built two hotels, a flourmill, a general store, a hardware store, a meat market, furniture manufactory, a carriage and wagon manufactory, dressmaker and milliner shops, and a grain warehouse over the course of ten years in the Elk Grove area.

Historic-period site indicators generally include the following: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains, such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

Site History and Current Uses

The site is located within the Sacramento Valley, which is part of the Great Valley geomorphic province. The Project area contains several river systems, including the Sacramento, American, and Cosumnes rivers, and Laguna Creek flows through the site. Historically, the Project area consisted of riparian scrub/forest along drainages, grasslands and oak woodlands in valley foothill areas, as well as marshy wetland habitats that were inhabited by a wide variety of large and small mammals, fish, and birds. The mosaic of ecological communities provided a very productive environment that was used by Indigenous American groups who occupied the region. However, over the past 150 years, the environment within the Central Valley has been greatly altered for agricultural, commercial, and residential development. The area currently consists of a mix of cropland and urban environments.

A review of 19th and 20th-century maps and aerial photos show several buildings and structures within the site, with the earliest evidence being United States Geological Service (USGS) topographic maps between the period of 1947 and 1957. In addition, two transmission lines appear on the site on a 1952 USGS topographic map and 1966 map, respectively. The transmission lines are currently owned by Pacific Gas and Electric (PG&E) and Western Power Administration (Western).

The approximately 115.9-acre site is currently developed with a single-residential unit residence, and accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries centrally run from the northern and eastern boundaries of the site to the southern boundary of the site. The site and the surrounding areas have a history of use for agricultural purposes. However, the surrounding area is currently being developed for rural residential and rural estate residential uses. As such, residential properties exist in the site vicinity.

Known Cultural Resources

The site is not listed on the Elk Grove Register or included in Elk Grove Resolution NO. 2024-204. In addition, archival research was carried out as part of the Cultural Resources Investigation conducted for the Project, including a review of the available historic documents and records search. The records search of the California Historical Resources Information System (CHRIS) by North Central Information Center (NCIC) was completed for the site on February 23, 2023 (NCIC File No. SAC-23-39). Additionally, NIC conducted a field survey of the site on February 27 and 28, 2023.

The records search determined that the site was included in four previous cultural resources studies conducted in 1974, 1979, and 2002, and that 18 studies were conducted within 0.5-mile of the site between 1974 and 2013. Based on the findings of the 22 previously conducted studies, two previously recorded cultural resources have been documented within the site, P-34-001102 and P-34-001104, as described below.

P-34-001102– 230-KV Hurley-Tracy Transmission Line No. 1

P-34-001102 was originally recorded by PAR Environmental Associates in 2001 and consists of a 55-mile-long segment of the 230-kilovolt (Kv) Hurley-Tracy Transmission Line No.1. According to NIC, the transmission line was originally constructed by the Bureau of Reclamation in 1952 and is currently maintained by Western. The section of transmission line contained on the site consists of two steel-lattice waist towers on concrete piers within a 125-foot-wide utility easement.

P-34-001102 only represents a small part of a much larger electric distribution system that extends well beyond the current Project boundaries. In addition, the transmission system includes a variety of features (e.g., switchyards and substations) not identified within the site and additional towers that may differ in design from the towers identified within the site.

P-34-001104 – Isolated Precontact Pestle

P-34-001104 is an isolated precontact pestle, which was originally recorded by PAR Environmental Associates in 2002. The metasedimentary cobble pestle is 17.2 centimeters (cm) long, 7.6 cm wide, and 5.8 cm thick.

Previously Unrecorded Cultural Resources

During the field surveys of the site, three previously unrecorded cultural resources were identified within the site. The newly recorded resources include a historic dairy ranch complex (NIC-2023-Sheldon-01), a section of PG&E 230-Kv transmission line (NIC-2023-Sheldon-02), and a section of Western 230-Kv transmission line (NIC-2023-Sheldon-03). Additional prehistoric or historic-era archaeological, ethnographic, or historic-era built environment resources were not identified or recorded during the field surveys. The three previously unrecorded cultural resources documented within the site as a result of the field surveys are discussed in further detail below.

NIC-2023-Sheldon-01 – Historic Dairy Ranch Complex

The historic dairy ranch complex (NIC-2023-Sheldon-01) consists of a single-unit residential residence (see Figure 4.4-1 and Figure 4.4-2), remnants of three barns, a corral, barbwire fence lines, a modern shed and garage, and several concrete pads. According to NIC, the residence and two of the barns date between 1947 and 1957. Historic aerials and topographic maps of the site indicate that the third barn dates between 1970 and 1977. The on-site residence is constructed in the minimal traditional style, and consists of a single-story building with a raised concrete foundation, covered front porch and covered back patio, stucco siding, vinyl-framed windows, asphalt shingled-roof, and a brick chimney. According to the Cultural Resources Investigation, the residence appeared to have undergone recent remodeling and was currently vacant. The three barns have been demolished and are currently represented by concrete foundations. The fence line consists of modern metal posts and remnants of original wooden fence posts with sections that are missing or have fallen. NIC noted that the nature of the structures formerly associated with the concrete pads located across the site is unknown.

NIC-2023-Sheldon-02 – Section of PG&E 230-Kv Transmission Line

NIC-2023-Sheldon-02 consists of a 19-mile-long section of a PG&E 230-Kv transmission line constructed between 1957 and 1964. The section of the transmission line contained on the site consists of three steel lattice towers on concrete piers in a 125-foot-wide utility easement.

NIC-2023-Sheldon-02 only represents a small part of a much larger electric distribution system that extends well beyond the current Project boundaries. In addition, the transmission system includes a variety of features (e.g., switchyards and substations) not identified within the site and additional towers that may differ in design from the towers identified within the site.

NIC-2023-Sheldon-03 – Section of Western 230-Kv Transmission Line

NIC-2023-Sheldon-03 consists of a 19-mile-long section of a Western 230-Kv transmission line constructed between 1957 and 1967. The section of the transmission line contained on the site consists of two monopoles on concrete piers within a 125-foot-wide utility easement.

NIC-2023-Sheldon-03 only represents a small part of a much larger electric distribution system that extends well beyond the current Project boundaries. In addition, the transmission system includes a variety of features (e.g., switchyards and substations) not identified within the site and additional towers that may differ in design from the towers identified within the site.

Tribal Cultural Resources

NIC contacted the Native American Heritage Commission (NAHC) requesting a search of the Sacred Lands File (SLF) for Native American cultural resources within or near the site. The NAHC returned the results on March 16, 2023, and indicated that the SLF was negative for known sensitive Native American cultural resources within the site.

Figure 4.4-1
Overview of the Residence on the Site



Figure 4.4-2
Overview of Rear of Residence



Pursuant to Assembly Bill (AB) 52 and Senate Bill (SB) 18, invitations to consult were sent to tribes who requested notification of proposed projects within the geographic area of the site on October 10, 2023, and October 12, 2023, respectively. Further details on the tribal notification letters are provided in the Method of Analysis section of this chapter.

4.4.3 REGULATORY CONTEXT

Federal, State, and local governments have developed laws and regulations designed to protect significant cultural and tribal cultural resources that may be affected by actions that they undertake or regulate. The following section contains a summary of basic federal and State laws governing preservation of historic, archaeological, and tribal cultural resources of national, State, and local significance.

Federal Regulations

The following are the federal environmental laws and policies relevant to cultural and tribal cultural resources.

Section 106 for the National Historical Preservation Act of 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historic Preservation Act (NHPA) of 1966. Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in Title 36 of the Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites, which are determined eligible for listing on the NRHP. The criteria for determining NRHP eligibility are found in 36 CFR Part 60. Amendments to the NHPA (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or uses federal funding.

National Register of Historic Places

The NRHP is the nation's master inventory of known historic resources. The NRHP includes listings of resources, including buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, State, or local level. Resources over 50 years of age can be listed on the NRHP. However, properties under 50 years of age that are of exceptional significance or are contributors to a district can also be included on the NRHP. Four criteria are used to determine if a potential resource may be considered significant and eligible for listing on the NRHP. The criteria include resources that:

A. Are associated with events that have made a significant contribution to the broad patterns of history; or
B. Are associated with the lives of persons significant in our past; or
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. Have yielded or may likely yield information important in prehistory or history.

A resource can be individually eligible for listing on the NRHP under any of the above four criteria, or can be listed as contributing to a group of resources that are listed on the NRHP. A resource can be considered significant in American history, architecture, archaeology, engineering, or culture. Once a resource has been identified as significant and potentially eligible for the NRHP, the resource's historic integrity must be evaluated. Integrity is a function of seven factors: location, design, setting, materials, workmanship, feeling, and association. The factors closely relate to the resource's significance and must be intact for NRHP eligibility.

Historical buildings, structures, and objects are usually eligible under Criteria A, B, and C based on historical research and architectural or engineering characteristics. Archaeological sites are usually eligible under Criterion D, the potential to yield information important in prehistory or history. An archaeological test program may be necessary to determine whether the site has the potential to yield important data. The lead federal agency makes the determination of eligibility based on the results of the test program and seeks concurrence from the State Historic Preservation Officer (SHPO).

Effects to NRHP-eligible resources (historic properties) are adverse if the Project may alter, directly or indirectly, any of the characteristics of an historic property that qualify the property for inclusion on the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

State Regulations

The following are the State environmental laws and policies relevant to cultural and tribal cultural resources.

California Environmental Quality Act and California Register of Historical Places

Applicable State historic preservation regulations to the Project include the statutes and guidelines contained in CEQA (Public Resources Code [PRC] Sections 21083.2 and 21084.1 and Sections 15064.5 and 15126.4[b] of the CEQA Guidelines). CEQA requires lead agencies to consider the potential effects of a project on historic resources and unique archaeological resources. A "historic resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant (PRC Section 5020.1). Under Section 15064.5 of the CEQA Guidelines, a resource is considered "historically significant" if one or more of the following CRHR criteria have been met:

1) The resource is associated with events that have made a significant contribution to the broad patterns of California history;
2) The resource is associated with the lives of important persons from our past;
3) The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
4) The resource has yielded, or may be likely to yield, important information in prehistory or history.

In addition, the resource must retain integrity. Cultural resources determined eligible for the NRHP by a federal agency are automatically eligible for the CRHR.

CEQA requires preparation of an EIR if a proposed project would cause a "substantial adverse change" in the significance of a historical resource. A "substantial adverse change" would occur

if a proposed project would result in physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 15064.5[b][1]).

In addition to historically significant resources, which can include archeological resources that meet the criteria listed above, CEQA also requires consideration of "unique archaeological resources." If a site meets the definition of a unique archaeological resource, the site must be treated in accordance with the provisions of PRC Section 21083.2. Under PRC Section 20183.2(g), an archaeological resource is considered "unique" if it:

1) Is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory;
2) Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
3) Has a special kind or particular quality such as oldest, best example, largest, or last surviving example of its kind;
4) Is at least 100 years old and possesses substantial stratigraphic integrity; or
5) Involves important research questions that can be answered only with archaeological methods.

CEQA also includes specific guidance regarding the accidental discovery of human remains. Specifically, CEQA Guidelines Section 15064.5(e) requires that if human remains are uncovered, excavation activities must be stopped and the county coroner be contacted. If the county coroner determines that the remains are Native American, the coroner must contact the NAHC within 24 hours. The NAHC identifies the most likely descendant, and that individual or individuals can make recommendations for treatment of the human remains under the procedures set forth in CEQA Guidelines Section 15064.5.

The SHPO maintains the CRHR. Properties that are listed on the NRHP are automatically listed on the CRHR, along with State Landmarks and Points of Interest. The CRHR can also include properties designated under local ordinances or identified through local historical resource surveys.

Assembly Bill 52

AB 52 adds tribal cultural resources to the categories of cultural resources in CEQA, which had formerly been limited to historic, archaeological, and paleontological resources. "Tribal cultural resources," pursuant to PRC Section 21074(a), are defined as either:

(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.

Under AB 52, a project that may cause a substantial adverse change in the significance of a tribal cultural resource is defined as a project that may have a significant effect on the environment. Where a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact. AB 52 (PRC Section 21080.3.1) requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. If the tribe(s) requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe(s). Consultation may include discussing the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe(s).

Senate Bill 18

Signed in September 2004, SB 18 amended Section 815.3 of the Civil Code, amended Sections 65040.2, 65092, 65351, 65352, and 65560 of the PRC, and added to Sections 65352.3, 65352.4, and 65562.5 of the Government Code, relating to traditional tribal cultural places. SB 18 requires local (city and county) governments to consult with California Native American tribes, when amending or adopting a general plan or specific plan, or designating land as open space, in order to aid in the protection of traditional tribal cultural places (cultural places). The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code Section 65300 et seq.) and specific plans (defined in Government Code Section 65450 et seq.). Because the Project requires City approval of a General Plan Amendment, the Project is subject to SB 18 consultation requirements.

Local Regulations

The following are the local environmental laws and policies relevant to cultural and tribal cultural resources.

City of Elk Grove General Plan

The relevant goals and policies from the City of Elk Grove General Plan related to cultural and tribal cultural resources are presented below.

Goal HR-1 Preserved and Enhanced Historic 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.

Goal HR-2 Protected Cultural and Tribal Resources

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.

Goal HR-3 A Celebrated Heritage and Culture

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

The Elk Grove Municipal Code (EGMC) includes ordinances associated with cultural and tribal cultural resources. The applicable ordinances are discussed in further detail below.

Chapter 7.00: Historic Preservation

The purpose of EGMC Chapter 7.00, Historic Preservation, is 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. Pursuant to EGMC Section 7.00.020, the provisions of Chapter 7.00 are applicable to designated historical resources, tribal cultural resources, and resources potentially eligible for historic designation, including resources affected by any Project proposed by the City of Elk Grove or subject to review by the City of Elk Grove.

4.4.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the potential impacts of the Project related to cultural and tribal cultural resources. In addition, a discussion of the impacts associated with the Project, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact related to cultural or tribal cultural resources would occur if the Project would result in any of the following:

- Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Disturb any human remains, including those interred outside of dedicated cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource as 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, and that is:

(a) Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k); or
(b) 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Method of Analysis

The impact analysis contained in this chapter is primarily based on the Cultural Resources Investigation prepared for the Project by NIC. The Cultural Resources Investigation included archival research, a field survey, and consultation with the NAHC. The methodology of the Cultural Resources Investigation is discussed further below, as well as a discussion of the tribal consultation efforts conducted by the City, pursuant to AB 52 and SB 18.

Archival Research

A cultural resources records search for the site was completed at the NCIC on February 23, 2023. The records search was conducted to determine the extent of previous surveys within 0.5-mile radius of the site, and whether previously documented precontact or historic archaeological sites, architectural resources, or traditional cultural properties exist within the site. As previously discussed, according to records from the NCIC, the site was subjected to three previous cultural resources studies conducted in 1974, 1979, and 2002. A total of 18 additional investigations have been conducted within 0.5-mile of the site (see Table 4.5-1).

The archival searches of archaeological and historical records, national and State databases, and historic maps included a review of the NRHP, CRHR, Historic Property Data File for Sacramento County, Archeological Determinations of Eligibility, Built Environmental Resources Directory, California Inventory of Historical Resources, California Historical Landmarks, California Points of Historical Interest, and Historical General Land Office (GLO) and land plat maps.

In addition, as the Office of Historic Preservation (OHP) has determined that structures in excess of 45 years of age could be important historical resources and former building and structure locations could be important archaeological sites, archival research also included an examination of 19th and 20th century maps and aerial photographs to gain insight into the nature and extent of historical development in the general project vicinity and within the site.

Finally, an assessment of geological and historical conditions to predict the Project's sensitivity for buried archaeological sites was conducted using a references from *California Prehistory: Colonization, Culture, and Complexity* by Rosenthal et al and *Soil Taxonomy: A Basic System of Soil Classification for Making and Interpreting Soil Surveys, Second Edition* by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS).

Table 4.4-1
Previous Studies Within and Near the Site

Author	Date	S#
Previous Studies Covering the Site		
Johnson	1974	000088
Peak	1979	000418
PAR Environmental Services, Inc.	2002	005929
Nelson and Carpenter	2002	009188
Previous Studies within 0.5-Mile of Site		
Johnson	1972	000127
Peak	1979	000420
Laurie Warner	1993	001874
Brian Hatoff, Barb Voss, Sharon Waechter, Stephen Wee, and Vance Bente	1995	006154
Melinda Peak and Robert Gerry	2000	002518
Peter Jensen	2004	005914
Peak & Associates, Inc.	2003	005917
Pacific Municipal Consultants	2003	005921
Pacific Municipal Consultants	2004	005942
Sean Jensen	2006	006964
Brian Hatoff	2005	006993
Pacific Municipal Consultants	2005	008019
Carrie Willis	2012	011151
Melinda Peak, Micheel Lawson, and Robert Gerry	2013	014093
Melinda Peak and Michael Lawson	2013	012128
Nancy E. Sikes and Molly Valasik	2014	013037
Molly Valasik and Nanay Sikes	2015	013038
Carrie Willis	2021	013566

Source: Natural Investigations Company, March 2025.

Field Survey

An intensive field survey of the site was completed on February 27 and 28, 2023. Surface examination consisted of transects spaced 15 meters (49.2 feet) apart or less. Surface visibility across the site was generally poor (25 to 50 percent) due to dense grass cover. The pedestrian survey inspected the site for cultural material (e.g., flaked stone tools, tool- making debris, stone milling tools, and fire-affected rock), soil discoloration that might indicate the presence of midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes and foundations), or historic-era debris (e.g., metal, glass, and ceramics). A digital camera was used to take photographs of the site, a Munsell® Soil Color Chart used to record soil color, and a handheld BE-3300-GPS global positioning system (GPS) unit with sub-meter accuracy used to record locational data.

Native American Heritage Commission Consultation

NIC contacted the NAHC to request a search of the SLF to determine whether known tribal cultural resources are located within or near the site. The NAHC returned the results on March 16, 2023, and March 29, 2023, respectively, which were both negative, indicating that known tribal cultural resources are not present within the site.

Assembly Bill 52 and Senate Bill 18 Tribal Consultation

In compliance with AB 52 (PRC Section 21080.3.1) and SB 18, Project notification letters were distributed by the City of Elk Grove, as the lead agency for the Project, on October 10, 2023 and October 12, 2023, respectively. Both the AB 52 and SB 18 letters were sent to representatives of the Buena Vista Rancheria of Me-Wuk Indians, Chicken Ranch Rancheria of Me-Wuk Indians, Ione Band of Miwok Indians, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Tsi Akim Maidu, United Auburn Indian Community of the Auburn Rancheria, and Wilton Rancheria. On November 3, 2023, the Wilton Rancheria responded to the notification letter, providing a copy of the Wilton Rancheria Inadvertent Discovery Treatment Plan for projects in Elk Grove and confirming that a representative of Wilton Rancheria would conduct a Tribal Survey of the site subsequent to planning approval. Responses from other notified tribes were not received.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Project in comparison with the standards of significance identified above.

4.4-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Historical resources are features that are associated with the lives of historically important persons and/or historically significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics. Cultural resources determined eligible for the NRHP by a federal agency are automatically eligible for the CRHR.

As discussed above, the site contains previously documented 230-Kv Hurley-Tracy Transmission Line (P-34-001102), as well as three newly recorded resources including a historic dairy ranch complex (NIC-2023-Sheldon-01), a section of PG&E 230-Kv transmission line (NIC-2023-Sheldon-02), and a section of Western 230-Kv transmission line (NIC-2023-Sheldon-03), which are discussed in further detail below.

Transmission Lines

The previously documented 230-Kv Hurley-Tracy Transmission Line segment (P-34-001102) consists of two steel-lattice waist towers on concrete piers within a 125-foot-wide utility easement. Similarly, the newly recorded section of PG&E 230-Kv transmission line (NIC-2023-Sheldon-02) is comprised of three steel lattice towers on concrete piers in a 125-foot-wide utility easement and the newly recorded section of Western 230-Kv Transmission Line (NIC-2023-Sheldon-03), is comprised of two monopoles on concrete piers within a 125-foot-wide utility easement.

As discussed above, P-34-001102, NIC-2023-Sheldon-02, and NIC-2023-Sheldon-03 only represent a small part of much larger electric distribution system that extends well

beyond the current Project boundaries. In addition, the transmission systems include a variety of features (e.g., switchyards and substations) not identified within the site, including additional towers that may differ in design from the towers identified on the site. Due to the limited information regarding the transmission lines and their associated features (e.g., towers and substations) the potential eligibility of the towers and very short segments of transmission line contained within the site for inclusion on the CRHR and NRHP was not determined as part of the current Project. Regardless of the potential CRHR and/or NRHP eligibility of the towers and transmission lines on the site, the Project would be designed to avoid the towers and would not impact the towers or transmission lines or any elements of the towers and lines that could contribute to their eligibility for the CRHR and/or NRHP as individual electric distribution systems or a contributing element to a system.

Historic Dairy Ranch Complex

The newly recorded historic dairy ranch complex (NIC-2023-Sheldon-01) consists of a single-unit residence, remnants of four accessory structures, a corral, barbwire fence lines, and several concrete pads.

According to the Cultural Resources Investigation, the date of construction of NIC-2023-Sheldon-01 is between 1947 and 1977, which is not a time period that is considered significant in terms of national, regional, or California history. Consequently, the site does not appear to meet Criterion A for inclusion on the NRHP or CRHR. In addition, the builders/owners of NIC-2023-Sheldon-01 are unknown. Consequently, the site does not appear to meet Criterion B for inclusion on the NRHP or CRHR.

With regard to Criterion C, NIC-2023-Sheldon-01 does not exhibit any unique characteristics of construction or design. The site primarily consists of foundations and fence lines with the residence being the only remaining standing feature. According to the Cultural Resources Investigation, the residence represents the Minimal Traditional style, but does not exhibit any unique characteristics of construction or design. Consequently, the site does not appear to meet Criterion C for inclusion on the NRHP or CRHR.

Finally, NIC-2023-Sheldon-01 does not possess the ability to yield any information important in national or regional history. The site does not represent any unique features of design or construction and is not associated with a significant period in history or historically important individual(s). Consequently, the site does not appear to meet Criterion D for inclusion on the NRHP or CRHR.

In addition, the single-unit residence is the only feature of NIC-2023-Sheldon-01 that retains integrity and is in good condition. The other built elements in the complex, including the remnants of three barns, a corral, barbwire fence lines, and several concrete pads were determined to be in poor condition and lacking integrity of design, materials, workmanship, feeling, setting, and association. Therefore, NIC-2023-Sheldon-01 does not appear to meet the criteria for consideration as an historic property, historical resource, or unique archaeological resource pursuant to Section 106 of the NHPA or CEQA and is not eligible for the NRHP or CRHR. It should be noted that the Historic Dairy Ranch Complex is not included on the Elk Grove Register.

Off-Site Improvements

As discussed in Chapter 3, Project Description, of this EIR, the Project would include a number of off-site roadway and utility improvements including the construction of new water and sewer lines within the existing project area roadways, and improvements to the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabouts. All off-site utility improvements would occur in existing roadway right-of-way (ROW) or other previously disturbed areas, and as such, construction of the off-site utility line improvements would not result in a substantial adverse change in the significance of a historical resource. However, as discussed in Chapter 3, Project Description, of this EIR, the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabout improvements would include widening of the roadways at the intersections, and the extent of disturbance which could result from reconfiguration of the roundabouts is not known, as engineering designs have not yet been prepared. Because the CHRIS records search prepared as part of the Cultural Resources Investigation identified four previously recorded cultural resources within a 0.5-mile search radius of the site, reconfiguration of the Road/Waterman Road and the Sheldon Road/Bradshaw Road roundabouts could potentially impact known historical resources.

Conclusion

Based on the above, on-site development would not result in any impacts to historic resources. However, because the extent of disturbance associated with the off-site improvements to the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabout is not currently known, such improvements could cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.4-1 *Prior to construction of any off-site improvements to the Road/Waterman Road and/or Sheldon Road/Bradshaw Road roundabout(s), a cultural resources study shall be conducted to determine if any cultural resource sites are present. The study shall be conducted by a qualified archaeologist that meets the Secretary of the Interior's Standards for Archaeology.*

If cultural resource site indicators are found during the study recommended above and would be impacted by the proposed improvements, the preferred treatment of the resource is protection and preservation. Protection and preservation shall be achieved in one of two ways: direct avoidance (i.e., not developing within the boundaries of the cultural resource site); or by protecting intact archaeological deposits through the placement of sufficient fill over the deposit during and after construction.

If protection and preservation are not possible, then a subsurface testing program shall be conducted to determine if the cultural resource

site is eligible for inclusion on the California Register or the Elk Grove Register. The subsurface testing program shall be overseen by an archaeologist who meets the Secretary of the Interior's Standards and shall be outlined in a Subsurface Testing Program Plan for Cultural Resources. The plan shall include the following: a research design appropriate for the cultural resource site type; a discussion and rationale of the investigation's field and laboratory methods; and an identification of the planned treatment and disposition of any recovered cultural materials, including the steps that shall be followed in the event of discovery of human remains. The identified steps shall be consistent with Health and Safety Code Section 7050.5. Following the completion of the subsurface testing program, a report shall be prepared that documents the methods of investigation, the types of analyses conducted, and a determination of the cultural resource site's eligibility for inclusion on the California Register of Historic Resources (CRHR). The report shall include completed appropriate Department of Parks and Recreation (DPR) 523 forms for the cultural resource site.

If the testing program finds that a cultural resource site eligible for listing on the CRHR would be impacted, and protection and preservation is not possible, then data recovery of the impacted locations shall be necessary. Data recovery shall be performed by a qualified archaeologist that meets the Secretary of the Interior's Standards using appropriate archaeological techniques. Data recovery shall include processing and analysis of recovered cultural materials using appropriate archaeological methods, as well as the preparation of the recovered materials for permanent disposition pursuant to the requirements of the Archaeological Resources Treatment Plan. Monitoring may also be recommended by the archaeologist, but the decision to recommend monitoring as a mitigation measure shall be dependent upon the findings of the testing program.

Proof of compliance with the aforementioned standards shall be submitted to the City of Elk Grove Community Development Department for review and approval.

4.4-2 Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed above, a previously documented isolated precontact pestle (P-34-001104) is located within the site. However, according to the Cultural Resources Investigation, the precontact pestle is an isolated artifact, which, although can contribute information about past cultures, does not provide enough context to warrant classification as a full archaeological site or association with a larger site or significant activity area. Therefore, the precontact pestle is not eligible for inclusion on the NRHP

or CRHR. In addition, the field survey conducted as part of the Cultural Resources Investigation did not detect unknown archaeological resources or human remains. Furthermore, previous cultural resource studies that have encompassed the site did not identify archaeological resources or human remains within the site or vicinity, nor is the site included on the Elk Grove Register.

Based on the dates of the geologic formations and soils and the lack of precontact sites in the area that were identified in buried contexts, NIC does not anticipate that implementation of the Project would uncover any buried deposits of cultural resources. Nonetheless, the potential for encountering previously unidentified buried archaeological resources or human remains within the site cannot be entirely ruled out, as the Project would include ground-disturbing activities, such as excavation associated with construction of the proposed structures, as well as new building foundations and trenching for new utility lines. According to the Cultural Resources Investigation, due to the presence of Riverbank Formation, Redding loam, San Joaquin loam, and Hicksville loam on the site the on-site soils have a moderate sensitivity for the presence of buried deposits of cultural resources. In addition, Laguna Creek tributaries generally run from the northern boundary of the site to the southern boundary of the site. Areas near aquatic features, such as rivers, creeks, lakes, and wetlands, are often sensitive for cultural resources, especially in areas associated with indigenous communities. Given the variable sensitivity of portions of the site, unknown archaeological resources could exist beneath the ground surface. In the event that on-site ground-disturbing activities encounter such resources during development of the Project, a substantial adverse effect could occur.

In addition, while all off-site utility improvements would occur in existing roadway ROW or other previously disturbed areas, and therefore, would not be anticipated to result in any impacts to archaeological resources or human remains, the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabout improvements would include widening of the roadways at the intersections, which could result in the disturbance of unknown archaeological resources or human remains if widening occurs within previously undisturbed areas.

Based on the above, the Project could cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries, and a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure is applicable to the Project and would reduce the above potential impact to a *less-than-significant* level.

4.4-2(a) If potential cultural resources, tribal cultural resources, or archaeological artifacts are discovered during grading or construction activities within the site, work shall halt immediately within 100 feet of the discovery based on the apparent distribution of the resources, the City of Elk Grove Community Development 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. In addition, a Native American Representative from the federally recognized Wilton Rancheria will assess the significance of the find and make recommendations for further evaluation and treatment if necessary. Examples of potential cultural materials include but are not limited to midden soils, artifacts, chipped or worked stone, baked clay, shell, or bone.

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, the applicant, and a representative of Wilton Rancheria shall consult and agree to implement all measures the City deems feasible. Culturally appropriate treatment that preserves or restores the cultural qualities and integrity of a Tribal Cultural Resource may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, construction monitoring of any further activities by a tribal representative, and or returning the objects to a location within the project area where they will not be subject to future impacts. Wilton Rancheria does not consider curation of tribal cultural resources to be appropriate or respectful and requests that materials not be permanently curated, unless specifically requested by the Tribe. Additional 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.

4.4-2(b) *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 of Elk Grove Community Development Department 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.*

4.4-2(c) *Prior to the start of any ground disturbing activities, a qualified archaeologist meeting the United States Secretary of Interior guidelines for*

professional archaeologists shall be retained to develop a construction worker awareness brochure. This brochure shall be distributed to all construction personnel and supervisors who will have the potential to encounter cultural resources. Proof of compliance shall be submitted to the City of Elk Grove Community Development Department. The topics to be addressed in the Worker Environmental Awareness Program will include, at a minimum:

- *Types of cultural resources expected in the project area;*
- *What to do if a worker encounters a possible resource;*
- *What to do if a worker encounters bones or possible bones; and*
- *Penalties for removing or intentionally disturbing cultural resources, such as those identified in the Archeological Resources Protection Act.*

4.4-2(d) In the event of the accidental discovery or recognition of any human remains, the County Coroner and the Native American Heritage Commission shall be contacted immediately, and the City of Elk Grove Community Development Department shall be notified, and further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur and the County Coroner shall be notified to determine if an investigation into the cause of death is required. If the coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. A Native American Representative from the federally recognized Wilton Rancheria shall also be notified and make recommendations for further treatment if necessary. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 24 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. After review of the find and consultation with the most likely descendant, the authority to proceed may be accompanied by the addition of development requirements which provide for protection and preservation of the site and/or additional measures necessary to address the sensitive and unique nature of the site. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof

of compliance to the City of Elk Grove Community Development Department. Work on the site cannot commence until after the human remains are removed from the area or, if reburial is determined to be the appropriate course of action, reburied at a location on the property not subject to further disturbance. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the City of Elk Grove Community Development Department. All treatment recommendations made by the tribe and other cultural resources specialists shall be documented in the confidential portion of the project record.

4.4-2(e) Implement Mitigation Measure 4.4-1.

4.4-3 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed above, a previously documented isolated precontact pestle (P-34-001104) is located within the site. However, as the precontact pestle is an isolated artifact, the precontact pestle is not eligible for inclusion on the NRHP or CRHR or the City's local register.

The search of the SLF conducted by the NAHC for Native American cultural resources within the site returned negative results, indicating known tribal cultural resources are not within the site or the immediate vicinity. In addition, as previously discussed, the City sent Project notification letters to tribes who requested notification within the geographic area of the City, on October 10, 2023, pursuant to AB 52, as well as on October 12, 2023, pursuant to SB 18. On November 3, 2023 the Wilton Rancheria responded to the notification letter, providing a copy of the Wilton Rancheria Inadvertent Discovery Treatment Plan for projects in Elk Grove and confirming that a representative of Wilton Rancheria would conduct a Tribal Survey of the site subsequent to planning approval. The foregoing recommendations are included as part of the mitigation measures set forth in this EIR. The City did not receive responses from other contacted tribes.

In addition, while all off-site utility improvements would occur in existing roadway ROW or other previously disturbed areas, and therefore, would not be anticipated to result in any impacts to tribal cultural resources, the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabout improvements would include widening of the roadways at the intersections, which could result in the disturbance of unknown tribal cultural resources if widening occurs within previously undisturbed areas.

Based on the findings of the Cultural Resources Investigation, as well as the results of the NAHC SLF search, known tribal cultural resources do not occur within the site or in its vicinity. Nevertheless, while background research and the field surveys did not indicate the presence of known tribal cultural resources, subsurface Native American resources could potentially be identified on the site during construction activities

associated with the Project. In the event that tribal cultural resources are discovered during such activities, without inclusion of appropriate measures for unanticipated discoveries of potential, subsurface tribal cultural resources, the Project could cause a substantial adverse change in the significance of a tribal cultural resource, as defined in PRC Section 21074. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure is applicable to the Project and would reduce the above potential impact to a *less-than-significant* level.

4.4-3(a) *Implement Mitigation Measures 4.4-2(a) through 4.4-2(e).*

4.4-3(b) *Prior to approval of any construction plans for the Project (e.g., grading, improvement plans), the City and Project applicant shall coordinate with the Wilton Rancheria to conduct a Tribal Survey of the site, which shall inform future ground-disturbing monitoring. Prior to approval of construction plans, the Project applicant shall enter into (i) an Inadvertent Discovery Treatment Plan, in substantially the form presented by Wilton Rancheria; and (ii) a Tribal Monitoring Agreement between the Project applicant and Wilton Rancheria whereby the applicant retains the services of a paid tribal monitor provided by the Wilton Rancheria to monitor certain Project activities described below, which agreement shall be to the satisfaction of the Wilton Rancheria.*

For earthwork and other ground-disturbing phases of construction, the Project applicant shall provide access to the site for a tribal monitor from Wilton Rancheria as further described herein. On-site monitoring shall be required for all construction phases that involve earthwork or ground-disturbing activities, with the exception of any earthwork or ground-disturbing activities in areas that have been previously disturbed or in areas that are explicitly identified by Wilton Rancheria during the Tribal Survey as excluded from the tribal monitoring requirement. The Project applicant shall provide the City Community Development Department with notice 10 business days prior to commencing any earthwork or other ground-disturbing activities subject to monitoring hereunder. Following receipt of such notice, the City Community Development Department shall contact the Wilton Rancheria tribal representative a minimum of seven business days before the Project applicant begins earthwork or other ground-disturbing activities to schedule the tribal monitor to be present on-site during such activities. If a response is not received 48 hours prior to commencement of ground-disturbing activities, construction activities shall proceed without the tribal monitor on-site. Should the tribal monitor not respond to the City's request for the presence of a monitor, or should the tribal monitor elect not to participate, the Project applicant's Construction Manager shall monitor for potential discoveries. The on-site monitoring shall end when the site earthwork and ground-disturbing activities are completed or when the tribal

representatives and monitor have indicated that the site has a low potential for affecting tribal cultural resources.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the Project when added to other closely related past, present, and reasonably foreseeable probable future projects. Additional detail regarding the cumulative Project setting can be found in Chapter 6, Statutorily Required Sections, of this EIR.

4.4-4 Cause a cumulative loss of cultural and tribal cultural resources. Based on the analysis below, the cumulative impact is *less than significant*.

Generally, while some cultural and tribal cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a subsurface archeological find at one site would not generally be made worse by impacts to a cultural or tribal cultural resource at another site due to development of another project. Rather, the resources and the effects upon them are generally independent. A possible exception to the aforementioned general conditions would be where a cultural or tribal cultural resource represents the last known example of its kind or is part of a larger resources site. For such a resource, cumulative impacts, and the contribution of a project to them, may be considered cumulatively significant.

As described throughout this chapter, the site and off-site improvement areas do not contain known resources that would be eligible for inclusion on the NRHP or CRHR or considered significant pursuant to CEQA. Furthermore, Mitigation Measures 4.4-2(a) through 4.4-2(e) would reduce any potential impacts to previously unknown subsurface cultural resources, tribal cultural resources, and/or human remains that are discovered on-site during construction activities to a less-than-significant level.

Similarly, future development projects throughout the Project region would be required to implement project-specific mitigation to ensure any potential impacts to identified cultural and tribal cultural resources are reduced to a less-than-significant level, where possible. Therefore, given that such impacts are generally site-specific and each future project within the Project region would be required to mitigate such impacts, any potential impacts associated with cumulative buildout of the City of Elk Grove would not combine to result in a significant cumulative impact.

Based on the above, the potential for impacts related to a cumulative loss of cultural and tribal cultural resources, to which implementation of the Project could contribute, is ***less than significant***.

Mitigation Measure(s)

None required.

4.5 Geology and Soils

4.5 GEOLOGY AND SOILS

4.5.1 INTRODUCTION

The Geology and Soils chapter of the EIR describes the geologic and soil characteristics of the site and off-site improvement areas, and evaluates the extent to which implementation of the Project could be affected by unstable earth conditions and various geologic and geomorphic hazards. In addition, the chapter evaluates any adverse impacts on paleontological resources. The impact discussions and mitigation measures presented in each technical chapter apply to both the site and the off-site improvement areas, unless otherwise stated.

Information in this chapter is primarily drawn from a Geotechnical Engineering Report prepared by Wallace Kuhl & Associates (WKA) (Appendix F).[1] Although the Geotechnical Engineering Report was prepared in 2015 for a prior iteration of the site, a Site Conditions Letter prepared for the Project by Universal Engineering Sciences (UES) determined that the report's findings for the site remain applicable for the Project.[2] In addition, information was sourced from the City of Elk Grove General Plan[3] and the associated General Plan EIR.[4]

4.5.2 EXISTING ENVIRONMENTAL SETTING

Background setting information regarding the geology, soils, seismicity, and paleontological resources associated with the site and the surrounding region is provided below.

Regional Setting and Geology

The City of Elk Grove is located in the Great Valley geomorphic province, which 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 on the west by the Coast Ranges. According to the City's General Plan EIR, the Elk Grove General Plan planning area is flat, with little variation in topography, and elevations ranging from 10 feet above mean sea level (amsl) in the west to 150 feet amsl in the east. 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. Siltstone, claystone, and sandstone are the primary types of sedimentary deposits in the Elk Grove General Plan planning area.

The Elk Grove General Plan planning area is primarily underlain by Riverbank Formation, and a section of the Laguna Formation runs north to south through the center of the Elk Grove General Plan area. The Riverbank Formation and Laguna Formation are sedimentary deposits containing layers of weathered gravel, sand, and silt eroded from metamorphic and granitic rocks of the Sierra Nevada. The Laguna Formation consists of lenticular cobble gravel, sand, and small amounts of reddish to yellowish brown silt from metamorphic, granitic, and volcanic sources. The

1 Wallace Kuhl & Associates. *Geotechnical Engineering Report Sheldon Subdivision WKA No. 10757.02*. November 2, 2015.
2 Universal Engineering Sciences. *Site Conditions Letter Summer Villas (Formerly Sheldon Subdivision)*. January 2, 2025.
3 City of Elk Grove. *General Plan.* Adopted February 2019. Amended December 13, 2023.
4 City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* February 2019.

Riverbank Formation consists of weathered reddish gravel, sand, and silt that form alluvial terraces and fans.

According to the General Plan EIR, the San Joaquin soil series is the most prevalent in the Elk Grove General Plan planning area, accounting for nearly 85 percent of soils in the Elk Grove General Plan planning area. The San Joaquin series consists of alluvium deposits from mostly granitic rock, and is characterized by a wide range of soil compositions, varying from loam to clay, depending on depth of soil. Typically, the San Joaquin soil series are well- or moderately well-drained with medium to very high runoff potential and very slow permeability. The San Joaquin soils exhibit slight erosion hazard, indicating that erosion under ordinary climatic conditions is unlikely. In addition, the San Joaquin soil group, has potential for expansion because of a high proportion of clay, especially at depths of 16 inches or greater.

Regional Seismicity

A fault is defined as a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side. A fault zone is a zone of related faults that is commonly braided and subparallel, but may be branching or divergent. Movement within a fault causes an earthquake. When movement occurs along a fault, the energy generated is released as waves that cause ground shaking. Ground shaking intensity varies with the magnitude of the earthquake, the distance from the epicenter, and the type of rock or sediment the seismic waves move through.

The potential risk of fault rupture is based on the concept of recency and recurrence. The more recently a particular fault has ruptured, the more likely the fault would rupture again. The California Geological Survey (CGS) defines an “active fault” as one that has had surface displacement within the past 11,000 years (Holocene). Potentially active faults are defined as those that have ruptured between 11,000 and 1.6 million years before the present (Quaternary). Faults are generally considered inactive if evidence of displacement is not present during the Quaternary.

According to the City of Elk Grove General Plan EIR, earthquake faults do not run through the Elk Grove General Plan planning area, however, the Elk Grove General Plan planning area could be affected by ground motion originating in other regions that experience more seismic activity, such as the San Francisco Bay Area and the Sierra Nevada.[5] Based upon seismologic and geologic conditions, the maximum level of ground motion potentially experienced in the City would occur as a result of a 6.5 magnitude earthquake on the Foothills Fault zone, or the Great Valley fault. Some property damage has occurred in the Elk Grove General Plan planning area because of seismic events in the past; however, the damage was largely the result of major seismic events occurring in adjacent areas. The areas of Sacramento County most vulnerable to seismic and geologic hazards are typically areas subject to liquefaction and subsidence.

The site and off-site improvement areas are not located within any known earthquake fault traces and are not located within an Alquist-Priolo Earthquake Fault Zone. In addition, the CGS identifies low, medium, and high severity earthquake zones within California. According to the General Plan EIR, because known faults do not traverse the planning area, the risk of surface rupture in the planning area is considered low. However, the Uniform Building Code (UBC) places all of California in the zone of greatest earthquake severity because recent studies indicate high potential for severe ground shaking.

[5] City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* [pg. 5.6-1,2]. February 2019.

A low-intensity zone is defined by the U.S. Geological Survey (USGS) as an area that is likely to experience an earthquake measuring a maximum of 5.0 to 5.9 in magnitude on the Richter scale, and a maximum intensity of VII or VIII on the Modified Mercalli scale. The Richter scale measures the amplitude of seismic waves recorded by a seismograph. The Modified Mercalli scale measures the intensity of an earthquake by the way the shaking is felt and responded to by humans, and by the amount of damage the earthquake causes to buildings and structures. The Modified Mercalli scale is shown in Table 4.5-1.

Table 4.5-1
Modified Mercalli Scale of Earthquake Intensity

Scale	Effects
I.	Earthquake shaking not felt.
II.	Shaking felt by those at rest.
III.	Felt by most people indoors; some can estimate the duration of shaking.
IV.	Felt by most people indoors. Having objects swing, windows and doors rattle, wooden walls and frames creak.
V.	Felt by everyone indoors; many estimate duration of shaking. Standing autos rock. Crockery clashes, dishes rattle, and glasses clink. Doors close, open, or swing.
VI.	Felt by everyone indoors and most people outdoors. Many now estimate not only the duration of the shaking, but also its direction and have no doubt as to its cause. Sleepers awaken. Liquids disturbed, some spilled. Small unstable objects displaced. Weak plaster and weak materials crack.
VII.	Many are frightened and run outdoors. People walk unsteadily. Pictures thrown off walls, books off shelves. Dishes or glasses broken. Weak chimneys break at roofline. Plaster, loose bricks, unbraced parapets fall. Concrete irrigation ditches damaged.
VIII.	Difficult to stand. Shaking noticed by auto drivers, waves on ponds. Small slides and cave-ins along sand or gravel banks. Stucco and some masonry walls fall. Chimneys, factory stacks, towers, elevated tanks twist or fall.
IX.	General fright. People thrown to the ground. Steering of autos affected. Branches broken from trees. General damage to foundations and frame structures. Reservoirs seriously damaged. Underground pipes broken.
X.	General panic. Conspicuous cracks in ground. Most masonry and frame structures destroyed along their foundations. Some well-built wooden structures and bridges are destroyed. Serious damage to dams, dikes, and embankments. Railroads bent slightly.
XI.	General panic. Large landslides. Water thrown out of banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flatland. General destruction of buildings. Underground pipelines completely out of service. Railroads bent greatly.
XII.	General panic. Damage nearly total, the ultimate catastrophe. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.

Source: California Division of Mines and Geology, 1973.

Site Characteristics

The approximately 115.9-acre site is located southeast of the intersection of Sheldon Road and Waterman Road, in the northeastern portion of the City, within the City's Rural Area Community Plan. The Laguna Creek tributaries centrally runs from the northeast boundary of the site to the southwest boundary of the site. In general, the portion of the site east of Laguna Creek gently slopes upward from west towards the east with surface elevations ranging from approximately 49 to 55 feet amsl. The portion of the site west of the creek gently slopes downward from northeast to southwest with surface elevations ranging from approximately 55 to 60 feet amsl.

The 2015 Geotechnical Engineering Report identified the site to include five dilapidated structures consisting of three rural, residential structures, two barns, and foundation remnants of a former structure are located on-site, west of Laguna Creek. Two long linear concrete covered areas were identified west of the dilapidated structures. A dry, depressed area (or small pond) was identified approximately 300 feet south of the longer concrete covered area, and approximately two to three feet lower than adjacent site grades (see Figure 4.5-1). As noted in Chapter 3, Project Description, the site is currently developed with a single-unit residence and accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. Two existing high voltage electrical transmission towers, overhead power lines, and water wells are located in the western portion of the site. Overhead power lines are located adjacent to the south of Sheldon Road. The northwestern portion of the site was previously used as a dairy farm.

The geologic conditions on the site are discussed below in further detail, including descriptions of existing site geology, subsurface soil conditions, seismicity and ground shaking, potential for earthquake-induced liquefaction, expansive soils, and groundwater conditions. In addition, the section below includes a description of known paleontological resources within the Project area.

Site Geology

As discussed above, the site is located within the Great Valley Geomorphic Province of California (more commonly known as the Central Valley) located in central California. The Central Valley is bounded to the north by the Klamath and Cascade mountain ranges, on the east by the Sierra Nevada, and on the west by the Coastal Ranges. The site is located near the southern end of the Sacramento Valley, approximately 8.75 miles east of the Sacramento River, and is bisected by Laguna Creek. According to the Geotechnical Engineering Report, the eastern portion of the site is underlain by Pleistocene alluvial-fan deposits of the Lower Member of the Riverbank Formation and the western portion of the site is underlain by Pliocene alluvial deposits of the Laguna Formation. The Lower Member of the Riverbank Formation consists predominantly of nonconsolidated to semi-consolidated, red to reddish brown silts, sands and gravels, with minor amounts of clay, derived from granitic and metamorphic rocks of the Sierra Nevada. The Laguna Formation consists predominantly of consolidated, interbedded gravels, sands and silts, deposited by the ancestral west-flowing Feather, Yuba, Bear, and American rivers.

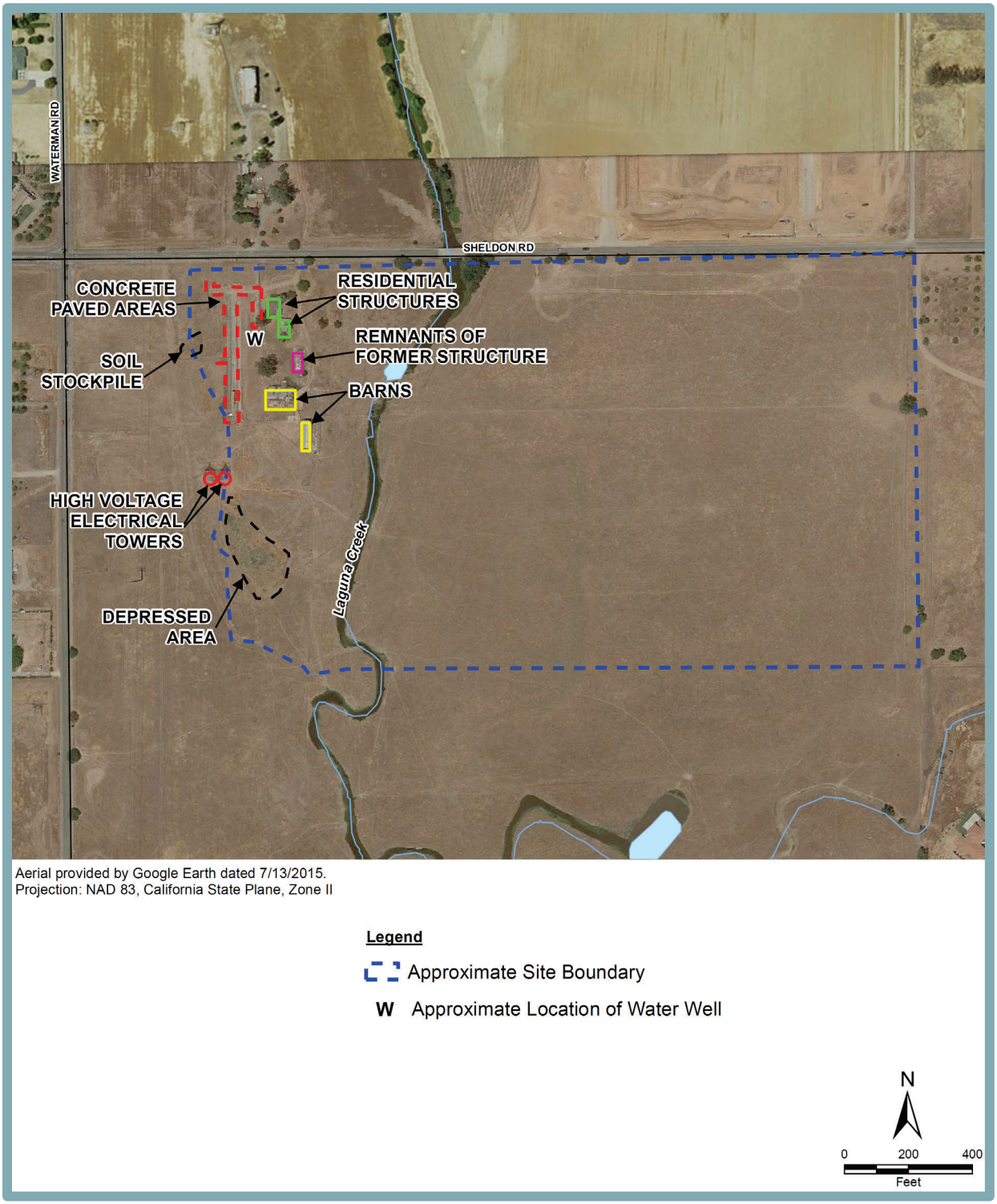
Subsurface Soil Conditions

As part of the Geotechnical Engineering Report, WKA performed subsurface investigation, including the excavation and sampling of six test pits throughout the site on October 23, 2015. The test pit locations are identified as TP1 through TP6 in Figure 4.5-2. The test pits were excavated to depths of approximately five to eight feet below the existing site grades.

Based on test pits TP1 through TP3, the surface and near-surface soils encountered east of Laguna Creek generally consist of variably cemented, sandy clay and sandy silt to depths ranging from two to four feet below existing site grades. Beneath the surface and near-surface silt and clay soils, alternating layers of silty sand and variably cemented, sandy silt are present to the maximum explored depth of eight feet below existing site grades.

Based on test pits TP4 through TP6, the surface and near-surface soils encountered west of Laguna Creek generally consist of alternating layers of silty and clayey, sandy gravel to depths ranging from one to five feet below existing site grades.

Figure 4.5-1
Site Characteristics



Note: The intent of this figure is to show the location of the water well and other site characteristics, which have not changed since the 2015 Geotechnical Engineering Report was prepared. The Approximate Site Boundary shown in the figure above is from a 2008 subdivision map.
Source: Wallace Kuhl & Associates, 2015.

*Figure not OCR compatible.

At TP6, high plasticity clay underlain by variably cemented, sandy silt was observed beneath a one-foot, surface gravel layer. Review of previous soil investigation and percolation testing suggests that undocumented fill soils were encountered in a boring performed on the northwestern portion of the site (Boring 9 as shown in Figure 4.5-2). The fill reportedly consisted of a mixture of silt, sand and gravel extending from the surface to a depth of about 2.5 feet below site grades. Two test pits (TP4 and TP5) were performed in the vicinity of the fill; however, fill soils were not observed in the test pits.

The sidewalls of the test pits were observed to be in firm and stable conditions; caving or sloughing was not observed. The soil conditions encountered at the test pit locations are consistent with the mapped geology for the site and the subsurface soil conditions encountered during the field explorations included in previous studies conducted for the site.

Seismicity and Ground Shaking

Fault rupture hazards are important near active faults and tend to reoccur along the surface traces of previous fault movements. According to the CGS Fault Activity Map of California, the closest fault to the site is the Midland Fault, located approximately 27 miles to the west.[6] The Midland Fault is a subsection of the Midland Fault Zone, which is classified as a quaternary fault zone.

Known faults do not extend across the site, and the site is not located within an Alquist-Priolo Special Studies Zone. Therefore, the potential for fault rupture, damage from fault displacement, or fault movement directly below the site is considered low. According to the City of Elk Grove General Plan EIR, an earthquake would not likely result in surface rupture in the City of Elk Grove.[7] However, faults outside of the Elk Grove General Plan General Plan planning area have the potential to cause damage in the City resulting from primary seismic hazards, including ground shaking, and shaking from earthquake-generated ground motion waves should be considered likely in the Project area.

Liquefaction

Liquefaction occurs when saturated fine-grained sands and/or silts lose physical strength temporarily during earthquake-induced shaking and behave as a liquid due to the loss of point-to-point grain contact and transfer of normal stress to the pore water. Liquefaction potential varies with water level, soil type, material gradation, relative density, and probable intensity and duration of ground shaking. The CGS has designated certain areas within California as potential liquefaction hazard zones, which are areas considered at risk of liquefaction-related ground failure during a seismic event based upon mapped surficial deposits and the depth to the areal groundwater table. The site and off-site improvement areas are not currently mapped for potential liquefaction hazard by the CGS.

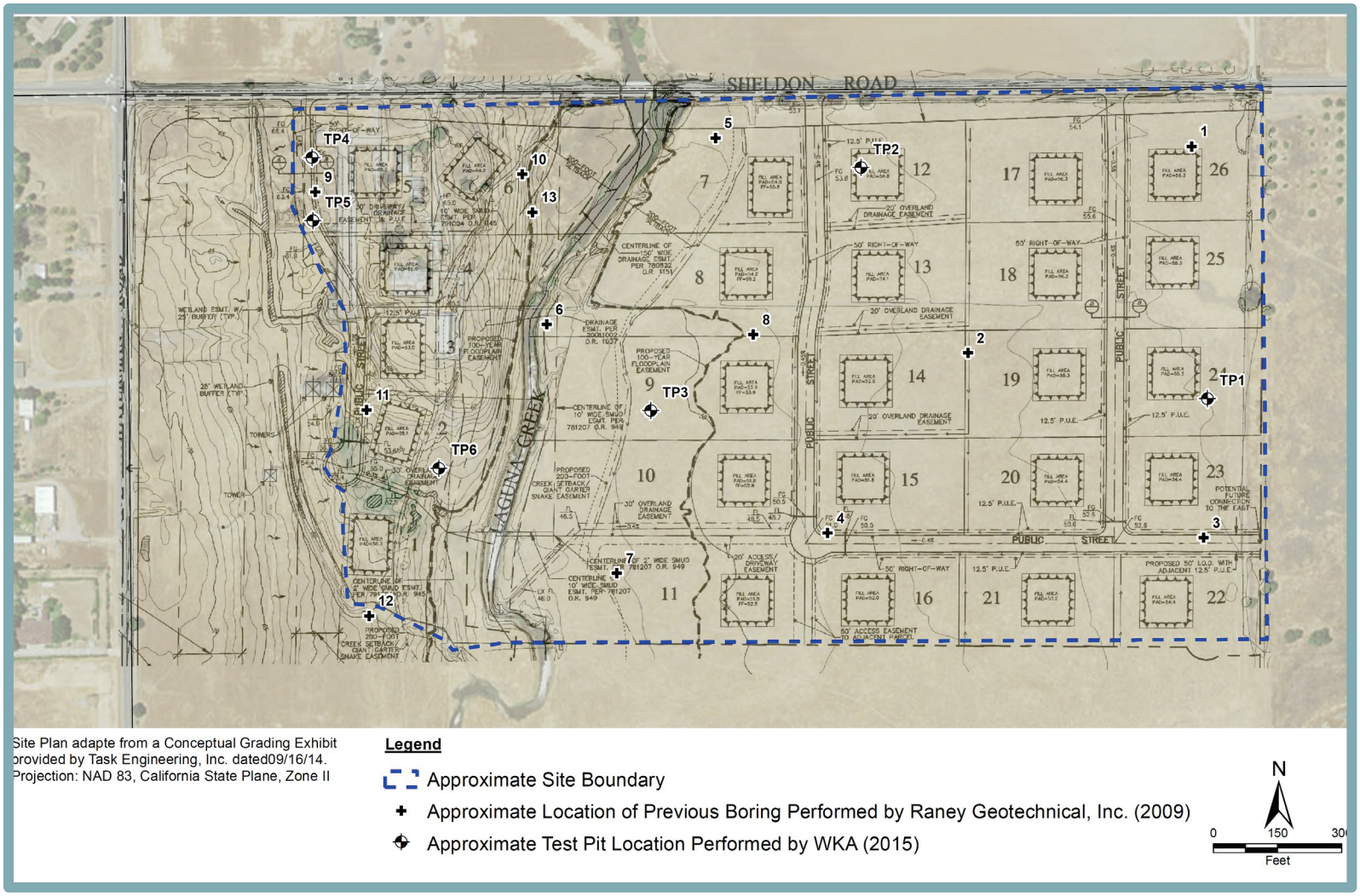
According to the Geotechnical Engineering Report, based on the variably cemented condition of the soils encountered in the test pits and previous borings, the geologic age of the Quaternary and Tertiary deposits at the site, and the lack of groundwater within the upper 50 feet of the site, the potential for liquefaction to occur at the site during a seismic event is very low. Reported instances of liquefaction have not occurred within the Elk Grove General Plan planning area during the major earthquake events of 1892 (Vacaville-Winters), 1906 (San Francisco), 1989 (Loma Prieta), and 2014 (American Canyon).

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6 Department of Conservation. *California Geological Survey Faut Activity Map of California*. Available at: https://maps.conservation.ca.gov/cgs/fam/. Accessed April 2025.

7 City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* [pg. 5.6-9]. February 2019.

Figure 4.5-2
Test Pit Locations



Note: The intent of this map is to show the test pit locations, which have not changed since the 2015 Geotechnical Engineering Report was prepared. The approximate Site Boundary shown in the figure above is from a previously 2008 subdivision.
Source: Wallace Kuhl & Associates, 2015.

*Figure not OCR compatible.

Expansive Soils

Expansive soils are characterized by their ability to undergo significant volume change due to variation in moisture content. Compressible materials consisting of surficial organic material, loose soils, undocumented fills, debris, rubble, rubbish, etc., are considered unsuitable materials for support of proposed structures as such materials can differentially settle. Changes in soil moisture content can result from rainfall, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors and may cause unacceptable settlement of structures.

According to the Geotechnical Engineering Report, the surface and near-surface soils are somewhat variable throughout the site. Laboratory tests performed on surface and near-surface soils encountered at the test pit locations and previous borings revealed the soils possess low to high plasticity when tested in accordance with American Society of Testing and Materials (ASTM) D4318. In addition, laboratory tests also revealed the soils possess a “very low” to “high” expansion potential when tested in accordance with ASTM D4829 test method. Therefore, the Geotechnical Engineering Report concluded that the near-surface soils at the site are capable of exerting low to high expansion pressures on building foundations, foundation slabs, and exterior flatwork. It should be noted that the surface and near-surface soils described above exclude the existing on-site stockpiles. Chapter 4.6, Hazards and Hazardous Materials, of this EIR includes an evaluation of the soil stockpiles and Mitigation Measure 4.6-2(a) provides an opportunity for the soil stockpiles to remain in place if future development would avoid the stockpiles.

Groundwater

Groundwater was not observed in the test pits performed as part of the Geotechnical Engineering Report to the maximum exploration depth of approximately eight feet below existing site grades. Groundwater was also not observed in previous borings conducted on the site, which were drilled to a maximum depth of approximately 20 feet below site grades. WKA reviewed the California Department of Water Resources (DWR) website, as DWR periodically monitors groundwater levels in wells across the State. Based on the DWR data, a ground surface elevation of 59 feet amsl is identified for Well No. 07N06E20J001M, which is a well located approximately 0.5-mile northeast of the site. Groundwater data for the well was recorded for approximately 20 years, from May 1990 to at least April 2010, showing that the highest recorded groundwater elevation was approximately 33 feet below mean sea level and the lowest recorded groundwater elevation was approximately 55 feet below mean sea level. Based on such data, groundwater elevations at the site are likely to have been deeper than 80 feet below site grades during the period of 1990 to 2010. Accordingly, the Geotechnical Engineering Report concluded that permanent groundwater should not be a significant factor in the proposed development of the site. However, perched water should be anticipated above the relatively dense, gravelly, and variably cemented soils encountered at various depths across the site.

Paleontological Resources

Paleontological resources are the mineralized (fossilized) remains of prehistoric plant and animal life exclusive of human remains or artifacts. Fossil remains such as bones, teeth, shells, and leaves are found in geologic deposits (rock formations) where the resources were originally buried. Paleontological resources include fossil remains, as well as fossil localities and formations, which have produced fossil material in other nearby areas. Due to the presence of Riverbank Formation and Laguna Formation under the Elk Grove General Plan planning area, much of the Elk Grove General Plan planning area is considered highly sensitive for paleontological resources. The Laguna Formation is located in the eastern and northeastern

portions of the Elk Grove General Plan planning area and has been known to produce Pliocene fossils. The Riverbank Formation, located throughout the Elk Grove General Plan planning area, is known to produce vertebrate fossils dating to the late Pleistocene in areas west of Elk Grove Florin Road. 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. As such, both Laguna Formation and the Riverbank Formation have a high sensitivity rating for paleontological resources.

Off-Site Improvement Areas

As discussed in further detail in Chapter 3, Project Description, of this EIR, development of the Project would trigger the need for off-site roadway improvements. Specifically, the Project would require improvements to the existing roundabouts at the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections. The Sheldon Road/Waterman Road intersection is located adjacent to the site's northwest corner. Under existing conditions, both intersections consist of multi-lane roundabouts that may be approached from the north, south, east, and west, and include a vegetated central island. Additional off-site improvements include the construction of approximately 6,500 linear feet of off-site four- to six-inch diameter force mains in Sheldon Road and Elk Grove Florin Road to support the Project, as well as the extension of water mains to either connect to an existing main in Waterman Road or near Elk Grove Florin Road. The foregoing off-site improvement areas would primarily be within existing disturbed areas and/or within existing roadway rights-of-way (ROW); however, depending on the chosen alignment of the water line connection, a water main extension along the Project's Sheldon Road ROW may be required, which would include a crossing either under Laguna Creek or attached to the existing Sheldon Road Bridge over Laguna Creek. The off-site improvement areas are anticipated to have similar geologic and soil characteristics as the site, as described above.

4.5.3 REGULATORY CONTEXT

The following section is a brief summary of the regulatory context under which soils, geology, seismic hazards, and paleontological resources are managed at the federal, State, and local levels.

Federal Regulations

The following are the federal environmental laws and policies relevant to soils, geology, seismic hazards, and paleontological resources.

Federal Earthquake Hazards Reduction Act

Passed by Congress in 1977, the Federal Earthquake Hazards Reduction Act is intended to reduce the risks to life and property from future earthquakes. The Act established the National Earthquake Hazards Reduction Program (NEHRP). The goals of NEHRP are to educate and improve the knowledge base for predicting seismic hazards, improve land use practices and building codes, and to reduce earthquake hazards through improved design and construction techniques.

International and Uniform Building Codes

The UBC was first published in 1927 by the International Council of Building Officials and is intended to promote public safety and provide standardized requirements for safe construction. The UBC was replaced in 2000 by the new International Building Code (IBC), published by the International Code Council (ICC), which is a merger of the International Council of Building Officials' UBC, Building Officials and Code Administrators International's National Building Code,

and the Southern Building Code Congress International's Standard Building Code. The intention of the IBC is to provide more consistent standards for safe construction and eliminate any differences between the three preceding codes. All State building standard codes are based on the federal building codes with California amendments.

Federal Clean Water Act

Section 402 of the federal Clean Water Act (CWA) mandates that certain types of construction activities comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) stormwater program. The Phase II Rule, issued in 1999, requires that construction activities that disturb land equal to or greater than one acre require permitting under the NPDES program. In California, permitting occurs under the General Permit for Stormwater Discharges Associated with Construction Activity, issued to the State Water Resources Control Board (SWRCB), implemented and enforced by the nine Regional Water Quality Control Boards (RWQCBs).

As of July 1, 2010, all dischargers with projects that include clearing, grading or stockpiling activities expected to disturb one or more acres of soil are required to obtain compliance under the NPDES Construction General Permit Order 2009-0009-DWQ. The General Permit requires all dischargers, where construction activity disturbs one or more acres, to take the following measures:

1. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to include a site map(s) of existing and proposed building and roadway footprints, drainage patterns and stormwater collection and discharge points, and pre- and post- project topography;
2. Describe types and placement of Best Management Practices (BMPs) in the SWPPP that will be used to protect stormwater quality;
3. Provide a visual and chemical (if non-visible pollutants are expected) monitoring program for implementation upon BMP failure; and
4. Provide a sediment monitoring plan if the area discharges directly to a water body listed on the 303(d) list for sediment.

To obtain coverage, a SWPPP must be submitted to the RWQCB electronically and a copy of the SWPPP must be submitted to the City of Elk Grove. When Project construction is completed, the landowner must file a Notice of Termination (NOT).

State Regulations

The following are the State environmental laws and policies relevant to soils, geology, seismic hazards, and paleontological resources.

Alquist-Priolo Earthquake Fault Zone Act

The 1972 Alquist-Priolo Earthquake Fault Zone Act was passed to prevent the new development of buildings and structures for human occupancy on the surface of active faults. The Act is directed at the hazards of surface fault rupture and does not address other forms of earthquake hazards. The locations of active faults are established into fault zones by the Alquist-Priolo Zone Act. Local agencies regulate any new developments within the appropriate zones in their jurisdiction.

The Alquist-Priolo Zone Act regulates development near active faults so as to mitigate the hazard of surface fault rupture. The Alquist-Priolo Zone Act requires that the State Geologist (Chief of the California Department of Mines and Geology [CDMG]) delineate "special study zones" along

known active faults in California. Cities and counties affected by the special study zones must regulate certain development projects within the special study zones. The Alquist-Priolo Zone Act prohibits the development of structures for human occupancy across the traces of active faults. According to the Alquist-Priolo Zone Act, active faults have experienced surface displacement during the last 11,000 years. Potentially active faults are those that show evidence of surface displacement during the last 1.6 million years. A fault may be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity sometimes is difficult to obtain and may not exist.

Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act of 1990 (California Public Resources Code [PRC] Section 2690-2699.6) addresses non-surface rupture earthquake hazards, including liquefaction, induced landslides, and subsidence. A mapping program is also established by this Act, which identifies areas within California that have the potential to be affected by such non-surface rupture hazards. The Seismic Hazards Mapping Act specifies that the lead agency for a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

California Building Standards Code

The State of California regulates development within the State through a variety of tools that reduce or mitigate potential hazards from earthquakes or other geologic hazards. The California Building Standards Code (CBSC) (California Code of Regulations [CCR], Title 24) governs the design and construction of all building occupancies and associated facilities and equipment throughout California. In addition, the CBSC governs development in potentially seismically active areas and contains provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. The California building standards include building standards in the national building code, building standards adapted from national codes to meet California conditions, and building standards adopted to address particular California concerns. It should be noted that the CBSC is updated on a triennial cycle. The most recent update, the 2022 CBSC, became effective on January 1, 2023; therefore, further updates are not anticipated until 2026.

Local Regulations

Relevant goals and policies from the City of Elk Grove General Plan and various other local guidelines and regulations related to soils, geology, seismic hazards, and paleontological resources are provided below.

City of Elk Grove General Plan

The following goals and policies from the City of Elk Grove General Plan are applicable to the Project:

Goal ER-3 Minimal Risk from Geologic and Seismic Hazards

Policy ER-3-2 Seek to ensure that new structures are protected from damage caused by geologic and/or soil conditions.

City of Elk Grove Municipal Code

The City of Elk Grove Municipal Code (EGMC) includes ordinances associated with geology and soils. The applicable ordinances are discussed in further detail below.

Chapter 16.04: California Building Code

The City of Elk Grove has adopted the 2022 California Building Code, as Chapter 16.04 of the EGMC. Pursuant to Section 16.04.010 of the EGMC, the provisions of Chapter 16.04 regulate the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, wiring, plumbing, use, height, area and maintenance of all buildings and structures within the City of Elk Grove.

Chapter 16.44: Land Grading and Erosion Control

The purpose of Chapter 16.44, Land Grading and Erosion Control, of the EGMC, is to minimize damage to surrounding properties and public ROW, degradation of the water quality of watercourses, and the disruption of natural or City-authorized drainage flows caused by the activities of clearing and grubbing; grading; filling and excavating of land; sediment and pollutant runoff from other construction-related activities; and to comply with the provisions of the City's NPDES Permit Number CA0082597 issued by the RWQCB. Chapter 16.44 generally establishes procedures and standards for controlling erosion, sedimentation, and other pollutant runoff in the City. Pursuant to Section 16.44.050 of the EGMC, the provisions of Chapter 16.44 are applicable to activities that involve: (1) grading, filling, excavating, storing, or disposing 350 cubic yards or more of soil or earthy material, or (2) clearing and grubbing one acre or greater of land within the City.

4.5.4 IMPACTS AND MITIGATION MEASURES

The section below describes the standards of significance and methodology used to analyze and determine the Project's potential impacts related to geology, soils, and paleontological resources. In addition, a discussion of the Project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an impact related to geology and soils is considered significant if the Project would result in any of the following:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault;
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction; and
    - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located 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- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the UBC (1994), creating substantial risks to life or property;

- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water (see Chapter 5, Effects Not Found to be Significant); or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

As noted above, issues related to whether the Project would result in impacts related to having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

Method of Analysis

The analysis presented within this chapter is based primarily on the Geotechnical Engineering Report prepared for the Project by WKA. The purpose of the Geotechnical Engineering Report was to evaluate the subsurface soil and geologic conditions within the site and provide conclusions and recommendations pertaining to the geotechnical and geologic aspects of the Project. The report was intended for project planning and due-diligence purposes only. While the report was prepared for a prior iteration of the Project and analyzed a smaller development footprint, it is reasonable to assume that similar soil conditions would occur on the remainder of the site as what is identified in the report. Nonetheless, additional geotechnical investigation and analysis would be required for the remainder of the site and the design and construction of the Project. The scope of the Geotechnical Engineering Report included the following:

- Site reconnaissance;
- Review of United States Geological Survey (USGS) topographic maps, historical aerial photographs, available groundwater data;
- Review of previous environmental assessments completed for the site and its vicinity, including:
    - Raney Geotechnical, Inc. *Soil Investigation and Percolation Testing*. August 2009; and
    - WKA. *Geotechnical Engineering Report*. December 2013;
- Subsurface investigation, including the excavation and sampling of six test pits to depths ranging from approximately five to eight feet below the existing site grades;
- Collect representative bulk samples of near-surface soils;
- Laboratory testing of representative selected soil samples collected to determine various soil engineering properties;
- Geotechnical engineering analysis of the on-site conditions, soil characteristics, and geology and seismicity;
- Development of geotechnical recommendations and considerations regarding earthwork construction; and
- Development of geotechnical design criteria for code-based seismicity, foundations, slabs-on-grade, retaining walls, and pavements.

In addition, a Site Conditions Letter was prepared for the Project by UES.[8] As part of the Site Conditions Letter, UES performed a site reconnaissance at the site and verified that the soil

[8] Universal Engineering Sciences. *Site Conditions Letter Summer Villas (Formerly Sheldon Subdivision)*. January 2, 2025.

conditions remain in relatively the same condition as reported in the WKA Geotechnical Engineering Report.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Project in comparison with the standards of significance identified above.

4.5-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, and seismic-related ground failure. Based on the analysis below, the impact is *less than significant*.

Known faults do not extend across the site or off-site improvement areas, and the site and off-site improvement areas are not located within an Alquist-Priolo Special Studies Zone. Therefore, the potential for fault rupture, damage from fault displacement, or fault movement directly below the site or off-site improvement areas is considered low. However, according to the General Plan EIR, while ground shaking is not considered a major geologic hazard in the City of Elk Grove, the site and off-site improvement areas are located within an area where shaking from earthquake-generated ground motion waves should be considered likely.

While lower-intensity earthquakes could potentially occur at the site or off-site improvement areas, the design of project structures would be required to adhere to the provisions of the CBSC. The CBSC contains provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. Specifically, projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage, but with some non-structural damage; and 3) resist major earthquakes without collapse, but with some structural, as well as non-structural damage. Although conformance with the CBSC does not guarantee that substantial structural damage would not occur in the event of a maximum magnitude earthquake, conformance with the CBSC can reasonably be assumed to ensure structures would be survivable, allowing occupants to safely evacuate in the event of a major earthquake.

Furthermore, according to the Geotechnical Engineering Report, soil instability is not a hazard for the site and the potential for liquefaction and significant adverse impacts from liquefaction are low. Due to the relatively low seismicity of the Project area, the potential for seismically induced damage to future on-site structures due to surface rupture and settlement is unlikely. Impacts related to liquefaction and landslide are discussed further in Impact 4.5-3 of this chapter.

Overall, the proposed development, including off-site improvements, would not be subject to substantial risks related to fault rupture hazards. Due to the relatively low seismicity of the area, compliance with CBSC requirements related to seismic design, and the lack of substantial natural slopes at the site and off-site improvement areas, the potential for the Project to expose people or structures to the risk of loss, injury, or

death involving rupture of an earthquake fault, strong ground shaking, or ground failure would be ***less than significant***.

Mitigation Measure(s)
None required.

4.5-2 Result in substantial soil erosion or the loss of topsoil. Based on the analysis below, the impact is *less than significant*.

Erosion refers to the removal of soil from exposed bedrock surfaces by wind or water. Although naturally occurring, erosion is often accelerated by human activities that disturb soil and vegetation. Grading, excavation, removal of vegetation cover, and loading activities associated with construction could temporarily increase erosion, runoff, and sedimentation. Buildout of the Project would require grading, excavation, and other construction-related activities, which, during the early stages of construction, could cause topsoil to be exposed, potentially resulting in wind erosion or an accelerated rate of erosion during storm events. However, the topography of the site is relatively level, and upon development of the site with buildings and structures, the amount of exposed soil that may be lost due to wind or stormwater runoff would be minimized, as the western portion of the site that would be subject to grading activities would be largely covered with impervious surfaces. In addition, with respect to the off-site improvements, all such improvements would primarily occur within already disturbed areas and any topsoil exposure associated with such would be minor and temporary during construction activities.

NPDES permits are required for the discharge of pollutants to waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, creeks, bays, dry stream beds, wetlands, and storm sewers. The RWQCB issues permits in lieu of direct issuance by the Environmental Protection Agency (EPA). The terms of the NPDES permits implement pertinent provisions of the Federal CWA. In accordance with the NPDES General Construction Permit, a SWPPP is required for any project that disturbs at least one acre of soil. Because the Project would disturb more than one acre of soil, a SWPPP in compliance with the NPDES would need to be prepared.

Pursuant to NPDES requirements, a SWPPP would be prepared for the Project after final improvement maps are submitted and after the City's Design Review process (i.e., not during the current SPA planning stage). The SWPPP would include the site plan, drainage patterns and stormwater collection and discharge points, BMPs, and a monitoring and reporting framework for implementation of BMPs, as necessary. In addition, a Notice of Intent (NOI) would be filed with the RWQCB. Construction activities would be required to comply with the conditions of this permit, including the implementation of multiple erosion and sediment control BMPs identified in the SWPPP. A Qualified SWPPP Practitioner (QSP) would ensure compliance with the SWPPP through regular monitoring and visual inspections during construction activities. The QSP for the Project would amend the SWPPP and revise Project BMPs, as determined necessary through field inspections, to protect against substantial erosion or siltation on- or off-site.

Compliance with a project-specific SWPPP would help ensure that soil erosion during construction and rain events is limited to the maximum extent feasible. Therefore, the potential for erosion and associated hazards would be low. During Project operations, vehicles would be limited to paved areas of the site, and all surfaces would be either paved or landscaped; thus, the potential for erosion to occur during Project operations is also limited. Implementation of the SWPPP and BMPs would ensure that the Project would not result in substantial erosion or the loss of topsoil.

Chapter 16.44 of the EGMC includes requirements to ensure compliance with the State of California's NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity (NPDES General Permit No. CAS0082597). Furthermore, Chapter 16.44 of the EGMC establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion caused by land clearing, grubbing, grading, filling, and land excavation activities. Section 16.44.050 includes the following requirement:

> Except as provided by Elk Grove Municipal Code Section 16.44.060, 16.44.065 or 16.44.070, a grading and erosion control permit shall be required to: A) grade, fill, excavate, store or dispose of three hundred fifty (350 yd^3) cubic yards or more of soil or earthy material, or B) clear and grub one (1) acre or greater of land within the City. A separate permit is required for work on each site unless sites are contiguous, have the same ownership, and are included in the approved plan. Any determination by the Director as to whether a permit is required may be appealed pursuant to the provisions of Elk Grove Municipal Code Section 16.44.300.

Pursuant to Section 16.44.090, plans submitted to the City must include the location, implementation schedule, and maintenance schedule of all erosion control measures and sediment control measures to be implemented or constructed prior to, during or after the proposed activity, along with a description of measures designed to control dust and stabilize the construction site road and entrance. Additionally, pursuant to Section 16.44.150, grading and erosion control permit applications and improvement plans may only be issued or approved by the City if the Public Works Director finds that the Project would not adversely affect surrounding properties and public ROW, the water quality of watercourses, or existing drainage.

Based on the above, the Project would not result in substantial soil erosion or the loss of topsoil, and thus, a ***less-than-significant*** impact could occur.

Mitigation Measure(s)

None required.

4.5-3 Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, or be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, creating substantial risks to life or property. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Issues associated with unstable geologic units and/or soils, including landslide, lateral spreading, subsidence, liquefaction, collapse, and expansive soils are discussed below.

Landslides

A landslide is defined as the movement of a mass of rock, debris, or earth down a slope. Almost every landslide has multiple causes. Slope movement occurs when forces acting down-slope exceed the strength of the earth materials that compose the slope. Landslides in California occur mainly due to intense rainfall or are triggered by earthquakes. According to the CGS, the site is not currently within a State of California Seismic Hazard Zone for seismically induced landsliding.[9] In addition, the site is relatively level and flat with elevations ranging from 49 to 60 feet amsl. Furthermore, constructed slopes are not located on or adjacent to the site. Given that the site is not mapped in a landslide zone and the site does not contain any slopes that could be subject to landslide risks, future development of the site with residential uses and associated improvements would not result in on- or off-site landslide hazards.

Lateral Spreading

Lateral spreading is associated with terrain near free faces such as excavations, channels, or open bodies of water. As discussed above, the site is relatively level, with elevations ranging from approximately 49 to 60 feet amsl. Given that the proposed development area and the surrounding area do not contain any steep slopes or free faces, the Project would not be subject to substantial risks related to lateral spreading.

Subsidence/Settlement

Subsidence is the settlement of soils of very low density, generally from either oxidation of organic material, desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years, and is a common consequence of liquefaction. Due to the site's low potential for liquefaction, the potential for seismically induced settlement to occur at the site is also considered to be low.

Liquefaction

Liquefaction occurs when saturated fine-grained sand and/or silts lose their physical strength temporarily during earthquake-induced shaking and behave as a liquid. The CGS has designated certain areas within California as potential liquefaction hazard

[9] California Geological Survey. *Landslide Inventory Map.* Available at: https://maps.conservation.ca.gov/cgs/lsi/app/. Accessed April 2025.

zones; however, the site is not currently mapped for potential liquefaction hazard by the CGS. Additionally, the Geotechnical Engineering Report indicates that a low probability of liquefaction exists at the site. Therefore, the future on-site development and associated Project improvements would not be subject to substantial risks associated with liquefaction. While the Geotechnical Engineering Report was prepared for a prior iteration of the Project and analyzed a smaller development footprint, it is reasonable to assume that similar soil conditions would occur on the remainder of the site as what is identified in the report. Nonetheless, additional geotechnical investigation and analysis would be required for the remainder of the site and the design and construction of the Project.

Collapse

As discussed above, the site is not located in an area that would likely be subject to strong ground shaking, and is not underlain by any active faults or located within an Alquist-Priolo Fault Study Zone. Additionally, all structures constructed as part of the Project would be required to adhere to the provisions of the most recent version of the CBSC in effect at the time of building permit issuance. Structures built according to the seismic design provisions of current building codes would be able to resist major earthquakes without collapse, but with some structural, as well as non-structural damage. Given the Project's adherence to the CBSC requirements, the Project would not be subject to substantial risks associated with building collapse.

Expansive Soils

According to the Geotechnical Engineering Report, the near-surface soils at the site are considered capable of exerting low to high expansion pressures on building foundations, foundation slabs, and exterior flatwork. Thus, expansive soils have the potential to compromise the structural integrity of Project features, which could result in a significant impact. The Geotechnical Engineering Report includes recommendations for subgrade preparation, foundation, interior foundation slab, and exterior flatwork construction to reduce potential damage. Without implementation of the recommended measures, on-site expansive soils could cause differential movement (either shrink or swell) and significant damage to overlying structures. Thus, the Project would have the potential to result in substantial risks related to expansive soils. As discussed above, while the Geotechnical Engineering Report was prepared for a prior iteration of the site and analyzed a smaller development footprint, it is reasonable to assume that similar soil conditions would occur on the remainder of the site as what is identified in the report. Nonetheless, additional geotechnical investigation and analysis would be required for the remainder of the site and the design and construction of the Project.

Off-Site Improvement Areas

The Geotechnical Engineering Report did not account for the off-site improvement areas associated with the Project. As stated previously, the majority of the off-site improvements would occur within existing roadway ROW; however, depending on the chosen alignment of the water line connection, a water main extension along the Project's Sheldon Road ROW may be required, which would include a crossing of Laguna Creek, either by boring and jacking the line under Laguna Creek or attaching the line to the existing Sheldon Road Bridge. In addition, the engineering design of the remaining off-site improvements are not yet known. As such, further analysis of the

geological conditions at the off-site improvement areas would be required to ensure that the off-site improvements would not result in any impacts associated with unstable geologic units and/or soils, including landslide, lateral spreading, subsidence, liquefaction, collapse, and expansive soils.

Conclusion

From a geotechnical standpoint, provided that the recommendations included in Geotechnical Engineering Report prepared for the Project are implemented into the Project design and specifications, the geological and soil conditions on the site would be adequate to support development of the Project. However, conformance with such recommendations cannot be ensured, and the remainder of the site was not subject to the analysis conducted as part of the Geotechnical Engineering Report. Furthermore, a final design-level geotechnical engineering report has not yet been prepared for the site or off-site improvement areas. As a result, a ***significant*** impact could occur related to unstable soils, including expansive soil.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.5-3 *In conjunction with the submittal of any improvement plans associated with future Tentative Maps or the off-site improvements, the Project applicant shall submit a design-level geotechnical engineering report produced by a California Registered Civil Engineer or Geotechnical Engineer to the City of Elk Grove Community Development Department for review and approval. The report shall include the results of a site-specific subsurface exploration, laboratory testing, and engineering analysis. The design-level report shall be performed after site configuration/layout has been established. The investigation shall include several exploratory borings and test pits throughout the site to evaluate the potential presence of undocumented fill, tilled/disturbed soil thickness, liquefaction potential, and excavation characteristics. The design-level geotechnical engineering report shall evaluate soil expansion potential and include the results of a laboratory plasticity index and expansion index testing. The report shall include the geotechnical recommendations specified in the Geotechnical Engineering Report prepared for the site by WKA, unless it is determined in the design-level report that one or more recommendations need to be revised. The report shall also address the off-site improvement areas.*

The design-level geotechnical engineering report shall address, at a minimum, the following:

- *Compaction specifications and subgrade preparation for on-site soils;*
- *Structural foundations;*
- *Grading practices;*
- *Liquefaction potential; and*

- *Expansive/unstable soils, including fill.*

Prior to approval of any improvement plans and issuance of building permits, the foundation and improvement plans shall incorporate design-level recommendations. Road improvements shall meet the standards provided in the City's Improvement Standards, including related to soil and base compaction. All foundation and improvement plans shall be reviewed and approved by the City of Elk Grove Community Development Department.

4.5-4 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As previously discussed, the Project area is underlain by the Riverbank Formation and Laguna Formation, which both have a high sensitivity rating for paleontological resources. Specifically, the eastern areas of the General Plan General Plan planning area, where the site is located, are underlain by the Laguna Formation, which has been known to produce Pliocene fossils. Although the site and off-site improvement areas do not contain any known paleontological resources or unique geologic features, given the undeveloped nature of the site and trenching/excavation required for the off-site improvements, the potential exists that a unique paleontological resource or site could be unearthed during Project construction activities.

Based on the above, development of the Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. As a result, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.5-4 *Prior to the start of on- or off-site ground-disturbing activities associated with any future Tentative Maps, the Project applicant shall inform all construction personnel involved with earthmoving activities 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. Should paleontological resources be discovered during ground-disturbing activities, work shall be immediately halted in the area within 50 feet of the find. Construction may continue in areas outside of the buffer zone. The applicant shall notify the City of Elk Grove Community Development Department and retain a qualified paleontologist to inspect the discovery. If not deemed significant, further mitigation is not necessary. If deemed significant under criteria established by the Society for Vertebrate Paleontology with respect to authenticity, completeness, preservation, and identification, the resource(s) shall then be salvaged by the qualified paleontologist and deposited in an accredited and permanent scientific*

institution (e.g., University of California Museum of Paleontology [UCMP] or Sierra College), where the discovery would be properly curated and preserved for the benefit of current and future generations. A report detailing the findings of the qualified paleontologist and ultimate deposition of the resource(s) shall be submitted to the City before construction activities can resume at the site where the paleontological resource(s) was discovered. The language of this mitigation measure shall be included on any future grading plans, utility plans, and improvement plans approved by the City of Elk Grove Community Development Department for the Project where excavation work would be required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the Project when added to other closely related past, present, and reasonably foreseeable probable future projects. Additional detail regarding the cumulative Project setting can be found in Chapter 6, Statutorily Required Sections, of this EIR.

4.5-5 Cumulative increase in the potential for geological related impacts and hazards. Based on the analysis below, the cumulative impact is *less than significant*.

Impacts to geology, soils, seismicity, and paleontological resources related to implementation of the Project are analyzed throughout this chapter. As discussed above, existing geological and soil conditions on the site would generally be adequate to support development of the Project. In addition, Mitigation Measure 4.5-3, which requires the preparation of a final design-level geotechnical engineering report, would ensure the appropriate recommendations are implemented to reduce Project-specific impacts related to geology and soils to a less-than-significant level.

While some geologic characteristics may affect regional construction practices, impacts and mitigation measures are primarily site-specific and project-specific. For example, impacts resulting from development on expansive soils at one site are not affected by impacts from development on expansive soils or undocumented fill at another site. Rather, the soil conditions, and the implications of such conditions for each project, are independent.

As such, the potential for cumulative impacts related to geology, soils, seismicity, and paleontological resources, to which implementation of the Project and off-site improvements might contribute, is ***less than significant***.

Mitigation Measure(s)

None required.

4.6 Hazards and Hazardous Materials

4.6 HAZARDS AND HAZARDOUS MATERIALS

4.6.1 INTRODUCTION

The Hazards and Hazardous Materials chapter of the EIR describes existing and potentially occurring hazards and hazardous materials within the Project area. The chapter includes a discussion of potential impacts posed by such hazards to the environment. In addition, surrounding land uses are discussed to provide an assessment of whether the Project could impact surrounding land uses. However, the question of whether surrounding land uses could impact the Project's future residents is not a question requiring analysis under CEQA.[1]

The Hazards and Hazardous Materials chapter is primarily based on information drawn from a Phase I Environmental Site Assessment (Phase I ESA) prepared by Pinnacle Environmental, Inc. (PEI) (see Appendix G),[2] a Phase I ESA Peer Review Letter prepared for the Project by Geocon Consultants. Inc. (Geocon) (see Appendix H),[3] and a Phase I ESA Addendum prepared for the Project by PEI (see Appendix I),[4] as well as the City of Elk Grove General Plan[5] and associated EIR.[6]

4.6.2 EXISTING ENVIRONMENTAL SETTING

The following section includes a definition of hazardous materials and descriptions of the existing conditions associated with the site related to hazards and hazardous materials.

Hazardous Materials

The term "hazardous substance" refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if the material appears on a list of hazardous materials prepared by a federal, State, or local regulatory agency or if the material has characteristics defined as hazardous by such an agency. The California Environmental Protection Agency (CalEPA), California Department of Toxic Substance Control (DTSC) defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

> […] its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to,

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1 Per the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (*CBIA*), the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. 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." (*Id.* at pp. 377-378.).

2 Pinnacle Environmental, Inc. *Phase I Environmental Site Assessment*. June 7, 2024.

3 Geocon Consultants, Inc. *Phase I Environmental Site Assessment Report Peer Review Letter*. November 6, 2024.

4 Pinnacle Environmental, Inc. *June 7, 2024 Phase I Environmental Site Assessment Addendum Limited Soil Pile Excavation Observations*. March 10, 2025.

5 City of Elk Grove. *General Plan*. Adopted February 2019. Amended December 13, 2023.

6 City of Elk Grove. *General Plan Update Draft Environmental Impact Report*. February 2019.

> carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

The following discussion focuses on the potential Recognized Environmental Conditions (RECs) associated with the site. A REC indicates the presence or likely presence of any hazardous substances in, on, or at a property due to any release into the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment.[7]

Additionally, the following section includes a discussion of historical RECs (HRECs) associated with the site. A HREC indicates a past release of hazardous substances or petroleum products that has occurred in connection with a property and has been addressed to the satisfaction of the applicable regulatory authority. A HREC does not have any property use restrictions, and thus, does not have any use limitations with respect to future activities on the property. The following discussion also addresses the possibility of controlled RECs (CRECs) associated with the site. A CREC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

Project Area Conditions

According to the Phase I ESA, the site was originally developed with a single-unit residence on the northwest corner of the site, prior to 1938. Aerial photographs show that accessory structures were added to the northern portion of the property in 1947, 1957, 1964, and 1977. Regulatory records reviewed as part of the Phase I ESA indicate that the property was used as a dairy farm as early as 1975. By 1984, aerial imagery shows that the northwestern portion of the property was still being used as a dairy farm, with a large wastewater lagoon located south of the barn structures and west of Laguna Creek. By 1993, a long, narrow milking stall (aligned north-south) was observed west of the residence and barns. By 1998, the southern wastewater lagoon had been removed. The barns and other dairy structures were demolished prior to May 2023.

The approximately 115.9-acre site is currently occupied by single-story structures (dwelling, and two accessory structures) in the northwest corner of the site. The structures appeared adequately maintained at the time of the site reconnaissance conducted as part of the Phase I ESA. Signs of recent renovation/construction were observed around the subject structures (e.g., newer paint, windows, electrical). The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries centrally run from the northern and eastern boundaries of the site to the southern boundary of the site. According to the Phase I ESA, on-site landscaping appeared to be in good condition, and signs of unnatural or chemically induced stress were not observed. Minor surface staining was observed on the parking areas, likely as a result of leaking vehicles. Pits, ponds, lagoons, swales, or surface impoundments potentially containing hazardous materials were not observed on the site. Particularly, evidence of prior wastewater lagoons observed in prior aerial photographs, was not readily visible during the site reconnaissance.

[7] ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* 2013.

Various features were observed on-site at the time of the site reconnaissance. An approximate 50-foot vertical strip of land with two fence lines was observed along the northeastern border of the site. An approximately 12-inch diameter water well set in concrete was observed in the strip approximately 450 feet south of Sheldon Road. The former dairy complex was observed near the northwestern corner of the subject property. The dairy complex area is generally topographically higher than the creek to the east, and open pastureland to the south and west. An older water well on a concrete pad was observed at the southwest corner of the dwelling. Various signs of recent construction (e.g., equipment, material storage, trenches/pits, etc.) were observed around the structures. A concrete vault with fluid (possible septic tank) was observed just north of the dwelling. Another excavation was observed north of the existing driveway. According to the Sacramento County Environmental Management Department (EMD), at least seven wells and one septic system are located on-site.[8]

Two anomalous metal structures are located east of the shed/garage, across the existing dirt driveway. The structures appeared to have a metal bottom with possible access to subsurface soils beneath.

Various structures associated with the former dairy farm, including concrete pads, were observed southeast and west of the buildings. The remnants of prior barn and other dairy structures included a large western concrete pad, which was formerly used for the milking corral, was covered with crushed asphalt. The asphalt significantly limited the observations in this area of the property. Remnants of metal fences and concrete pads from other prior barn structures were observed; however, due to demolition debris and subsequent vegetation growth, it was difficult to discern subsurface features, if any, associated with the former structures. A large metal dumpster was observed onsite which contained construction debris.

A gated area was observed along the western border. A large mound of dirt approximately 240 feet long by 40 feet wide and up to 10 feet tall was observed on the northwest border, adjacent to Waterman Road. An area of unvegetated, crushed asphalt adjoins the mound of dirt.

Significant staining or spillage in material storage areas, hazardous waste generation, storage, or improper hazardous waste disposal, or underground storage tanks (USTs) were not observed as part of the site reconnaissance.

Potential On-Site Recognized Environmental Conditions

Based on the Phase I ESA conducted for the Project, the following includes a discussion of potential RECs within the project area.

Previous Dairy Farm/Agricultural Use

As discussed above, the site has been subject to previous use as a dairy farm dating back to at least the mid-1970s. Records reviewed as part of the Phase I ESA suggest that wastewater from the dairy operations was directed to on-site holding ponds or lagoons, located south of former barn structures near the west side of Laguna Creek. Dairy operations were associated with significant regulatory non-compliance regarding wastewater management, with documented overflows from the holding ponds or lagoons into Laguna Creek. As a result, the sediment and soil near the lagoons/ponds may contain residual impacts from the dairy farm's wastewater. Based on the previous use of the site, significant herbicide and pesticide impacts are not

[8] County of Sacramento Department of Environmental Management. *Summer Villas Special Planning Area (SPA) Environmental Management Department (EMD) Project Comments*. July 3, 2025.

anticipated. However, the potential exists for methane gas generation associated with residual organic material in shallow soils. Based on the history of significant regulatory non-compliance with wastewater handling and the overflow of the on-site holding ponds or lagoons into Laguna Creek, the Phase I ESA determined that the residual solids and associated organics associated with the former dairy operations constitute a REC as defined by the applicable standard.

Stockpiled Soils/Asphalt Materials

A large mound of dirt approximately 240 feet long by 40 feet wide and up to 10 feet tall was observed on the site, near the northwest border (proximal to Waterman Road). An area of unvegetated, crushed asphalt adjoins the mound of dirt.

An addendum to the Phase I ESA was completed by PEI to further assess several soil piles located on the site. PEI determined that the soil piles identified at the western border of Waterman Road in the Phase I ESA are associated with the construction of a traffic circle and road widening at the intersection of Waterman Road and Sheldon Road, which began in 2016. According to the Phase I ESA Addendum, hazardous materials associated with the soil from the construction efforts are not anticipated.

In addition, as part of the Phase I ESA Addendum, PEI analyzed additional soil piles located in the northeastern and western portions of the site through the completion of 22 trenches/excavations (see Figure 4.6-1). Twelve trenches were completed on soil piles in the northeastern portion of the property and ten trenches were completed on the western portion of the property (see Figure 4.6-2 and Figure 4.6-3). Contents of the soil piles were generally absent of any debris with the exception of the two drums and some irrigation equipment debris uncovered in the western soil piles. A soil pile near Trench 21 on the south border of the southwestern corner, contained visual evidence of debris including a brick, concrete, and the edge of two rusted 55-gallon drums. Visually, the drums appeared to be filled with soil, and significant vapors were not detected in the vicinity. With the exception of Trench 21 in the western portion of the property, significant debris, staining, odor, or volatile components were not detected during the exploratory trenching in the 22 completed trenches. Trench 21 contained debris that included metal, concrete and gravel which was excavated to a depth of approximately five feet. Based on the material removed from the excavation, the materials appear consistent with materials from an irrigation/watering station associated with previous dairy farming. Upon removal of the debris, significant staining, odor, or volatile component impacts were not detected during excavation. PEI field-screened the soil for volatile organic compounds (VOCs) from the stockpiles with a photo-ionization detector (PID), and significant PID readings were not noted. PEI concluded that exploratory excavation efforts did not indicate impacts that would require remediation if encountered during construction activities, nor did PEI encounter contaminated soils/materials that would require a soil management plan (SMP). Therefore, evidence of significant hazardous materials or waste disposal was not observed during the trenching efforts on March 7, 2025.

However, while PEI has determined the origin of the larger soil pile as being generated from the road widening work, the northeastern and western soil piles are undocumented. The soil in the piles may have been generated from on-site activities related to dairy operations, or other on-site activities. While the PID did not detects VOCs in soil vapor/ambient air, hazardous chemicals such as polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs), herbicides, or heavy metals may be present. Many of the aforementioned hazardous chemicals do not typically stain the soil or have noticeable odors typical of petroleum hydrocarbons and VOCs.

Figure 4.6-1
Northeastern and Western Soil Piles



*Figure not OCR compatible.

Figure 4.6-2
Northeastern Soil Pile Trenches

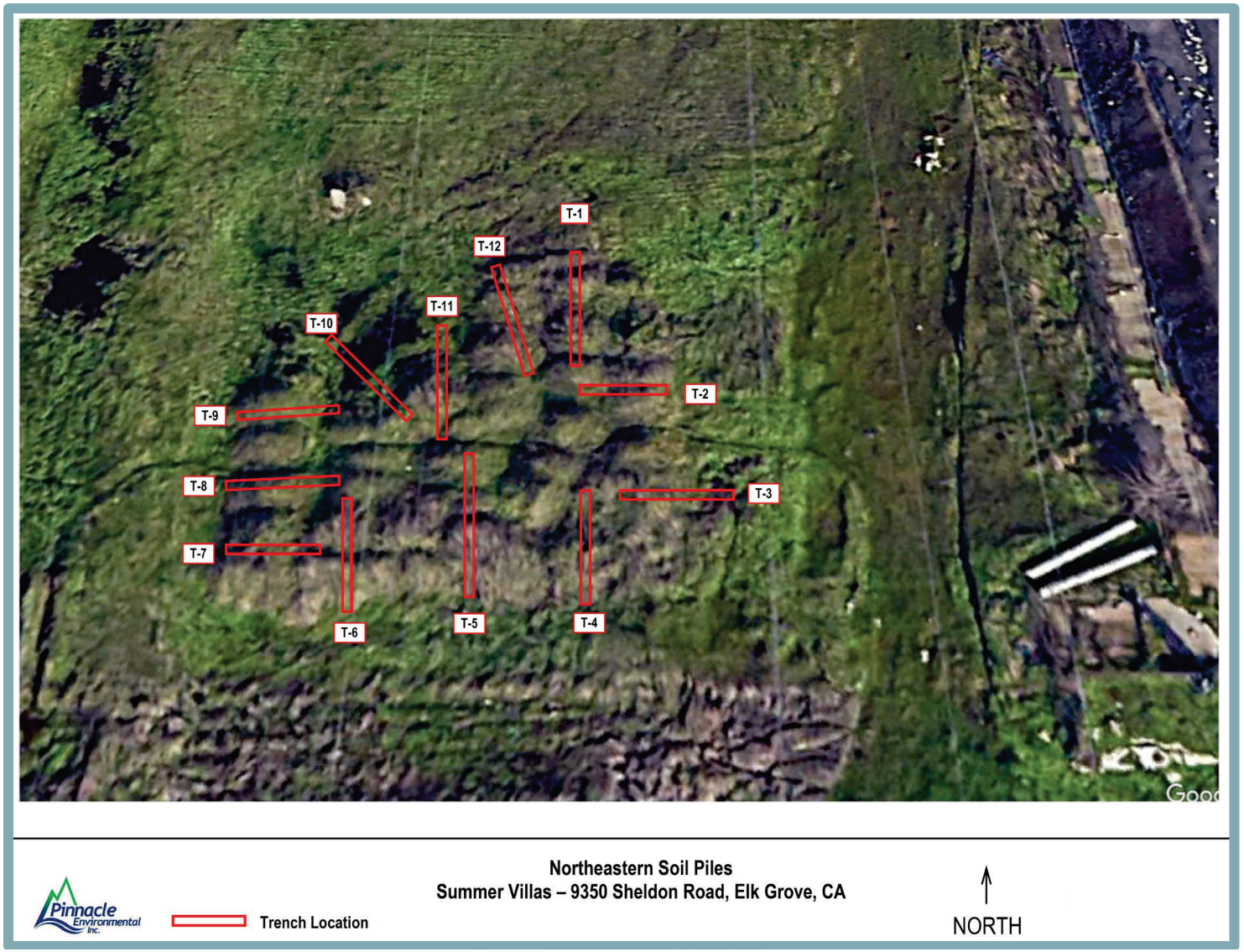


*Figure not OCR compatible.

Figure 4.6-3
Western Soil Pile Trenches

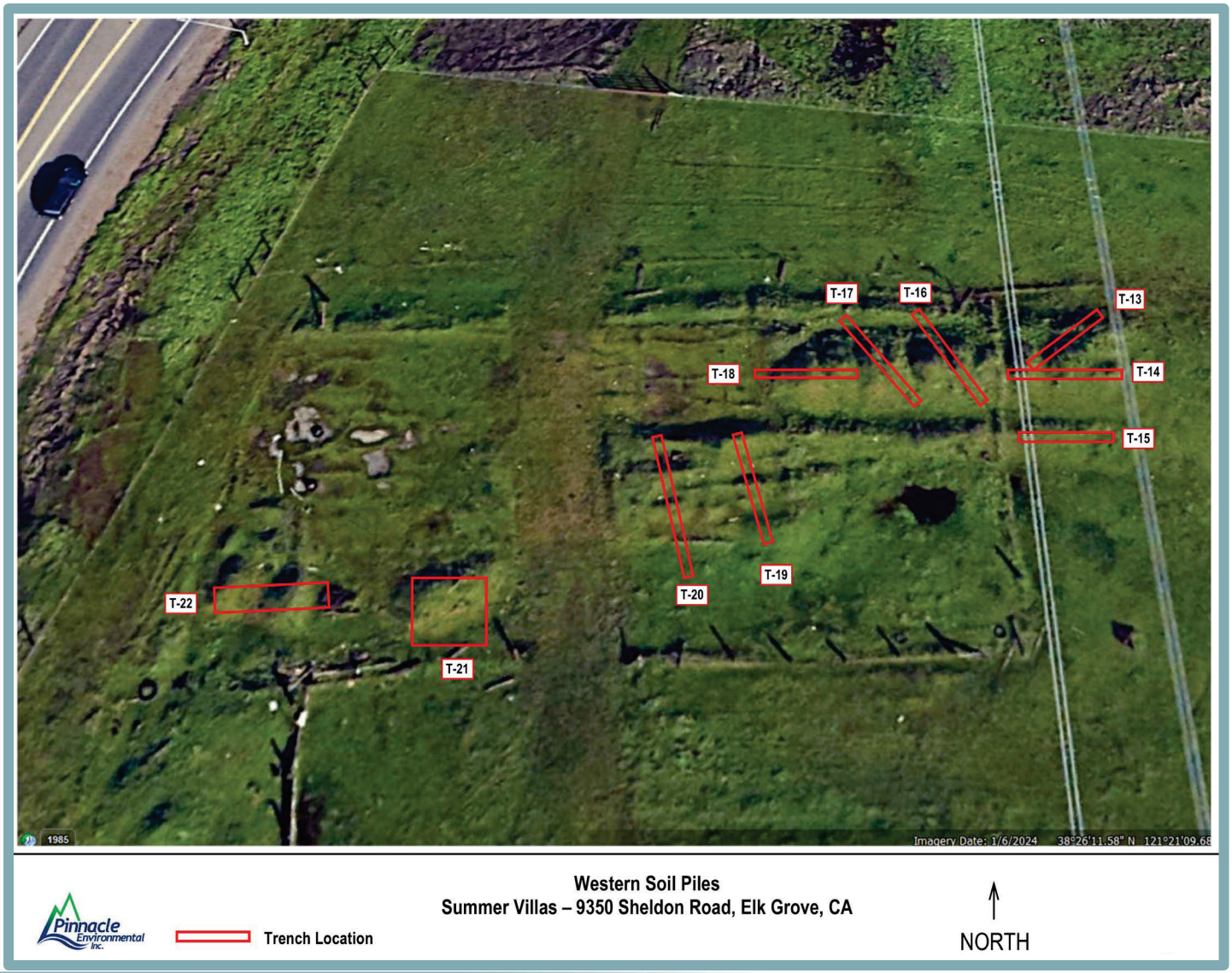


*Figure not OCR compatible.

If future development would avoid the stockpiles, the soil could remain in place; however, if the soil is to be disturbed during future development, the soil would need to be chemically analyzed by an accredited laboratory to determine the appropriate method of removal and disposal. Given the presence of the drums and the undocumented history of the origin of the soil piles, the presence of hazardous chemicals in the soil such as OCPs, PCBs, metals, etc., cannot be ruled out. Thus, the peer review conducted for the Phase I ESA and the Phase I ESA Addendum identified the stockpiled soils as a potential issue of concern.[9]

Wells and Septic Tank

An older water well was located at the southwest corner of the on-site single-unit residence, while another older well was observed near the eastern border, closer to Sheldon Road. A newer, fenced City water well used for irrigation is located near the Sheldon Road/Waterman Road intersection. According to the Sacramento County EMD, at least seven permitted wells and one septic system are located on-site. The EMD requires that public water and sewer services shall be provided, and individual wells and septic systems would not be permitted by EMD.

In addition, two anomalous metal structures appear to have a metal bottom with possible access to subsurface soils beneath. The use of the metal features is unknown. According to the Phase I ESA, if the structures are discovered to be a conduit to the subsurface (e.g., dry well), future assessment would be prudent. Furthermore, a concrete vault with fluid (possible septic tank) was observed just north of one of the buildings. According to the Phase I ESA, when used for routine sewage, septic systems are unlikely to significantly impact a property.

Other Potential On-Site Issues of Concern

The following additional potential environmental concerns were identified for the site.

Lead-Based Paint And Materials

Lead is a highly toxic material that may cause a range of serious illnesses, and in some cases death. Lead was most commonly used in paint. In 1978, the Consumer Product Safety Commission banned the use of lead as an additive to paint; however, lead-based paints (LBPs) could be present in structures built prior to 1970. Typically, human exposure to lead from older vintage paint could occur during renovation, maintenance, or demolition work. Based upon the age of the on-site buildings (circa 1950s), the Phase I ESA determined that LBPs may have been used within the existing buildings. Additionally, based upon the age of the on-site buildings and construction standards prior to 1978, the interior plumbing systems of the existing buildings may contain lead. Thus, the Phase I ESA identified LBP and lead materials as a potential issue of concern.

PCB-Containing Equipment

Three pole-mounted electrical transformers were observed on the site. However, the transformers appeared to be in good condition. Any visible signs of damage or evidence of past leakage were not observed, and the transformers appeared to be owned and maintained by the local utility provider. Given the construction date of the existing on-site structures and the apparent age of the transformers (pre-1977), the transformers may have a potential to contain PCBs. However, the responsibility for the maintenance, repair, or replacement of the transformers lies with the

[9] Trevor Hartwell, PG, Senior Geologist, Geocon Consultants, Inc. *Personal communication [email] with Angela DaRosa, Division Manager/Air Quality Specialist, Raney Planning and Management, Inc.* March 14, 2025.

local utility provider. As such, the Phase I ESA concluded that further investigation regarding the on-site transformers is not warranted.

In addition, based upon the age of existing on-site structures (pre-1977), the Phase I ESA concluded that potential ballasts inside fluorescent light fixtures may contain PCBs. However, during the site reconnaissance, evidence of any other equipment likely containing PCB-contaminated fluid (e.g., interior electric transformers, hydraulic elevators, hydraulic hoists/lifts, hydraulic loading dock ramps, other fluid containing equipment, etc.) was not observed.

Asbestos-Containing Materials

Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be "fibrous" and through processing can be separated into smaller and smaller fibers. The fibers are strong, durable, chemical resistant, and resistant to heat and fire. Because of its fiber strength and heat resistance, asbestos has been used in a variety of building construction materials for insulation and as a fire retardant. Exposure to asbestos increases the risk of developing lung disease, such as lung cancer, mesothelioma, and asbestosis. For buildings constructed prior to 1980, the Code of Federal Regulations (CFR) (Title 29, Section 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and related materials) and surface materials must be designated as "presumed asbestos-containing material" unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. Given the construction date of the existing on-site structures and the apparent age of certain materials (pre-1985), asbestos-containing materials (ACMs) may have been used during the construction or subsequent renovation of the structures. Thus, the Phase I ESA identified ACMs as a potential issue of concern.

Former Aboveground Storage Tanks (ASTs)

Visual or physical indicators of current or former hazardous material ASTs were not observed at the site during the site reconnaissance. However, photographs observed in the Regional Water Quality Control Board (RWQCB) file from the 1980s indicated the presence of ASTs of unknown use. Residual fuel (e.g., diesel, heating oil, gasoline) could potentially be present as a result of historical surface spills. While staining or evidence of any surface spills were not observed during the site reconnaissance, petroleum odors and/or staining may be observed during grading and/or excavation activities. Given the lack of information regarding the use of prior ASTs, the Phase I ESA identified ASTs as a potential issue of concern.

Vapor Encroachment Conditions

Exposure to vapor intruding from ground sources of total petroleum hydrocarbons (TPHs) and VOCs can lead to detrimental effects on human health. As part of the Phase I ESA, a Vapor Encroachment Screening (VES) was performed on the site. Sites of potential risk were not identified during completion of the VES.

Radon

According to the U.S. Environmental Protection Agency (USEPA), radon is found in outdoor air and in the indoor air of buildings of all kinds. Exposure to radon can cause lung cancer in smokers and non-smokers.[7] Radon is the number one cause of lung cancer among non-smokers, according to USEPA estimates, and the second-leading cause, overall, of lung cancer. The

[7] U.S. Environmental Protection Agency. *Health Risk of Radon*. Available at: https://www.epa.gov/radon/health-risk-radon. Accessed March 2025.

USEPA has developed the EPA Map of Radon Zones to assist organizations in implementing radon-resistant building codes. The map assigns each county in the U.S. to one of three zones based on radon potential. The USEPA uses a continuous exposure level of 4.0 picocuries per liter (pCi/L) as an action level at which additional action is recommended. According to the Phase I ESA, the general area of the site has a predicted average indoor screening level of less than the EPA guideline action level of 4.0 (pCi/L) (EPA Radon Zone Level of 2 or 3). Therefore, based upon the reported subsurface characteristics of the area, the site exhibits a low potential for high-level radon exposure.

Nearby Recognized Environmental Conditions

A review of sites located near the site that are listed in federal, State, and/or local databases of hazardous materials sites was completed as part of the Phase I ESA. The closest site with a reported release (Pleasant Grove Hi/Katherine Aliani Mid at the intersection of Bond Road and Bradshaw Road, noted as a certified ENVIROSTOR site as of November 7, 2003) is located 4,425 feet to the southeast of the site. The case is noted with soil impact only with lead and PCBs. Another ENVIROSTOR site (Franklin Meadows Elementary school #37 at the intersection of Fire Poppy Drive and Blossom Ranch Drive) is located 3,083 feet to the south-southwest, but is noted with "No Contaminants found." Based upon the distance, status, type of listing and/or down- to cross-gradient location, the above and remaining database listings appear unlikely to have significantly environmentally impacted the site, and, therefore, would not constitute an REC.

For further details regarding the identified facilities located near the site that are listed in federal, State, and/or local databases of hazardous materials sites, please see the Phase I ESA Regulatory Database Search Appendix (attached as Appendix J to this EIR). A listing on the aforementioned databases is not considered to be indicative of a release of a hazardous material or petroleum product at a property.

Off-Site Improvement Areas

As discussed in further detail in Chapter 3, Project Description, of this EIR, development of the Project would trigger the need for off-site roadway improvements. Specifically, the Project would require improvements to the existing roundabouts at the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections. The Sheldon Road/Waterman Road intersection is located adjacent to the site's northwest corner. Under existing conditions, both intersections consist of multi-lane roundabouts that may be approached from the north, south, east, and west, and include a vegetated central island. Additional off-site improvements include the construction of approximately 6,500 linear feet of off-site four- to six-inch diameter force mains in Sheldon Road and Elk Grove Florin Road to support the Project, as well as the extension of water mains to either connect to an existing main in Waterman Road or near Elk Grove Florin Road. The foregoing off-site improvement areas would primarily be within existing disturbed areas and/or within existing roadway rights-of-way (ROW) that have been anticipated for infrastructure improvements. The off-site improvement areas are where known hazardous conditions do not occur. Depending on the chosen alignment of the water line connection, a water main extension along the project's Sheldon Road ROW may be required, which would include a crossing either under Laguna Creek or attached to the existing Sheldon Road Bridge over Laguna Creek.

Nearest Airports

The nearest public use airport to the site is Mather Airport, located approximately 7.4 miles northeast of the site. According to the 2022 Airport Land Use Compatibility Plan (ALUCP) for

Mather Airport, the site is not located within the Airport Influence Area (AIA).[8] The nearest private airstrip is Sky Way Estates Airport CL04, located approximately six miles southeast of the site.

4.6.3 REGULATORY CONTEXT

The following discussion contains a summary of regulatory controls pertaining to hazardous substances, including federal, State, and local laws and ordinances.

Federal Regulations

Federal agencies that regulate hazardous materials include the USEPA, the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). Prior to August 1992, the principal agency at the federal level regulating the generation, transport, and disposal of hazardous waste was the USEPA under the authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992, however, the California DTSC was authorized to implement the State's hazardous waste management program for the USEPA. The USEPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The following federal laws and related regulations govern hazardous materials.

Occupational Safety and Health Act

Congress passed the Occupational and Safety Health Act (29 U.S.C. Section 651 et seq. [1970]) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states. OSHA requires 40 hours of training for hazardous materials operators, as well as an annual eight-hour refresher course, which includes training regarding personal safety, hazardous materials storage and handling, and emergency response.

Comprehensive Environmental Response, Compensation, and Liability Act

The CERCLA (42 U.S.C. Section 9601 et seq. [1980]) provides a federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the USEPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. The USEPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, USEPA obtains private party cleanup through orders, consent decrees, and other small party settlements. The USEPA also recovers costs from financially viable individuals and companies once a response action has been completed. The USEPA is authorized to implement the CERCLA in all 50 states and U.S. territories.

[8] Sacramento Area Council of Governments/Airport Land Use Commission. *Mather Airport Land Use Compatibility Plan* [Figure 1-2]. August 2022.

Superfund Amendments and Reauthorization Act of 1986

The Superfund Amendments and Reauthorization Act (SARA) of 1986, (Title III; Section 305(a)) reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. In addition, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). SARA, Title III provides funding for training in emergency planning, preparedness, mitigation, response, and recovery capabilities associated with hazardous chemicals. Title III of SARA addresses concerns about emergency preparedness for hazardous chemicals, and emphasizes helping communities meet their responsibilities in preparing to handle chemical emergencies and increasing public knowledge and access to information on hazardous chemicals present in their communities.

Resource Conservation and Recovery Act

The RCRA (42 U.S.C. Section 6901 et seq. [1976]) gives USEPA the authority to control hazardous waste from the "cradle-to-grave," which includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for USEPA, more stringent hazardous waste management standards, and a comprehensive UST program. States have the authority to implement individual hazardous waste programs in lieu of the RCRA as long as the state program is as stringent as federal RCRA requirements and is approved by the USEPA.

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 (15 U.S.C. Section 2601 et seq. [1976]) provides USEPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including PCBs, asbestos, radon, and LBP.

U.S. Department of Transportation

Transportation of hazardous materials is regulated by the DOT's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 CFR Parts 100–185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive required training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the



carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

Asbestos Hazard Emergency Response Act

The 1986 Asbestos Hazard Emergency Response Act (AHERA) was signed into law as Title II of the TSCA, requiring the Asbestos Model Accreditation Plan (MAP) for accrediting individuals conducting asbestos inspection and corrective-action activities in schools and public and commercial buildings. The MAP provides guidance on the minimum training requirements for accrediting asbestos professionals such as, procedural entry, exit, sampling, and monitoring, safety hazards, and relevant federal, state, and local regulatory standards.

Lead-based Paint Regulations

Lead pollutants are regulated by several laws administered by the USEPA, including the TSCA, the Residential Lead-Based Paint Hazard Reduction Act of 1992, the Clean Air Act (CAA), the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), the RCRA, and CERCLA. The aforementioned regulations address lead in paint, dust and soil, lead in air and water, and the disposal of lead wastes. Regulations specific to LBP include, but are not limited to, the Lead Renovation Repair and Painting Program Rule, the Lead Abatement Program, the residential Lead-based Paint Disclosure Program, and Residential Hazards of Lead in Paint, Dust and Soil. Such regulations require risk assessments, inspections, and work practices that work to minimize exposure to lead hazards.

State Regulations

The CalEPA and the State Water Resource Control Board (SWRCB) establish rules governing the use of hazardous materials and the management of hazardous waste. Within CalEPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL). The following discussion contains the applicable State laws.

Regional Water Quality Control Board

The CalEPA and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials in California. Within CalEPA, DTSC has primary regulatory responsibility for hazardous waste management. Enforcement of regulations can be delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law. Along with the DTSC, the RWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. The RWQCB's regulations are contained in Title 27 of the California Code of Regulations (CCR). The DTSC, RWQCB, and/or a local agency typically oversees investigation and cleanup of contaminated sites.

Department of Toxic Substances Control

The DTSC was established to protect California against threats to public health and degradation to the environment and to restore properties degraded by past environmental contamination. Through statutory mandates, DTSC cleans up existing contamination, regulates management of hazardous wastes, and prevents pollution by working with businesses to reduce hazardous waste and use of toxic materials in California. DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. In addition, DTSC's site Mitigation and

Brownfields Reuse Program oversees the cleanup of State Superfund sites. State Superfund sites are additionally known as Annual Workplan sites, listed sites, or Cortese List sites. Superfund sites demonstrate evidence of a hazardous substance release or releases that could pose a significant threat to public health and/or the environment. DTSC requires responsible parties to cleanup such sites. When responsible parties cannot be found or where they do not take proper and timely action, DTSC may use State funds to undertake the cleanup.

Cortese List

Pursuant to Government Code Section 65962.5(a), the DTSC shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
2. All land designated as hazardous waste property or border zone property pursuant to former Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
3. All information received by the DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
4. All sites listed pursuant to Section 25356 of the Health and Safety Code.

California Code of Regulations

Hazardous waste is characterized and defined in CCR, Title 22, Sections 66261.20-24. Soils that meet the descriptions of the characteristics of hazardous waste defined in Sections 66261.20-24 and contain contaminants above regulatory screening levels are considered hazardous waste and must be handled and disposed of as such. The CCR includes the California Health and Safety Code.

California Health and Safety Code

The handling and storage of hazardous materials is regulated at the federal level by the USEPA under CERCLA, as amended by the SARA. Under SARA Title III, a nationwide emergency planning and response program was established that imposed reporting requirements for businesses which store, handle, or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. SARA Title III required each state to implement a comprehensive system to inform federal authorities, local agencies, and the public when a significant quantity of hazardous, acutely toxic substances are stored or handled at a facility.

Ammonia is an example of an acutely hazardous material (AHM) that is regulated by the California OES under the California Accidental Release Program (CalARP), the USEPA under the Risk Management Program (40 CFR 68), and the OSHA under the Process Safety Management Program (OSHA 1910.119). The CalARP and Risk Management Program require that all facilities that store, handle, or use AHMs above a minimum quantity, known as the threshold planning quantity, are required to develop a plan and prepare supporting documentation that summarizes the facility's potential risk to the local community and identifies safety measures to reduce potential risks to the public.

The HWCL, Chapter 6.5 of the California Health and Safety Code, is administered by the CalEPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the USEPA approves the California program, both the State and federal laws apply in California. The

HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

In California, the underground storage of hazardous materials is regulated by Chapter 6.7 of the California Health and Safety Code, per the Underground Storage of Hazardous Substances Act. Under Section 25280, the USTs used for the storage of substances hazardous to public health and safety and to the environment are stored prior to use or disposal in thousands of underground locations in the State. Under section 25280,the USTs used for storage are potential sources of contamination of the ground and underlying aquifers, and may pose other dangers to public health and the environment. Chapter 6.7 establishes orderly procedures that will ensure that newly constructed USTs meet appropriate standards and that existing tanks be properly maintained, inspected, tested, and upgraded so that the health, property, and resources of the people of the State will be protected.

California Vehicle Code Section 31303

The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations. California Vehicle Code Section 31303 regulates the transport of hazardous materials.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the Governor's OES, which coordinates the responses of other agencies, including CalEPA, CHP, California Department of Fish and Wildlife (CDFW), and the Central Valley RWQCB.

Unified Hazardous Materials Management Regulatory Program

On January 1, 1996, CalEPA adopted implementing regulations and implemented a unified hazardous waste and hazardous materials management regulatory program (Unified Program), to consolidate the administration of specified statutory requirements for the regulation of hazardous wastes and materials. The Unified Program is implemented at the local level by government agencies certified by the Secretary of CalEPA. The Certified Unified Program Agency (CUPA) is responsible for implementation of the Unified Program. CUPA is certified and responsible for oversight of the following consolidated programs: Hazardous Materials Release Response Plans and Inventories (Business Plans); California Accidental Release Program; Underground Storage Tank Program; Aboveground Petroleum Storage Act; Hazardous Waste Generator and On-site Hazardous Waste Treatment (tiered permitting) Programs; and California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements.

Local Regulations

Relevant goals and policies from the County of Sacramento and the City of Elk Grove General Plan related to hazards and hazardous materials are discussed below.

Sacramento County

The County of Sacramento OES implements the State's Right-to-Know Ordinance that gives the OES the authority to inventory hazardous materials used by businesses. The County is also in the process of collecting information regarding existing and proposed locations of hazardous material disposal, storage, handling, and transportation facilities.

Additionally, the Sacramento County EMD is responsible for enforcing the State regulations on both the city and county level, governing hazardous waste generators, hazardous waste storage, underground storage tanks (including inspections, enforcement, and removals), and environmental health (including inspections and enforcement). The Sacramento County EMD has been designated as the Sacramento region's CUPA by CalEPA. The Program is housed within Department's Environmental Compliance Division. CUPA Programs are administered throughout the County of Sacramento and its incorporated cities, including the City of Elk Grove.

The Sacramento County EMD also regulates the use, storage, and disposal of hazardous materials in the County and abandonment of wells and septic systems in the County by issuing permits, monitoring regulatory compliance, investigating complaints, and other activities. The Sacramento County EMD reviews technical aspects of hazardous waste site cleanups, and oversees remediation of certain contaminated sites resulting from leaking underground storage tanks. The Sacramento County EMD is also responsible for providing technical assistance to public and private entities that seek to minimize the generation of hazardous waste.

Sacramento County Area Plan

The Sacramento County EMD established the Sacramento County Area Plan (SCAP) as a guideline for hazardous material related accidents or occurrences. The purpose of the SCAP is "to delineate responsibilities and actions by various agencies in Sacramento County required to meet the obligation to protect the health and welfare of the populace, natural resources (environment), and the public and private properties involving hazardous materials." The SCAP is used for making initial decisions at a hazardous materials incident. The SCAP uses Level I, Level II and Level III classifications for hazardous material incidents, which are determined by the following planning basis:

- Level of technical expertise required to abate the incident;
- Extent of Municipal, County, and State Government involved;
- Extent of evacuation of civilians; and
- Extent of injuries and/or deaths.

Sacramento County Local Hazard Mitigation Plan

The multi-jurisdictional Sacramento County Local Hazard Mitigation Plan (LHMP), last updated in 2021,[10] was established 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 that reduce the risk of hazards and protect public health, safety, and welfare. The LHMP focuses on a mitigation strategy for reducing the County's and all participating jurisdictions' risk and vulnerability to hazards. The LHMP was also developed to ensure Sacramento County and participating jurisdictions' continued eligibility for certain

[10] Sacramento County. *Sacramento County Multi-jurisdictional Local Hazard Mitigation Plan Update*. September 2021.

federal disaster assistance: specifically, the FEMA Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation Program (PDM), and the Flood Mitigation Assistance Program (FMA).

City of Elk Grove General Plan

The following goals and policies from the City of Elk Grove General Plan related to hazards and hazardous materials are applicable to the Project:

GOAL ER-1 Minimal Risk from Accidental Release of Hazardous Materials

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 off-site 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 (recreated as Table 4.6-1, below).

Policy ER-1-3 For the purpose of implementing Policy ER-1-1, use the Threshold of Exposure standards shown in Table 8-2 (recreated as Table 4.6-2, below) 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.

Policy ER-1-5 Storage of hazardous materials and waste will be strictly regulated, consistent with State and federal law.

GOAL HTH-1 Healthy Living Options for Residents.

Policy HTH-1-1 Consider proximity to environmental health risks when planning for residential uses.

Table 4.6-1
Acceptable Probability of Reasonably Foreseeable Risks to Individuals by Land Use

Land Use	Risk of Death over 365 Days of Exposure
Agriculture, 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 uses, etc.	1 in one million and less (10^{-6})

Source: City of Elk Grove General Plan, December 2023.

Table 4.6-2
Policy Threshold of Exposure Criteria for Agricultural, Residential, and Nonresidential Land Uses

Land Use	Maximum Policy Threshold of Exposure			
	Over-pressure	Airborne Toxic Substances	Radiant Heat	Shrapnel
Agriculture	3.4 psig[(a)]	**Dose = ERPG-2[(b)] ppm for 60 min** **Exposure time= 60 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)/60 min*** ***Target concentration= 3 ppm chlorine***	Radiant dose= 200 kJ/m^2[(c)] Exposure time= 30 sec ***Target radiant energy = radiant dose/exposure time*** *Target radiant energy= (200 kJ/m^2)/30 sec* *Target radiant energy= 6.67 kW/m^2*	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			
Office/ Commercial	1.0 psig			
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* *Target radiant energy= (200 kJ/m^2)/15 sec* Target radiant energy = 13.34 kW/m^2	
Industrial	3.4 psig	Dose= ERPG-2 ppm for 60 min Exposure time= 15 min *For example: chlorine*		

(Continues on next page)

		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*		

Notes:
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 General Plan, December 2023.

Emergency Operations Plan

The purpose of the City of Elk Grove Emergency Operations Plan (EOP) is to provide the basis for a coordinated response before, during, and after a disaster incident affecting the City. Specifically, the EOP is intended to:

- Facilitate multi-jurisdictional and interagency coordination in emergency operations, particularly between the City of Elk Grove, County of Sacramento, and special districts such as: the Cosumnes Community Services District (CCSD), Elk Grove Water District (EGWD), Elk Grove Unified School District (EGUSD), Sacramento Municipal Utility District (SMUD), Sacramento Area Sewer District (SacSewer), private sector companies, and/or appropriate State and federal agencies;
- Serve as a City plan, a reference document, and, when possible, may be used for pre-emergency planning;
- Be used in coordination with applicable local, State, and federal contingency plans;
- Identify the components of an Emergency Management Organization (EMO) and establish associated protocols required to effectively respond to, manage, and recover from major emergencies and/or disasters;
- Establish the operational concepts and procedures associated with field response to emergencies and EOC activities; and
- Establish the organizational framework of the California Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS) within the City

The plan is divided into several elements that contain general and specific information relating to the City 's emergency management operations, including the basic plan to provide structure and organization of the City's emergency management organization, functional annexes to detail the methods of the City, support documents to focus on operational function and responsibility, and hazard-specific appendices to identify hazard-specific risk areas and evacuation routes.

4.6.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the Project's potential impacts related to hazards and hazardous materials. A discussion of the Project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

In accordance with CEQA Guidelines Appendix G, an impact related to hazards and hazardous materials is considered significant if the Project would result in 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 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 (see Chapter 5, Effects Not Found to be Significant);
- 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 (see Chapter 5, Effects Not Found to be Significant);
- 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 (see Chapter 5, Effects Not Found to be Significant);
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires (see Chapter 5, Effects Not Found to be Significant).

As noted above, impacts related to whether the Project would result in any of the following impacts are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (see Chapter 5, Effects Not Found to be Significant);
- 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 (see Chapter 5, Effects Not Found to be Significant);
- 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 (see Chapter 5, Effects Not Found to be Significant);
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires (see Chapter 5, Effects Not Found to be Significant).

Method of Analysis

The following sections describe the methods of analysis used to determine the presence of RECs for the Phase I ESA prepared for the site by PEI.

Phase I ESA

A Phase I ESA was prepared for the site by PEI (see Appendix G of this EIR). The purpose of the Phase I ESA was to evaluate whether evidence of RECs exists that may have impacted or could potentially impact the site. The Phase I ESA was performed in general accordance with the American Society for Testing and Materials (ASTM) E1527-13 standard. The following tasks were performed as part of the Phase I ESA:

- Historical records such as aerial photographs, Sanborn Fire Insurance maps, historical topographic maps, city directories, and other readily-available historical sources were evaluated, as available, to research the history of the site and vicinity;
- Federal, State, and local environmental databases were reviewed to identify sites that use, store, or have released hazardous materials. The database search was performed by Environmental Data Resources, Inc. (EDR), an environmental database research firm. The EDR database report provides federal and State information intended to meet ASTM guidelines for Phase I ESAs. Regulatory files were reviewed for the identified sites, subject to the limitations of the ASTM guidance document;
- A site reconnaissance of the site was conducted by PEI employees on June 7, 2024; and
- Persons with knowledge of the site were interviewed.

For further details regarding the methodology and results of the Phase I ESA prepared by PEI for the site, please see Appendix G of this EIR.

Phase I ESA Peer Review and Addendum

Geocon conducted a peer review of the Phase I ESA (see Appendix H) and generally agreed with the findings and recommendations presented in the report. However, Geocon found environmental issues that may have been missed in the Phase I ESA, including the source of the on-site soil piles, and recommendations for further assessment of the former on-site ASTs.

Subsequent to the Geocon peer review, PEI prepared a Phase I ESA Addendum (see Appendix I). The Addendum included a field effort and completed oversight of trenching efforts associated with the additional soil stockpiles. As discussed above, PEI directed and observed the completion of 22 exploratory trenches on March 7, 2025, within area of the northeastern and western soil piles. Each trench was visually screened for potential impacts with constituents of concern using visual observations (e.g., evidence of staining or debris), olfactory observations (odor), and qualitative screening of vapor content (e.g., using a PID). Geocon also peer reviewed the Addendum and provided further recommendations related to the on-site soil stockpiles, specifically to test the soils for contamination in order to properly remove and dispose of the soils.

Project-Specific Impacts and Mitigation Measures

The site conditions, as well as conditions at off-site improvement areas, have been compared to the standards of significance presented above in order to determine the Project's impact significance. If significant impacts are identified for the construction and operational phases of the Project, recommended mitigation measures have been included to reduce the identified impacts to less-than-significant levels.

4.6-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Based on the analysis below, the impact is *less than significant*.

A significant hazard to the public or the environment could result from the routine transport, use, or disposal of hazardous materials. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The Project would not be industrial in nature. Operations of the Project, including the proposed 499-unit active adult housing community and open space would not include any activities that would involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. During operations, hazardous material use would be limited to landscaping products such as fertilizer and pesticides, as well as typical commercial and maintenance products (cleaning agents, degreasers, paints, batteries, and motor oil). Proper handling and usage of such materials in accordance with label instructions would ensure that adverse impacts to human health or the environment would not result. Thus, operations of the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Construction activities associated with implementation of the Project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. The Project contractor is required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Pursuant to California Health and Safety Code Section 25510(a), except as provided in subdivision (b),[11] the handler or an employee, authorized representative, agent, or designee of a handler, shall, upon discovery, immediately report any release or threatened release of a hazardous material to the unified program agency (in the case of the Project, the Sacramento County EMD) in accordance with the regulations adopted pursuant to Section 25510(a). The handler or an employee, authorized representative, agent, or designee of the handler shall provide all State, City, or county fire or public health or safety personnel and emergency response personnel with access to the handler's facilities. In the case of the Project, the contractors are required to notify the Sacramento County EMD in the event of an accidental release of a hazardous material, who would then monitor the conditions and recommend appropriate remediation measures.

Based on the above, the Project would not create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous materials, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

[11] Subdivision (a) does not apply to a person engaged in the transportation of a hazardous material on a highway that is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code.

4.6-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

In *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (*CBIA*), the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future users. In those specific instances, it is the impact of the project on the environment – and not the impact of the environment on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (*Id.* at pp. 377-378.). Therefore, where existing hazardous conditions already occur on the site or vicinity, the discussion below focuses on the Project's potential to exacerbate risks associated with such conditions or expose Project construction workers to any existing hazardous conditions.

As presented above in the Existing Environmental Setting section of this chapter, the Phase I ESA identified potential RECs related to the previous dairy farm and significant regulatory non-compliance with wastewater handling and overflow into Laguna Creek, stockpiled soils, groundwater wells, LBP and lead materials, PCBs, ACMs, and former ASTs. The potential RECs identified for the site are discussed in further detail below.

Previous Dairy Farm/Agricultural Use

According to the Phase I ESA, the former dairy operations were associated with significant regulatory non-compliance regarding wastewater management, with documented overflows into Laguna Creek. As a result, the sediment and soil near the lagoons/ponds may contain residual impacts from the dairy farm's wastewater including residual organic solids and potentially methane gas. In addition, although herbicide and pesticide impacts are not anticipated, commonly applied pesticides prior to the 1980s can linger in the soil for many years. Whether environmentally persistent pesticides were applied to the subject site in the past is currently unknown. Therefore, the Phase I ESA recommended that additional assessment should be performed through a Phase II ESA to evaluate residual impacts and shallow soils on-site be tested for residual materials stated above prior to the development of the Project. Thus, a significant impact could occur.

Stockpiled Soils/Asphalt Materials

While hazardous materials, as well as odors, surface staining, stressed vegetation, or other obvious evidence of the presence of hazardous materials, were not observed in association with the on-site stockpiled soils, due to the presence of the drums and the undocumented history of the origin of the soil piles, the presence of hazardous chemicals in the soil such as OCPs, PCBs, metals, etc., cannot be ruled out. As such, without proper removal and disposal of the stockpiled soils prior to any development

in the area of the stockpiles, a significant impact could occur if the soils are determined to be contaminated.

Wells and Septic Tank

As discussed above, at least seven water wells are located on-site, and one possible dry well is located on-site. The Sacramento County EMD requires that the wells be destroyed in accordance with local regulations. Destruction of the wells would be required to be conducted in compliance with the California Department of Water Resources (DWR) Water Well Standards, Bulletins 74-81 and 74-90, as well as the Sacramento County Well Standards. In addition, the Phase I ESA recommended an assessment of the anomalous metal structures to determine if the structures are dry wells.

For the future development, public sewer service would be provided to the site through the construction of an on-site sewer lift station and corresponding off-site sewer force main, which would discharge to an existing SacSewer gravity sewer network with sufficient residual capacity to support the Project. As such, the on-site septic tank would be required to be abandoned in accordance with local, State, and federal regulations, including the Uniform Plumbing Code. Every cesspool or septic tank which has been abandoned or has been discontinued otherwise from further use or to which no waste or soil pipe from a plumbing fixture is connected, shall have the sewage removed, a hole that punctures the bottom of the tank, and be completely filled with sand, gravel, concrete or other approved fill material.[12]

Without compliance with the applicable standards, a significant impact would occur related to well and septic tank abandonment.

Asbestos-Containing Materials and Lead-Based Paint

According to the Phase I ESA, original buildings were located within the site prior to 1937. Residual ACMs and LBP may be present within the areas and piping of former structures. During demolition and ground-disturbing activities associated with the Project, construction workers could come into contact with, and be exposed to, ACMs or LBP materials present in the on-site buildings. Additionally, workers could potentially be exposed to elevated concentrations of lead in the soil in the vicinity of the structures. Collection and disposal of ACMs and lead materials, including LBP, by untrained personnel could cause asbestos and lead dust emissions to be transported off-site, resulting in the release of hazardous material into the environment. Thus, a significant impact could occur.

Aboveground Storage Tanks

The presence of ASTs were observed in photographs received from the Central Valley RWQCB. While staining or evidence of any surface spills were not observed during the site reconnaissance, petroleum odors and/or staining may be observed during grading and/or excavation activities. Thus, a significant impact could occur.

[12] Sacramento County Environmental Management Department. *In-Place Septic Tank Abandonment/Destruction Procedure*. January 2014.

Off-Site Improvement Areas

As discussed above, the development of the Project would trigger the need for off-site roadway improvements to the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabouts, the construction of approximately 6,500 linear feet of off-site four- to six-inch diameter force mains in Sheldon Road and Elk Grove Florin Road, and the extension of water mains to either connect to an existing main in Waterman Road or near Elk Grove Florin Road. One option for extension of the water main would cross Laguna Creek by either boring and jacking the line under Laguna Creek or alternatively, attaching the line to the existing Sheldon Road Bridge.

The off-site improvements would involve ground disturbing activities, which could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, if hazardous materials are present within the improvement areas. Given the majority of the off-site improvement areas are within existing ROW, potential impacts are not anticipated. However, because a final design for the off-site improvements has not occurred, a Phase I ESA has not been prepared for the off-site improvement areas. Therefore, the potential exists for the roadway and water main infrastructure improvements to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

Conclusion

Based on the above, all identified RECs are limited to on-site conditions and thus would not exacerbate any existing hazards for surrounding uses. However, implementation of the Project could create a significant hazard to future workers at the site during construction activities through reasonably foreseeable upset and accident conditions if hazardous materials are located on-site or within the off-site improvement areas. Therefore, the Project would result in a ***significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

4.6-2(a) *For any Tentative Map where disturbance of the area containing the on-site soil stockpiles would not occur, the stockpiles may be retained in place and mitigation is not necessary. For any Tentative Map involving disturbance in the area containing the on-site soil stockpiles, or for any future development that contemplates removal or relocation of the stockpiles, samples of the soil stockpiles shall be obtained for analysis of contaminants of concern and comparison with applicable regulatory screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). If soil contaminants are not found, further action is not required. However, where the soil contaminant concentrations exceed the applicable regulatory screening levels, the impacted soil stockpiles shall be excavated prior to any grading activities in the vicinity and properly disposed of off-site by a licensed professional at a permitted landfill facility to the satisfaction of the City of Elk Grove Community*

Development Department and the Sacramento County Environmental Management Department (EMD).

4.6-2(b) *If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered on-site during construction activities associated with any future Tentative Map, the impacted area(s) shall be isolated from surrounding, non-impacted areas. A State-licensed engineering geologist shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern in accordance with applicable U.S. Environmental Protection Agency (USEPA) Methods and comparison with applicable regulatory screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). The soil sampling analysis shall be submitted for review and approval to the City of Elk Grove Community Development Department. Where the soil contaminant concentrations exceed the applicable regulatory screening levels, the impacted soil shall be excavated and disposed of off-site at a licensed landfill facility to the satisfaction of the Sacramento County Environmental Management Department.*

4.6-2(c) *The Project applicant shall hire a licensed well contractor to obtain a well abandonment permit from the Sacramento County EMD for all on-site wells, and properly abandon the on-site wells prior to approval of any future Tentative Maps, pursuant to Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III), for review and approval by the Sacramento County EMD. In addition, prior to Improvement Plan approval, the Project applicant shall ensure that any on-site septic systems are abandoned in compliance with applicable Sacramento County EMD standards. Verification of abandonment and/or water quality testing shall be ensured by the City of Elk Grove Community Development Department.*

4.6-2(d) *Prior to approval of any future Tentative Maps, a surficial soil sample laboratory analysis shall be conducted on the areas of the site proposed for development as part of a Phase II ESA. Once the soils are collected, the soils shall be tested for organochlorine pesticides (OCPs), lead, and asbestos. If soil contaminates are not found, further action is not required; however, if OCPs, lead, or asbestos is found to be higher than the allowable thresholds, the Phase II ESA shall include the appropriate mitigation including, but not limited to, soil remediation to an acceptable total threshold limit concentration (TTLC) level per applicable State and federal regulations by excavation of the contaminated soil, and subsequent transportation and disposal off-site at an appropriate Class I or Class II facility permitted by DTSC; or by properly capping the contaminated soil, in compliance with DTSC regulations (e.g., placing soils underneath project roadways, etc.). All recommended mitigation measures shall be implemented by the Project applicant, subject to review and approval by the City of Elk Grove Community Development Department.*

4.6-2(e) *Prior to issuance of a demolition permit by the City for any on-site structures, the Project applicant shall provide a site assessment that determines whether any structures to be demolished contain lead-based paint (LBP) or asbestos. If structures do not contain LBP or asbestos, further mitigation is not required; however, if LBP is found, all loose and peeling paint shall be removed and disposed of by a licensed and certified lead paint removal contractor, in accordance with California Air Resources Board recommendations and OSHA requirements. If asbestos is found, all construction activities shall comply with all requirements and regulations promulgated through the Sacramento Metropolitan Air Quality Management District (SMAQMD) Rule 902. The demolition contractor shall be informed that all paint on the buildings shall be considered as containing lead and/or asbestos. The contractor shall follow all work practice standards set forth in the Asbestos National Emission Standards for Hazardous Air Pollutants (Asbestos NESHAP, 40 CFR, Part 61, Subpart M) regulations, as well as Section V, Chapter 3 of the OSHA Technical Manual. Work practice standards generally include appropriate precautions to protect construction workers and the surrounding community, and appropriate disposal methods for construction waste containing lead paint or asbestos in accordance with federal, State, and local regulations subject to approval by the City Engineer.*

4.6-2(f) *Prior to approval of the first Tentative Map associated with the Project, a Phase I ESA shall be prepared for the off-site improvement areas and submitted to the City for review and approval. The Phase I ESA shall be prepared by a licensed contractor with the purpose of observing and assessing the conditions encountered at the proposed roadway and utility infrastructure improvement areas and providing conclusions and recommendations relative to any hazardous conditions or materials identified on-site. All recommendations set forth in the Phase I ESA shall be required as a condition of approval on the Tentative Map and appropriately incorporated into the off-site improvement areas of the Project, subject to review and approval by the City of Elk Grove Community Development Department. If the Phase I ESA identifies a Recognized Environmental Condition (REC) requiring a Phase II ESA, a Phase II ESA shall be prepared and submitted to the City of Elk Grove Community Development Department for review and approval to confirm or rule out the presence of potential hazardous substances associated with the identified REC. If the Phase II ESA does not identify the presence of hazardous substances, further mitigation is not necessary. If the Phase II ESA does identify the presence of hazardous substances, the Phase II ESA shall include the appropriate means of remediation sufficient to reduce associated risks to an acceptable level pursuant to applicable City, State, and federal regulations. Remediation could include, but would not be limited to, excavation of contaminated soil and subsequent transportation and disposal off-site or properly capping contaminated soil. All recommendations set forth in the Phase II ESA shall be required as a condition of approval on the Tentative Map and implemented by the Project applicant, subject to review and*

approval by the City of Elk Grove Community Development Department.

4.6-3 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Based on the analysis below, the impact would be *less than significant.*

As noted in the City's General Plan EIR, Elk Grove participates in the Multi-jurisdictional Sacramento County LHMP, the purpose of which 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. In addition to participating in the County's LHMP, the City of Elk Grove maintains an Emergency Operations Plan (EOP) that 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.

Currently, site access is provided from an existing driveway from Sheldon Road. Following Project buildout, access to the site would be provided by way of four newly constructed streets with gated entries, which would extend eastward into the site from Waterman Road and south into the site from Sheldon Road. The proposed street system would follow a modified grid pattern with internal streets. The minimum face of curb return radius would be designed to allow fire truck turn movements and to accommodate emergency vehicle access. During Project operation, implementation of County emergency response plans would not be impaired and emergency access throughout the site would be provided by internal circulation. During Project construction, temporary lane closures on Waterman Road and Sheldon Road may be required; however, any temporary lane closures would be coordinated with County emergency services and complete closure of the roadway is not anticipated.

Based on the above information, the Project, as designed, would not interfere with or impair implementation of an adopted emergency response plan or emergency evacuation plan. Therefore, the Project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. For more details regarding the cumulative setting, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.6-4 Cumulative exposure to potential hazards, including wildfire, and increases in the transport, storage, and use of hazardous materials. Based on the analysis below, the cumulative impact is *less than significant*.

As discussed, Project-specific impacts associated with hazardous materials related to implementation of the Project were found to be less than significant, with incorporation of mitigation. Hazardous materials and other public health and safety issues are generally site-specific and/or project-specific, and would not be significantly affected by other development within the Project area. Combined or additive cumulative impacts from multiple related or reasonably proximate projects would not occur, as each project has its own localized hazards-related impacts addressed by site-specific mitigation, and each project would be subject to the same federal, State, and local hazardous materials management requirements as the Project, which would minimize potential risks associated with increased hazardous materials use in the community. Therefore, cumulative impacts associated with hazardous materials transport, storage, and use associated with implementation of past, present, and reasonably foreseeable future projects, as well as the Project, would be ***less than significant***.

Mitigation Measure(s)

None required.

4.7 Hydrology and Water Quality

4.7 HYDROLOGY AND WATER QUALITY

4.7.1 INTRODUCTION

The Hydrology and Water Quality chapter of the EIR describes existing drainage patterns on the site, current stormwater flows and stormwater infrastructure. The chapter also evaluates potential impacts of the Project with respect to increases in impervious surface area and associated stormwater flows, degradation of water quality, and increases in on- and off-site flooding. Information used for this chapter was primarily drawn from the City of Elk Grove General Plan[1] and the associated General Plan EIR.[2]

Issues associated with water supply and availability are addressed in Chapter 4.10, Public Services and Utilities, of this EIR.

4.7.2 EXISTING ENVIRONMENTAL SETTING

The section below describes regional hydrology and the existing drainage patterns within the site, including peak flows, existing water quality, and groundwater conditions.

Regional Hydrology

The Sacramento River watershed covers approximately 27,000 square miles, with 400 miles of riverbed from Lake Shasta to the convergence of the Sacramento-San Joaquin Delta. Laguna Creek, the Cosumnes River, and the Sacramento River are the main surface hydrological features in and near the City.

Surface water resources in the area are part of the Morrison Creek Stream Group drainage basin, which covers 192 square miles and includes the Elder, Elk Grove, Laguna (and tributaries), Morrison, Strawberry, and Whitehouse creeks. 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 City of Elk Grove in Sacramento County. The Cosumnes River floodplain forms the eastern border of the City, and the river is part of the San Joaquin River watershed. Deer Creek is in the eastern portion of the City, parallel to the Cosumnes River. Figure 4.7-1 shows the location of major surface water features in the area.

According to the General Plan EIR, 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 City have also been similarly altered. However, the Cosumnes River remains undammed.

The City's storm drainage system manages drainage from 13 contributing watersheds and 10 major natural creeks. 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.

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1 City of Elk Grove. *General Plan.* Adopted February 2019. Amended December 13, 2023.
2 City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* February 2019.

Figure 4.7-1
Regional Surface Water Resources

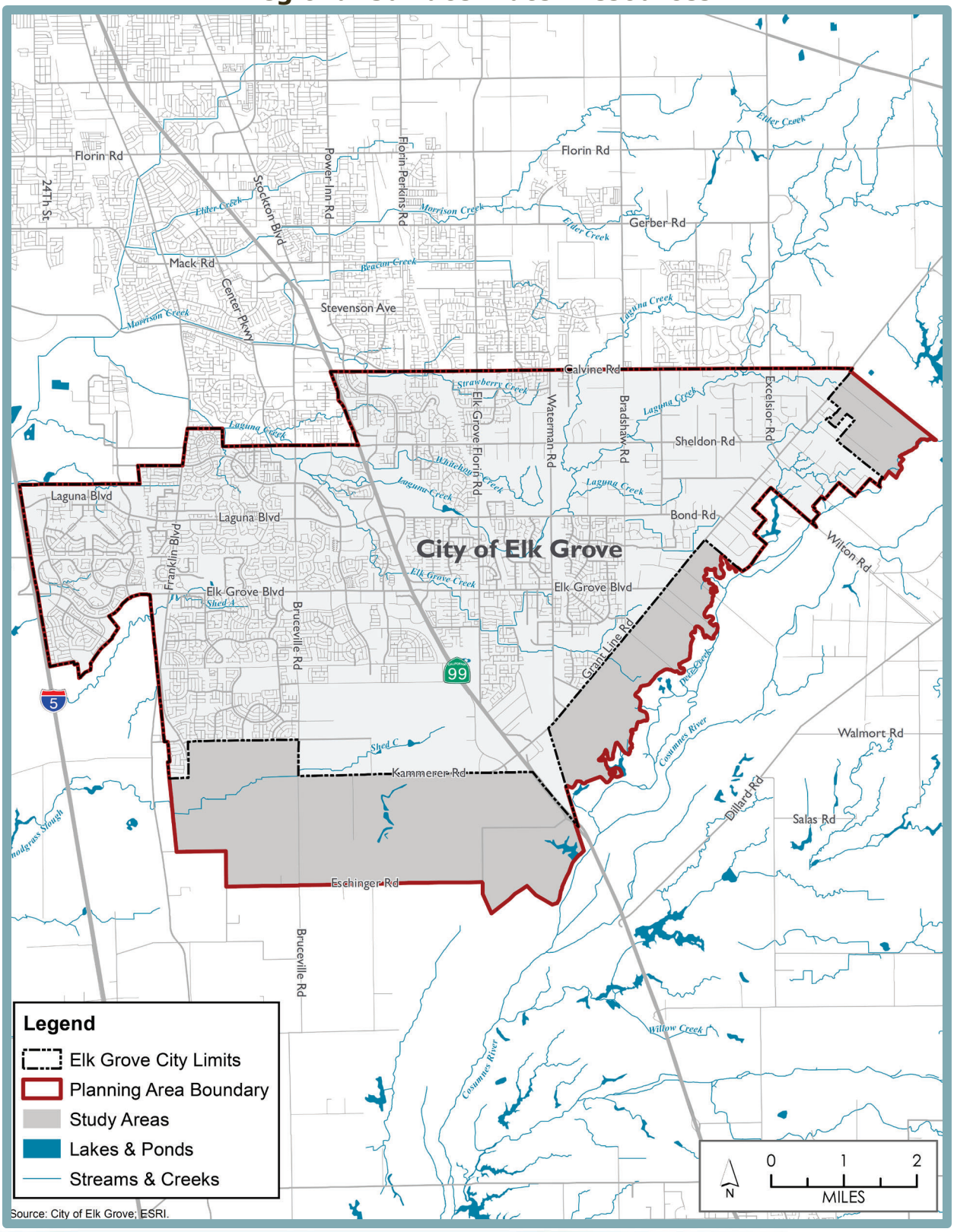


*Figure not OCR compatible.

Site and Surrounding Area Drainage

Currently, the site is developed with a single-unit residence and accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries centrally run from the northern and eastern boundaries of the site to the southern boundary of the site.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) for the site, the site contains areas designated as Zone AE, with Base Flood Elevation (BFE) ranging between 51 and 53 feet above mean sea level (amsl), and Zone X, defined as an area with 0.2 percent annual chance flood hazard.[3,4] Zone AE areas are considered special flood hazard areas (SFHAs) with a one percent chance of being inundated by a flood in any given year. The one percent annual chance flood is also referred to as the 100-year flood; it does not mean that a flood would occur once every 100 years. Based on the site elevations ranging from 50 to 75 feet amsl, on-site flood elevations could range from one to three feet. The FEMA FIRM and site boundaries are shown in Figure 4.7-2. In addition, the FEMA FIRMs for the proposed off-site vehicle circulation improvements are shown in Figure 4.7-3 and Figure 4.7-4.

Water Quality

Activities and/or conditions that have the potential to degrade water quality include, but are not limited to, construction activities and stormwater runoff. Construction activities have the potential to cause erosion and sedimentation associated with ground-disturbing and clearing activities, which could cause destabilized soil to be washed or wind-blown into nearby surface waters. In addition, the use of heavy equipment during future construction, especially during rainfall events, has the potential to cause petroleum products and/or other pollutants to enter nearby drainages.

Water quality degradation from stormwater runoff is primarily the result of runoff carrying pollutants from the land surface (e.g., streets, parking lots, etc.) to the receiving waters (e.g., streams and lakes). Pollutants typically found in urban runoff include facility maintenance and lawn-care/landscaping chemicals (insecticides, herbicides, fungicides and rodenticides), heavy metals (such as copper, zinc and cadmium), oils and greases from automobiles and other mechanical equipment, and nutrients (nitrogen and phosphorus).

Groundwater

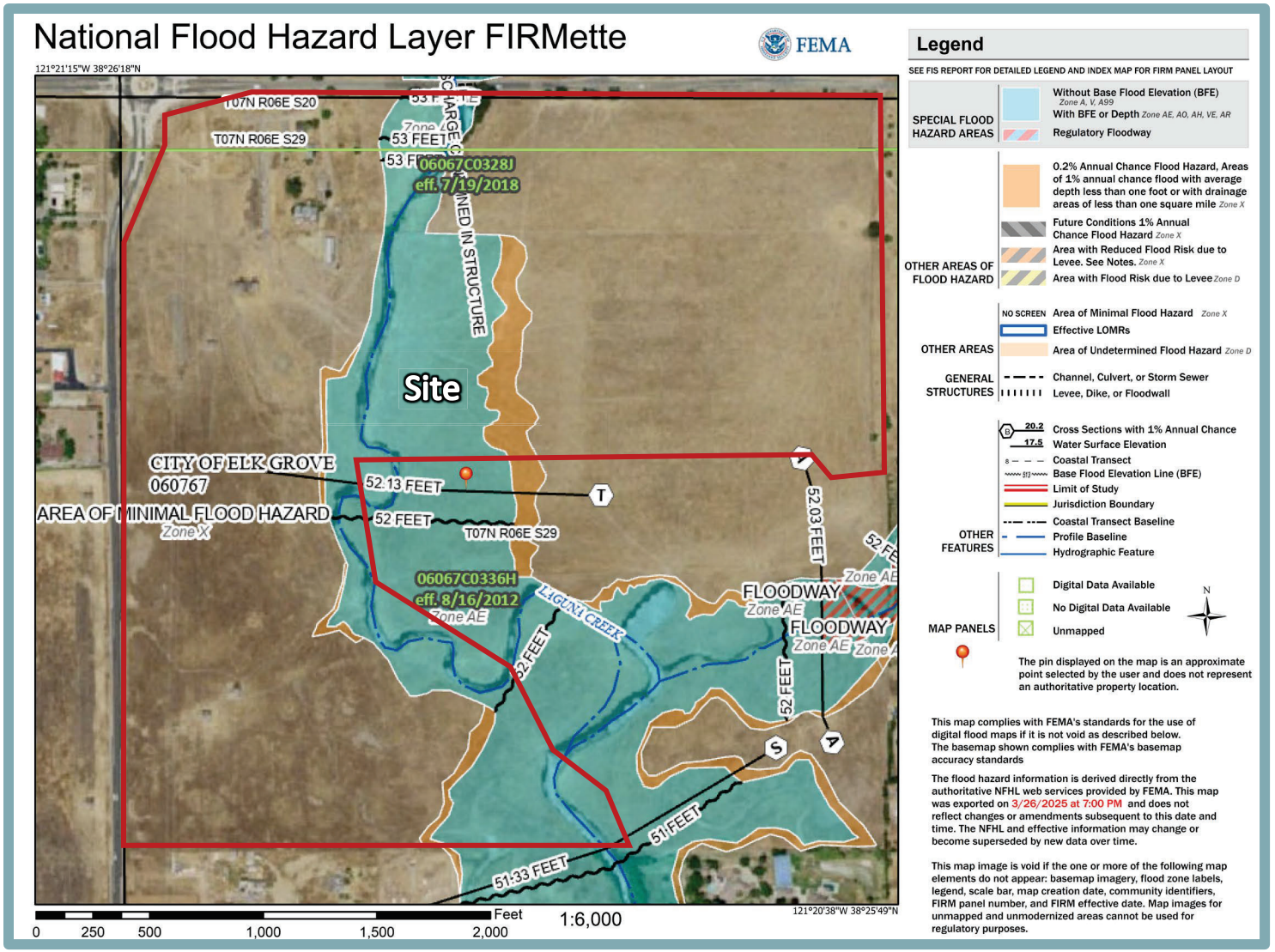
The City of Elk Grove is located within the South American Subbasin, which is bounded on the east by the Sierra Nevada Mountains, on the west by the Sacramento River, on the north by the American River, and on the south by the Cosumnes and Mokelumne rivers. The South American Subbasin also contains three groundwater basins: the North, Central, and South basins. The City of Elk Grove overlies the Central Basin, which also includes areas of Sacramento County and the City of Sacramento. 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). The movement of groundwater between the two aquifers has some potential to occur, usually due to heavy groundwater pumping. Groundwater levels are generally a function of whether the pumping occurs in the shallow aquifer or the deeper aquifer.

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[3] Federal Emergency Management Agency. *Flood Insurance Rate Map, Map Number 06067C0328J.* Effective July 19, 2018.

[4] Federal Emergency Management Agency. *Flood Insurance Rate Map, Map Number 06067C0336H.* Effective August 16, 2012.

Figure 4.7-2
FEMA FIRMs 06067C0328J and 06067C0336H



Note: Red outline denotes the site boundaries.

*Figure not OCR compatible.

Figure 4.7-3
Sheldon Road/Bradshaw Road Intersection Floodplain

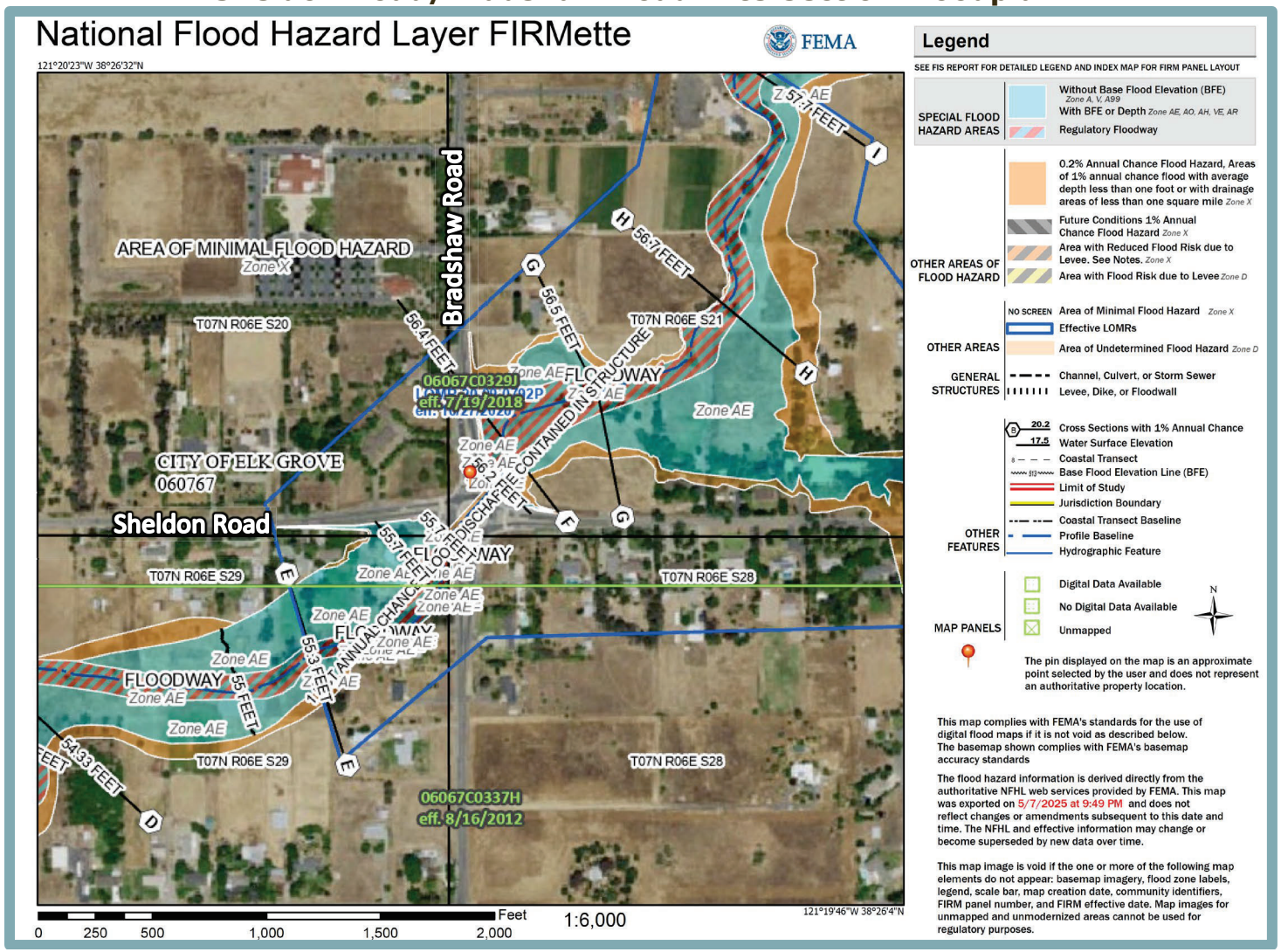
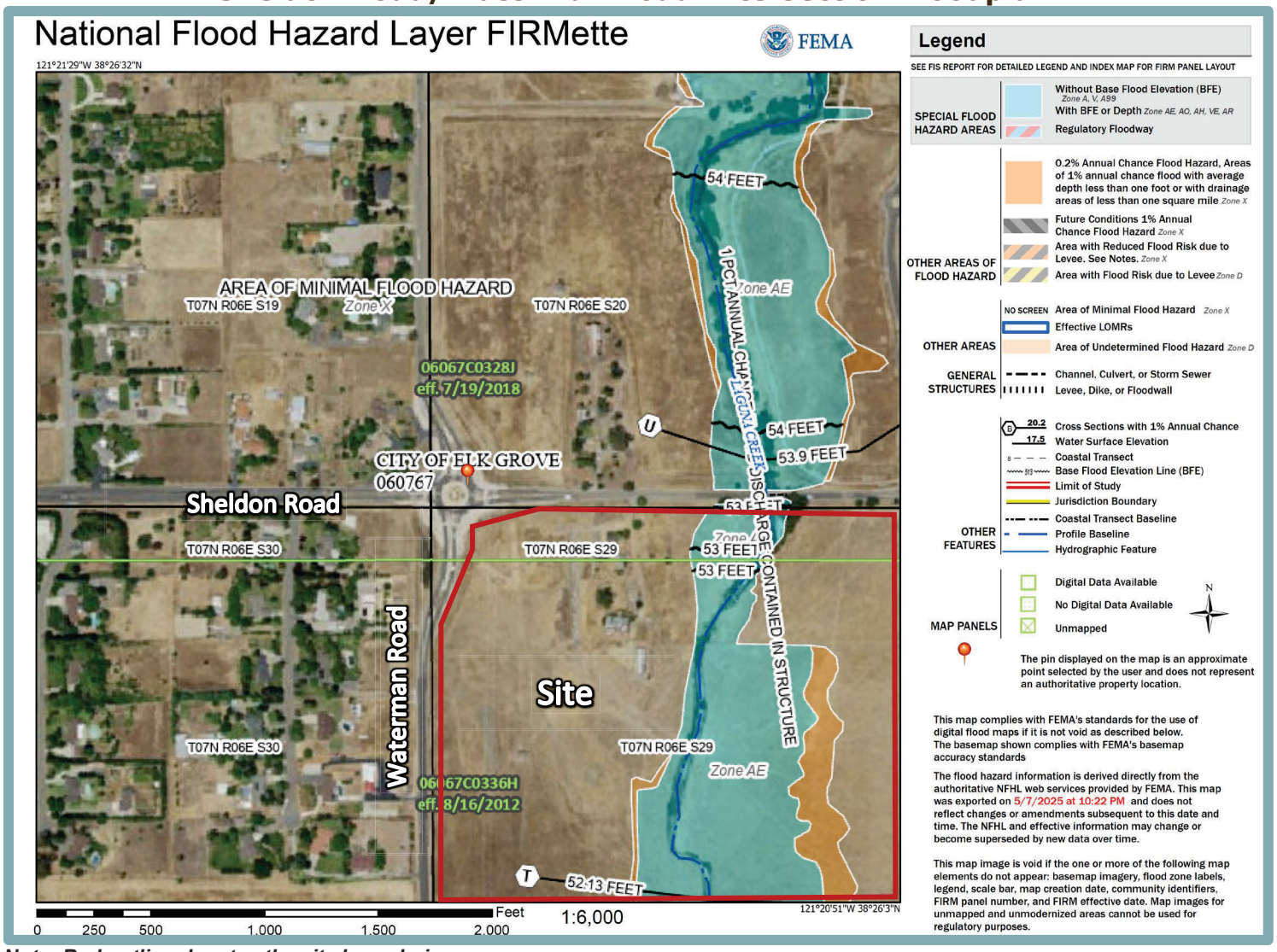


*Figure not OCR compatible.

Figure 4.7-4
Sheldon Road/Waterman Road Intersection Floodplain



Note: Red outline denotes the site boundaries.

*Figure not OCR compatible.

Recharge to the local aquifer system occurs along active river and stream channels where extensive sand and gravel deposits exist, particularly along the American, Cosumnes, and Sacramento River channels. Additional recharge occurs along the eastern boundary of Sacramento County at the transition point from the consolidated rocks of the Sierra Nevada to the alluvial deposited basin sediments. Recharge typically occurs through fractured granitic rock that comprises the Sierra Nevada foothills. Other sources of recharge in the area include deep percolation from applied surface water, precipitation, and small streams.

Groundwater in the portion of the South American Subbasin within which the site is located is managed by the Sacramento Central Groundwater Authority (SCGA).[5] The SCGA was formed in 2006 through a joint powers agreement signed by the cities of Elk Grove, Folsom, Rancho Cordova, and Sacramento, and the County of Sacramento. SCGA was formed for several purposes including maintaining the long-term sustainable yield of the Sacramento Valley subbasins, managing the use of groundwater in the basin, and facilitating the implementation of a conjunctive use program. The SCGA Groundwater Management Plan, which was adopted in 2006, establishes a framework for maintaining sustainable groundwater resources in the South American Subbasin. The framework includes specific goals, objectives, and an action plan to manage the basin. The SCGA Groundwater Management 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 due to new development in the basin. The SCGA Groundwater Management Plan includes a detailed groundwater management implementation plan to comply with the requirements of their basin management objectives. Additionally, SCGA prepares a biennial report to evaluate progress on Groundwater Management Plan implementation and to report on basin conditions.

4.7.3 REGULATORY CONTEXT

The following is a description of federal, State, and local environmental laws and policies that are relevant to the review of hydrology and water quality under the CEQA process.

Federal Regulations

The following section includes federal environmental goals and policies relevant to the CEQA review process pertaining to the hydrology and water quality aspects of the Project.

Federal Emergency Management Agency

The FEMA is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers (USACE) studies. FEMA is also responsible for distributing the FIRMs, which are used in the National Flood Insurance Program (NFIP). The FIRMs identify the locations of special flood hazard areas, including the 100-year floodplains.

FEMA allows the development of non-residential structures in the floodplain; however, construction activities are restricted within flood hazard areas, depending upon the potential for flooding within each area. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations (CFR). These standards are implemented at the State level through construction codes and local ordinances; however, these regulations only apply to residential and non-residential structure improvements. Although roadway construction or modification is not explicitly addressed in the FEMA regulations, the California

[5] North American Subbasin Groundwater Sustainability Agencies. *Water Year 2021 – Annual Report for the North American Subbasin.* March 2022.

Department of Transportation (Caltrans) has also adopted criteria and standards for roadway drainage systems and projects situated within designated floodplains. Standards that apply to floodplain issues are based on federal regulations (Title 23, Part 650 of the CFR). At the State level, roadway design must comply with drainage standards included in Chapters 800-890 of the Caltrans Highway Design Manual. CFR Section 60.3(c)(10) restricts cumulative development from increasing the water surface elevation of the base flood by more than one foot within the floodplain.

Federal Clean Water Act

The National Pollutant Discharge Elimination System (NPDES) permit system was established in the federal Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the U.S. Each NPDES permit contains 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. Section 307 of the CWA describes the factors that the Environmental Protection Agency (EPA) must consider in setting effluent limits for priority pollutants.

Nonpoint sources are diffuse and originate over a wide area rather than from a definable point. Nonpoint pollution often enters receiving water in the form of surface runoff, but is not conveyed by way of pipelines or discrete conveyances. As defined in the federal regulations, such nonpoint sources are generally exempt from federal NPDES permit program requirements. However, two types of nonpoint source discharges are controlled by the NPDES program – nonpoint source discharge caused by general construction activities, and the general quality of stormwater in municipal stormwater systems. The 1987 amendments to the CWA directed the federal EPA to implement the stormwater program in two phases. Phase I addressed discharges from large (population 250,000 or above) and medium (population 100,000 to 250,000) municipalities and certain industrial activities. Phase II addresses all other discharges defined by EPA that are not included in Phase I.

Section 402 of the CWA mandates that certain types of construction activities comply with the requirements of the NPDES stormwater program. The Phase II Rule, issued in 1999, requires that construction activities that disturb land equal to or greater than one acre require permitting under the NPDES program. In California, permitting occurs under the General Permit for Stormwater Discharges Associated with Construction Activity, issued to the State Water Resources Control Board (SWRCB), implemented and enforced by the nine Regional Water Quality Control Boards (RWQCBs).

As of July 1, 2010, all dischargers with projects that include clearing, grading or stockpiling activities expected to disturb one or more acres of soil are required to obtain compliance under the NPDES Construction General Permit Order 2009-0009-DWQ. The General Permit requires all dischargers, where construction activity disturbs one or more acres, to take the following measures:

1. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to include a site map(s) of existing and proposed building and roadway footprints, drainage patterns and stormwater collection and discharge points, and pre- and post- project topography;
2. Describe types and placement of Best Management Practices (BMPs) in the SWPPP that will be used to protect stormwater quality;

3. Provide a visual and chemical (if non-visible pollutants are expected) monitoring program for implementation upon BMP failure; and
4. Provide a sediment monitoring plan if the area discharges directly to a water body listed on the 303(d) list for sediment.

To obtain coverage, a SWPPP must be submitted to the RWQCB electronically and a copy of the SWPPP must be submitted to the City of Elk Grove. When project construction is completed, the landowner must file a Notice of Termination (NOT).

State Regulations

The following section includes the State regulations relevant to the CEQA review process pertaining to the hydrology and water quality aspects of the Project.

State Water Resources Control Board

The SWRCB and the RWQCBs are responsible for ensuring implementation and compliance with the provisions of the federal CWA and California's Porter-Cologne Water Quality Control Act. The site is situated within the jurisdictional boundaries of the Central Valley RWQCB (CVRWQCB) (Region 5). The CVRWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within their jurisdiction.

Central Valley Regional Water Quality Control Board

As authorized by the Porter-Cologne Water Quality Control Act, the CVRWQCB's primary function is to protect the quality of the waters within its jurisdiction for all beneficial uses. State law defines beneficial uses of California's waters that may be protected against quality degradation to include, but not be limited to: domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

The CVRWQCB implements water quality protection measures by formulating and adopting water quality control plans (referred to as basin plans, as discussed below) for specific groundwater and surface water basins, and by prescribing and enforcing requirements on all agricultural, domestic, and industrial waste discharges. The CVRWQCB oversees many programs to support and provide benefit to water quality, including the following major programs: Agricultural Regulatory; Above-Ground Tanks; Basin Planning; CALFED; Confined Animal Facilities; Landfills and Mining; Non-Point Source; Spills, Leaks, Investigations, and Cleanups (SLIC); Stormwater; Total Maximum Daily Load (TMDL); Underground Storage Tanks (UST), Wastewater Discharges (including the NPDES); Water Quality Certification; and Watershed Management.

The CVRWQCB is responsible for issuing permits for a number of varying activities. Activities subject to the CVRWQCB permitting requirements include stormwater, wastewater, and industrial water discharge, disturbance of wetlands, and dewatering. Permits issued and/or enforced by the CVRWQCB include, but are not limited to, the NPDES Construction General Permit, NPDES Municipal Stormwater Permits, Industrial Stormwater General Permits, Clean Water Act Section 401 and 404 Permits, and Dewatering Permits.

Basin Plans Under the Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act provides for the development and periodic review of water quality control plans (basin plans) that are prepared by the RWQCBs. Basin plans designate beneficial uses of California's major rivers and groundwater basins, and establish water quality

objectives for those waters. Beneficial uses represent the services and qualities of a water body (i.e., the reasons why the water body is considered valuable), while water quality objectives represent the standards necessary to protect and support those beneficial uses. Basin plans are primarily implemented through the NPDES permitting system and by issuing waste discharge regulations to ensure that water quality objectives are met.

Basin plans provide the technical basis for determining waste discharge requirements and taking regulatory enforcement actions if deemed necessary. The site is located within the jurisdiction of the CVRWQCB. A basin plan has been adopted for the Sacramento and San Joaquin River Basin (Basin Plan), which covers all of the Project area.

The Basin Plan sets water quality objectives for the surface waters in its region for the following substances and parameters: ammonia, bacteria, biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, radioactivity, salinity, sediment, settleable material, suspended material, taste and odor, temperature, toxicity, turbidity, and pesticides. For groundwater, water quality objectives applicable to all groundwater have been set for bacteria, chemical constituents, radioactivity, taste, odors, and toxicity.

Senate Bill 5

In 2007, the State of California set the 200-year event as the Urban Level of Flood Protection (ULOP) for the State through a series of laws included in Senate Bill (SB) 5. Along with other related legislation, SB 5 established a mandate for local governments to amend their general plans and zoning codes to be consistent with State law on floodplain management. Specifically, SB 5 requires all cities and counties within the Sacramento-San Joaquin Valley, as defined in California Government Code Sections 65007(h) and (j), to make findings related to an ULOP or the national FEMA standard of flood protection before: (1) entering into a development agreement for any property that is located within a flood hazard zone; (2) approving a discretionary permit or other discretionary entitlement, or a ministerial permit that would result in the construction of a new residence, for a project that is located within a flood hazard zone; or (3) approving a tentative map, or a parcel map for which a tentative map was not required, for any subdivision that is located within a flood hazard zone. The primary purpose of the law is to ensure that appropriate flood protection is provided in urban and urbanizing areas.

A project would be subject to the requirements of SB 5 if the project would meet all of the following five criteria:

1. Located within an urban area that is a developed area, as defined by CFR Title 44, Section 59.1, with 10,000 residents or more, or an urbanizing area that is a developed area or an area outside a developed area that is planned or anticipated to have 10,000 residents or more within the next 10 years.
2. Located within a flood hazard zone that is mapped as either a special hazard area or an area of moderate hazard on FEMA's official (i.e., effective) FIRM for the NFIP.
3. Located within the Sacramento-San Joaquin Valley.
4. Located within an area with a potential flood depth above 3.0 feet, from sources of flooding other than localized conditions that may occur anywhere in a community, such as localized rainfall, water from stormwater and drainage problems, and water from temporary water and wastewater distribution system failure.
5. Located within a watershed with a contributing area of more than 10 square miles.

The Project would meet criteria 1, 3, and 5 above. In addition, pursuant to the FEMA FIRM for the site, the site includes special flood hazard areas (SFHAs) designated as Zone AE with a BFE ranging between 51 to 53 feet, which could be considered to meet criterion 2. As discussed in further detail under Impact 4.7-5 below, future on-site development is anticipated to occur outside of the SFHA limits. However, because detailed development plans are not proposed at this time, assurance that development and improvements, on- and off-site, would not occur within the SFHA cannot be made at this time. Nonetheless, because the on-site elevation ranges from 50 to 75 feet amsl, flood depth at the site would not exceed three feet. Because the Project would not meet criterion 4, the Project would not be subject to the requirements of SB 5. Potential impacts related to development in the on-site floodplain are discussed under Impact 4.7-5 below.

Local Regulations

Relevant goals and policies from the City of Elk Grove General Plan, as well as various other local guidelines and regulations related to hydrology and water quality, are discussed below.

City of Elk Grove General Plan

The following goals and policies from the City of Elk Grove General Plan related to hydrology and water quality are applicable to the Project:

Goal NR-3 A Clean and Adequate Water Supply

- Policy NR-3-1 Ensure that the quality of water resources (e.g., groundwater, surface water) is protected to the extent possible.
- Policy NR-3-3 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.
- Policy NR-3-8 Continue to eliminate water use inefficiencies and maintain ongoing communication with water suppliers to ensure sustainable supply.
- Policy NR-3-9 Reduce the amount of water used by residential and nonresidential uses by requiring compliance with adopted water conservation measures.
- Policy NR-3-10 Promote the use of greywater systems and recycled water for irrigation purposes.
- Policy NR-3-13 Advocate for native and/or drought-tolerant landscaping in public and private projects.

Goal ER-2 Minimal Damage from Flooding and Drainage

- Policy ER-2-1 Oppose the construction of flood management facilities that would alter or reduce flows in the Cosumnes River and support retention of the Cosumnes River floodplain in nonurban uses consistent with location in an area subject to flooding.

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-2-6 Except as otherwise set forth herein, 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. Exceptions for development include non-habitable structures and associated mechanical equipment to serve those structures which may be considered by the City, subject to applicable local, state, and federal regulations. Additional public infrastructure, including but not limited to trails, maintenance facilities, or similar improvements, may also be allowed on a case-by-case basis. Such exceptions must result in no net increase to the water surface elevation adjacent to, downstream, and upstream of the development as determined by the City. 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-2-7 A buildable area outside the 100-year floodplain must be present on every residential lot sufficient to accommodate a residence and associated structures. Fill may be placed to create a buildable area only if approved by the City and in accordance with all other applicable policies and regulations. The use of fill in the 100-year floodplain to create buildable area is strongly discouraged and shall be subject to review to determine potential impacts on wildlife, habitat, and flooding on other parcels.

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, 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 the DWR.

The four potential findings for a development project within the 200-year floodplain, as shown on Figure 8-2, 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-2-11 Vehicular access to the buildable area of all parcels must be at or above the 10-year flood elevation.

Policy ER-2-12 Creation of lots whose access will be inundated by flows resulting from a 10-year or greater storm shall not be allowed. Bridges or similar structures may be used to provide access over creeks or inundated areas, subject to applicable local, State, and federal regulations.

Policy ER-2-13 Discourage the number of crossings over natural creeks to reduce potential flooding and access problems.

Policy ER-2-14 Parcels should not be created where any of the parcel's access or preservation easements, floodplain, marsh or riparian habitat, or other features would leave insufficient land to build and operate structures. This policy shall not apply to open space lots, landscape corridors, or other City-approved use specifically created for dedication to the City or another appropriate entity for habitat protection, flood hazard management, drainage, or wetland maintenance.

Policy ER-2-15 Where necessary due to clear dangers to life or property, the City will support the construction of flood hazard management projects.

Policy ER-2-16 Notwithstanding any other policy, new or modified bridge structures and trails are permitted on land subject to flooding during a 100-year event if such facilities do not cause an increase in the water surface elevation of the 100-year floodplain exceeding one tenth of a foot and there is analysis demonstrating that the physical and/or economic use of upstream and downstream property will not be adversely affected by the increase.

Policy ER-2-17 Require all new 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 shall be properly maintained to ensure their proper operation during storms.

Stormwater Quality Design Manual for the Sacramento Region

The Stormwater Quality Design Manual (SQDM) for the Sacramento Region outlines planning tools and requirements to reduce urban runoff pollution to the maximum extent practicable (MEP)

from development and redevelopment projects. The SQDM is a collaborative effort between the cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova, and Sacramento, as well as Sacramento County. In general, the SQDM is intended to satisfy the regulatory requirements of the foregoing jurisdiction's respective municipal stormwater permits.

The SQDM includes a step-by-step process for fulfilling the manual's requirements; specific siting and design criteria for a range of stormwater quality control measures, including source controls, hydromodification control measures, low impact development measures, and treatment controls; and guidance for the incorporation of Low Impact Development (LID) design elements.

National Pollutant Discharge Elimination System Small Municipal Separate Storm Sewer System General Permit

The NPDES Municipal Stormwater Permitting Program regulates stormwater discharges from separate storm sewer systems. NPDES Municipal Stormwater Permits are issued in two phases. Phase I regulates stormwater discharges from large- and medium-sized municipal separate storm sewer systems (those serving more than 100,000 persons). Most Phase I permits are issued to a group of co-permittees encompassing an entire metropolitan area. Phase II provides coverage for smaller municipalities, including nontraditional small storm sewer systems, which include governmental facilities such as military bases, public campuses, and prison and hospital complexes. The NPDES Municipal Stormwater Permits require the discharger to develop and implement a Stormwater Management Plan/Program with the goal of reducing the discharge of pollutants to the MEP.

The CVRWQCB issued the NPDES General Permit No. CAS0085324, Order R5-2016-0040 Waste Discharge Requirements for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4), which became effective in October 2016. An "MS4" is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) designed or used for collecting or conveying stormwater; (ii) which is not a combined sewer; and (iii) which is not part of a Publicly Owned Treatment Works (POTW). The City of Elk Grove is a Phase I MS4 permittee. Projects subject to the requirements of the Phase I MS4 NPDES permit must submit the appropriate Post-Construction Stormwater Plan based on the project type/development category. Regulated Projects include residential projects that create or replace one acre or more of impervious surface. Regulated Projects that create and/or replace one or more acres of impervious surface are subject to hydromodification management, treatment, LID, and trash capture requirements. The Project would create more than one acre of impervious area, and, thus, is considered a Regulated Project subject to the Phase I MS4 NPDES permit post-construction stormwater requirements.

Regulated Projects are required to divide the project area into Drainage Management Areas (DMAs) and implement and direct water to appropriately-sized Site Design Measures (SDMs) and applicable Post Construction Measures to each DMA to the MEP. Regulated Projects must additionally include Source Control BMPs where possible. SDMs and post-construction measures include, but are not limited to:

- Rooftop and impervious area disconnection;
- Porous pavement;
- Rain barrels and cisterns;
- Vegetated swales;
- Bio-retention facilities;

- Green roofs; or
- Other equivalent measures.

A detailed description of the requirements for Regulated Projects, such as the Project, is included in the SQDM for the Sacramento region.[6] Pursuant to Figure 5-2 of the SQDM, the site is located within an area that is subject to hydromodification management.

City of Elk Grove Municipal Code

The Elk Grove Municipal Code (EGMC) includes ordinances associated with hydrology and water quality. The applicable ordinances are discussed in further detail below.

Chapter 15.12: Stormwater Management and Discharge Control

The purpose of EGMC Chapter 15.12, Stormwater Management and Discharge Control, is to reduce the discharge of pollutants in stormwater to the maximum extent practicable; prohibit non-stormwater discharges into the City stormwater conveyance system; comply with the requirements of the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and NPDES Municipal Storm Water Discharge Permit No. CA0082597; fully implement the comprehensive stormwater management program as approved by the Regional Board; protect the physical integrity and function of the City stormwater conveyance system; and prevent the contamination of groundwater. Pursuant to EGMC Section 15.12.040, the provisions of Chapter 15.12 are applicable to all users and potential users located within the City and all users that discharge either directly or indirectly into the City stormwater conveyance system.

Chapter 16.44: Land Grading and Erosion Control

The intent of Chapter 16.44, Land Grading and Erosion Control, is to minimize damage to surrounding properties and public rights-of-way, the degradation of the water quality of watercourses, and the disruption of natural or City-authorized drainage flows caused by the activities of clearing and grubbing; grading; filling and excavating of land; sediment and pollutant runoff from other construction-related activities; and to comply with the provisions of the City's NPDES Permit Number CA0082597, issued by the CVRWQCB. Except as provided by EGMC Sections 16.44.060, 16.44.065, and/or 16.44.070, a grading and erosion control permit is required to 1. grade, fill, excavate, store, or dispose of 350 cubic yards or more of soil or earthly material, 2. clear and grub one acre or greater of land within the City, or 3. construct swimming pools, basements, structure footings, or underground utilities.

Chapter 16.50: Flood Damage Prevention

Chapter 16.50 of the EGMC is intended to provide floodplain management regulations throughout all publicly and privately owned land within the City's flood-prone areas. The regulations are designed to protect human life and health; minimize the need for rescue and relief efforts associated with flooding; reduce damage to public facilities and utilities, as well as to streets and bridges, located in SFHAs; provide for the development of SFHAs in a manner that minimizes future flood damage; and ensure that buyers are notified that a property is located within an SFHA.

EGMC Section 16.50.060 includes specific standards for subdivisions. Such standards include, but are not limited to, identifying on-site SFHAs and BFEs, construction specifications for buildings within SFHAs, requiring utility lines to be located and constructed to minimize flood damage,

[6] City of Citrus Heights, City of Elk Grove, City of Folsom, City of Galt, City of Rancho Cordova, City of Sacramento, County of Sacramento. *Sacramento Region Stormwater Quality Design Manual.* July 2018.

requiring subdivisions to provide adequate drainage, and, in cases where the use of fill is required, requiring no net increase to water surface elevations.

4.7.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the Project's potential impacts related to hydrology and water quality. A discussion of the Project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact would occur if the Project would result in any of the following:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade water quality;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Result in substantial erosion or siltation on- or off-site;
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or;
    - Impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The Project's impacts associated with erosion or siltation on- or off-site are discussed in Chapter 4.5, Geology and Soils, of this EIR.

Method of Analysis

Evaluation of potential impacts of the Project on hydrology and water quality were based on the following: the City of Elk Grove General Plan; the City of Elk Grove General Plan EIR; the FEMA National Flood Hazard Layer (NFHL) Viewer; and applicable State and federal regulations as described above in the Regulatory Context section. In particular, the FEMA NFHL Viewer was used to identify any on-site SFHAs. Because the site is currently undeveloped and would be developed with residential uses, the foregoing information was used to calculate the potential impacts to the Project associated with SFHAs and/or floodplains.

The standards of significance listed above are used to delineate the significance of any potential impacts.

Project Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the Project in comparison with the standards of significance identified above.

4.7-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Construction of the Project, including off-site improvements, would include grading, excavation, trenching for utilities, and other construction-related activities that could cause soil erosion at an accelerated rate during storm events. All such activities have the potential to affect water quality and contribute to localized violations of water quality standards if impacted stormwater runoff from construction activities enters the tributaries to Laguna Creek.

Soils exposed by the aforementioned types of construction activities have the potential to affect water quality in two ways: 1) suspended soil particles and sediments transported through runoff; or 2) sediments transported as dust that eventually reach local water bodies. Spills or leaks from heavy equipment and machinery, staging areas, or building sites also have the potential to enter runoff. Typical pollutants include, but are not limited to, petroleum and heavy metals from equipment and products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products could result in water quality degradation if runoff containing the sediment or contaminants should enter receiving waters in sufficient quantities. Discharge of polluted stormwater or non-stormwater runoff could violate waste discharge requirements. However, in general, impacts from construction-related activities would generally be short-term and of limited duration.

Because the Project would require construction activities that would result in a land disturbance of over an acre, the project applicant would be required by the State to comply with the most current Construction General Permit requirements. Pursuant to the requirements, a SWPPP would be prepared for the overall project, which would include the site map, drainage patterns and stormwater collection and discharge points, BMPs, and a monitoring and reporting framework for implementation of BMPs, as necessary. In addition, a Notice of Intent (NOI) would be filed with CVRWQCB.

As discussed in further depth in Chapter 4.5, Geology and Soils, of this EIR, development of the SWPPP would include plans to treat stormwater runoff in accordance with the standards of the California Stormwater Management Practice New Development and Redevelopment Handbook and the MS4 Permit standards. The plan would include drainage design from all paved surfaces, including streets, parking lots, driveways, and roofs, as well as landscaping. In addition, the project would be subject to EGMC Chapter 16.44, which establishes land grading and erosion control standards intended (in part) to minimize the degradation of water quality and the disruption of drainage flows. Implementation of BMPs to control erosion and, thus, sediment related pollution, would ensure that the Project would not adversely affect water quality during construction.

Non-stormwater management and material management controls reduce non-sediment-related pollutants from potentially leaving the construction site to the extent practicable. The Construction General Permit prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges (such as irrigation and pipe flushing and testing). Non-stormwater BMPs tend to be management practices with the purpose of preventing stormwater from coming into contact with potential pollutants. Examples of non-stormwater BMPs include preventing illicit discharges, and implementing good practices for vehicle and equipment maintenance, cleaning, and fueling operations, such as using drip pans under vehicles. Waste and materials management BMPs include implementing practices and procedures to prevent pollution from materials used on construction sites. Examples of materials management BMPs include the following:

- Securely locating portable toilets away from the storm drainage system and performing routine maintenance;
- Providing a central location for concrete washout and performing routine maintenance;
- Providing several dumpsters and trash cans throughout the construction site for litter/floatable management; and
- Covering and/or containing stockpiled materials in a central location and overall good housekeeping on the site.

While the final materials management BMPs to be used during construction of the Project, including the off-site improvements are currently unknown, the project would likely include a combination of the BMP examples listed above. Final BMPs for the Project and off-site improvements construction would be chosen in consultation with the applicable California Stormwater Quality Association (CASQA) BMP Handbooks, and implemented by the project contractor.

In accordance with the Construction General Permit, the site and off-site improvement areas would also be inspected during construction before and after storm events and every 24 hours during extended storm events in order to identify maintenance requirements for the implemented BMPs and to determine the effectiveness of the implemented BMPs. As a “living document”, the site-specific SWPPP that would be prepared for the Project, including off-site improvements, would be modified as construction activities progress. A Qualified SWPPP Practitioner (QSP) would ensure compliance with the SWPPP through regular monitoring and visual inspections during construction activities. The QSP for the project would amend the SWPPP and revise project BMPs, as determined necessary through field inspections, to protect against substantial erosion or siltation on- or off-site.

Compliance with the State’s Construction General Permit and EGMC Chapter 16.44, as described above, would minimize the potential degradation of stormwater quality and downstream surface water associated with construction of the Project, including the off-site improvements. In addition, BMPs would be required to be designed in accordance with the CASQA BMP Handbooks for Construction and for New Development/Redevelopment. However, a SWPPP has not yet been prepared for the Project. Without preparation of a SWPPP, proper implementation of BMPs cannot be ensured at this time, and the Project’s construction activities could result in an increase

in erosion, and consequently affect water quality. Therefore, development of the Project, including off-site improvements, could result in a ***significant*** impact related to short-term construction-related water quality.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.7-1 *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the SWRCB. The developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. Construction (temporary) BMPs for the Project may include, but are not limited to: fiber rolls, straw bale barrier, straw wattles, storm drain inlet protection, velocity dissipation devices, silt fences, wind erosion control, stabilized construction entrance, hydroseeding, revegetation techniques, and dust control measures. The SWPPP shall be submitted to the City Engineer for review and approval and shall remain on the site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*

4.7-2 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Development of the Project would result in the conversion of an undeveloped site to age-restricted single-family residential uses and associated amenities, such as landscaping. The Project would also require off-site utility and roadway improvements; however, the proposed off-site improvements would predominantly occur within existing roadway rights-of-way and would not introduce new sources of pollutants to the project area beyond what currently exists within the roadway rights-of-way. Therefore, only the new on-site land uses could result in new stormwater pollutants being introduced to the project area. Pollutants associated with the operational phase of the Project could include nutrients, oil and grease, metals, organics, pesticides, bacteria, sediment, trash, and other debris. Nutrients that could be present in post-construction stormwater include nitrogen and phosphorous resulting from fertilizers applied to landscaping. Excess nutrients could affect water quality by promoting excessive and/or a rapid growth of aquatic vegetation, which reduces water clarity and results in oxygen depletion. Pesticides, which are toxic to aquatic organisms and can bioaccumulate in larger species, such as birds and fish, can potentially enter stormwater after application to landscaped areas within the site. Oil and grease could

enter stormwater from vehicle leaks, traffic, and maintenance activities. Metals could enter stormwater as surfaces corrode, decay, or leach. Clippings associated with landscape maintenance and street litter could be carried into storm drainage systems. Pathogens (from pets, wildlife, and human activities) have the potential to affect downstream water quality.

Development of the Project could also increase polluted non-stormwater runoff (e.g., wash water and landscape irrigation runoff). Such non-stormwater runoff could flow down sidewalks, parking areas, and streets, and pick up additional pollutants deposited on impervious surfaces prior to discharge into the storm drain system and surface waters. Discharge of polluted stormwater or non-stormwater runoff could violate waste discharge requirements.

Phase I MS4 Permit Requirements

As discussed previously, the Project is located within the permit area covered by City's MS4 Permit (NPDES General Permit No. CAS0085324, Order R5-2016-0040 Waste Discharge Requirements for Stormwater Discharges from Municipal Separate Storm Sewer Systems), pursuant to the NPDES Phase I program. Project-related stormwater discharges are subject to all applicable requirements of said permit. Specifically, as noted above, regulated projects are required to divide the project area into DMAs and implement and direct water to appropriately-sized post-construction stormwater quality measures to each DMA. Source control measures must be designed for pollutant-generating activities or sources consistent with recommendations from the CASQA Stormwater BMP Handbook for New Development and Redevelopment, the Sacramento region SQDM, or equivalent manual, and must be shown on the improvement plans. The City is responsible for ensuring its specific MS4 Permit requirements are implemented. The Project would be required to comply with all applicable requirements, which would be ensured through the City's improvement plan review and approval process.

Proposed Stormwater Drainage System

Development of the site would require installation of on-site drainage facilities and alteration of site topography to accommodate the future land uses. Runoff from the proposed on-site development and from the surrounding roadways would drain on-site and ultimately outfall to Laguna Creek, which bisects the site. Stormwater drainage system improvements would consist of a combination of pipeline infrastructure located under the proposed internal roadway network within a dedicated easement, roadside ditches, drainage basins for storm attenuation, and bioretention/LID features, as well as outfall ditches to Laguna Creek.

Figure 4.7-5 presents the proposed storm drain system improvements, including preliminary basin locations. On-site drainage basins are currently anticipated to be located to the east and west of Laguna Creek, outside of the 100-year floodplain. The proposed bio-retention basins would be sized to treat the first flush, which includes a majority of the larger pollutants (sand, soil, silt, grease and trash), as well as smaller pollutants (sediment, nutrient, metals, pesticides and organics). In addition, the proposed LID features would be sufficiently sized to meet the required storage volumes. Thus, project runoff entering Laguna Creek would be properly treated, and would not pollute downstream waterways.

Figure 4.7-5
Proposed Drainage Conditions

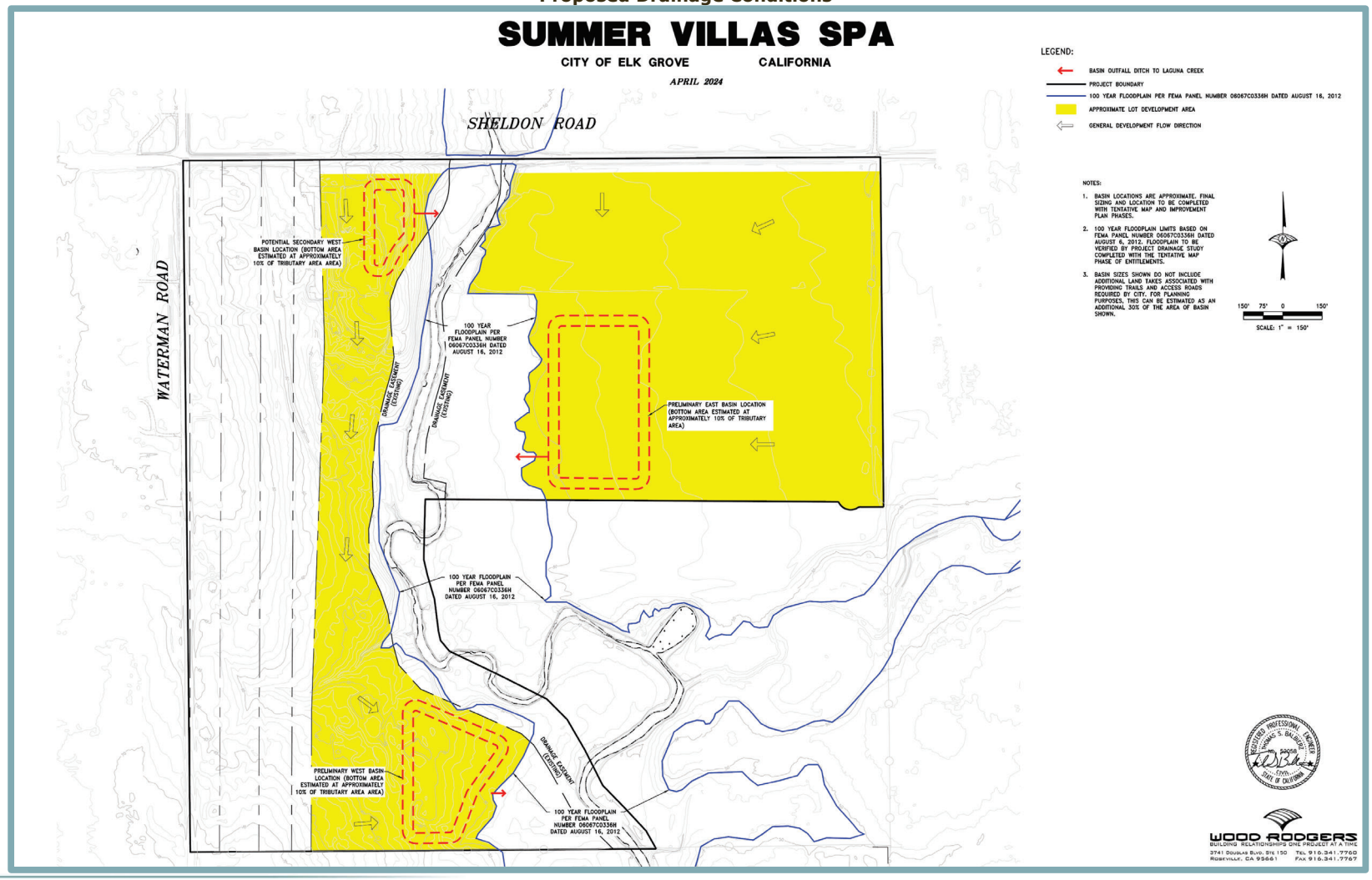


*Figure not OCR compatible.

However, final sizing and locations have not been determined at this time and would be determined in conjunction with submittal of development applications for future development on the site, as required pursuant to Mitigation Measure 4.7-4.

In order to ensure continued operation of the proposed LID control features, a detailed site-specific inspection and maintenance procedures plan should be implemented by the project applicant. For example, plants and vegetation within the bio-retention basins and hydromodification basin should be inspected monthly, and the basins should be inspected for the presence of standing water 72 hours after rain events. Required maintenance activity should include, but not necessarily be limited to, removal of debris from basins and removal of debris from outlets of basins. Without implementation of such measures, the basins could fail to ensure that polluted runoff would not enter downstream water bodies, including Laguna Creek, during the continued operation of the project.

Conclusion

Based on the above, the Project includes site design measures to ensure that stormwater runoff is properly treated prior to discharge to Laguna Creek. Thus, urban pollutants entering and potentially degrading local water quality would not be expected to occur as a result of the project. However, because a final BMP and water quality maintenance plan has not been prepared, ongoing maintenance of the proposed bio-retention basins and the incorporation of proper source control measures cannot be ensured. Should the project applicant fail to prepare and implement such documentation, the Project could result in a ***significant*** impact related to a violation of water quality standards or waste discharge requirements or otherwise substantial degradation of surface or ground water quality during operations.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.7-2(a) *Prior to approval of final Project improvement plans, the Project applicant shall submit a detailed Best Management Practice (BMP) and water quality maintenance plan to the City Community Development Department for review and approval. The BMP and water quality maintenance plan shall meet the standards of the City's NPDES Permit (No. CAS0085324), the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment, and the Stormwater Quality Design Manual for the Sacramento region. Site design measures, source control measures, hydromodification management, and Low Impact Development (LID) standards, as necessary, shall be incorporated into the design and shown on the improvement plans.*

4.7-2(b) *Prior to approval of final Project improvement plans, the Project applicant shall submit a maintenance covenant to the City Community Development Department for review and approval. The maintenance covenant shall be recorded against the title to the site in the Office of the Sacramento County Recorder and shall bind any and all*

subsequent owners of the property to ensure the long-term maintenance of stormwater quality measures.

4.7-3 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Based on the analysis below, the impact is *less than significant*.

Groundwater supply is discussed in Chapter 4.10, Public Services and Utilities, of this EIR, under Impact 4.10-7. As discussed therein, the Elk Grove Water District (EGWD) provides domestic water services supplied by groundwater and purchased surface water. EGWD anticipates meeting all water demand under single- and multiple-dry years, and maintains a Water Shortage Contingency Plan water if water supplies are insufficient to meet average demand. Based on the historic pattern of water supply for the Project area, sufficient surface water and groundwater supplies are anticipated to be available during normal, dry, and multiple dry years. Therefore, the Project would not involve substantially increased demand on groundwater supplies. In addition, the proposed off-site improvements associated with the Project would predominantly occur within existing roadway rights-of-way, which do not currently allow for groundwater recharge. Accordingly, the proposed off-site improvements would not interfere substantially with groundwater recharge. Therefore, the following discussion is focused on the potential for the Project to interfere substantially with groundwater recharge within the site.

The Project would result in an increase in on-site impervious surfaces, which would reduce the infiltration of groundwater as compared to existing conditions. Groundwater relies on annual rainfall and percolation through pervious soils to recharge the system. Although the future development of the site with the proposed uses would include the addition of new impervious surfaces, the Project would not include any development within the channel of Laguna Creek tributaries and would ultimately convey on-site flows into Laguna Creek through the project drainage system. Therefore, infiltration of water moving through Laguna Creek would continue to occur and contribute to groundwater recharge. In addition, the proposed bioretention basins would include plants, engineered soil, and filter media designed to capture, treat, and infiltrate stormwater runoff from impervious surfaces. The basins would filter out pollutants and sediment from the water and promote groundwater recharge. Similarly, the proposed LID control features incorporated into the Project design would increase on-site stormwater infiltration. Overall, development of the Project would provide opportunities for groundwater recharge and, thus, would not result in a net loss of recharge.

Considering that stormwater from the site would continue to replenish groundwater through percolation into soils within Laguna Creek and that the Project would not involve substantially increased demand on groundwater supplies, the Project would not create a conflict with, or impede the implementation of, a sustainable groundwater plan. Thus, impacts related to groundwater would be ***less than significant***.

Mitigation Measure(s)
None required.

4.7-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The potential for the Project to result in substantial additional sources of polluted runoff, including erosion, is addressed under Impacts 4.7-1 and 4.7-2 above. Further discussion regarding erosion is provided in Chapter 4.5, Geology and Soils, of this EIR.

As discussed throughout this chapter, the site contains a tributary to Laguna Creek. Therefore, the site's current setting is dominated by pervious surfaces and urbanization of the site would facilitate the development of a senior-based housing community with a maximum of 499 residential units. Such development would include new impervious surfaces, such as building rooftops and parking lots. Additionally, the Project would include the development of new internal streets and infrastructure improvements, which would create more impervious surfaces. All runoff from the on-site project components and proposed roadways would be collected by the on-site storm drainage system. The on-site stormwater drainage pipeline infrastructure would route flows to new bio-retention basins, which would detain and treat runoff prior to discharging into Laguna Creek. In addition to the bio-retention basins and hydromodification basin, the project would incorporate LID controls consistent with the SQDM for the Sacramento region. As previously discussed, the proposed LID features would be sufficiently sized to meet the required storage volumes. Thus, project runoff entering Laguna Creek would not exceed the capacity of the on-site systems, and would not result in on-site flooding. However, final sizing and locations of storm drainage improvements have not been determined at this time.

The Project would also require improvements to the existing roundabouts at the Sheldon Road/Waterman Road intersection, adjacent to the site's northwest corner, and Sheldon Road/Bradshaw Road intersection. Additional off-site improvements would include the construction of approximately 6,500 linear feet of off-site force mains in Sheldon Road and Elk Grove Florin Road, as well as the extension of water mains to either connect to an existing main in Waterman Road or near Elk Grove Florin Road. The foregoing off-site improvement areas would primarily be within existing disturbed areas and/or within existing roadway rights-of-way. However, a culvert across a Laguna Creek tributary currently exists at the Sheldon Road/Bradshaw Road intersection. Should roundabout improvements widen the existing roadway into the

existing culvert area, peak runoff flows could increase significantly and result in off-site flooding.

Based on the above, development of the Project could result in an increase in off- or on-site peak runoff flows relative to existing conditions. Therefore, a final drainage report would be required with the project improvement plans to specify the site's drainage design and address the off-site improvements triggered by Project development. Therefore, without approval of a final drainage report, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.7-4 *In conjunction with submittal of any development applications for future on-site development or any off-site roadway improvements related to the Project, such as roundabout widening, the Project applicant shall submit, for review and approval, a design-level drainage report to the City of Elk Grove Community Development Department. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: written text addressing existing conditions; watershed maps; changes in flows and patterns affected by the proposed off- and on-site improvements; and all appropriate calculations, including sizing and location. The report shall include an evaluation of the drainage system design in accordance with all applicable design parameters and requirements set forth by the City of Elk Grove, including, but not limited to, the inclusion of appropriate stormwater quality and LID features; conveyance and attenuation infrastructure sufficient to ensure post-project peak flows are equal to or less than pre-project peak flows; and the ability to accommodate post-development flows (inclusive of off-site flows) in the 100-year, 24-hour storm event, unless a different design storm is specified by the City. Design-level recommendations provided in the drainage report shall be included in the improvement plans prior to their approval by the City of Elk Grove Community Development Department.*

4.7-5 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The site is located approximately 88.53 miles from the coast and is not located near any lakes. Therefore, the Project would not be subject to potential impacts related to tsunamis or seiches and the following analysis relates to flood hazard zones only.

As discussed previously, pursuant to the FEMA FIRM for the area, portions of the site are designated by FEMA as Zone X, which is defined as an area of minimal flood hazard located outside of the 100-year floodplain. However, the site also includes areas designated by FEMA as Zone AE with BFEs ranging between 51 and 53 feet, located around Laguna Creek. As stated in the Project Description chapter of this EIR, the proposed Laguna Creek Open Space area would encompass the Laguna Creek corridor and the 100-year floodplain through a 100-foot setback on each side of Laguna Creek. The two proposed residential neighborhoods are anticipated to be outside of the 100-year floodplain. A pedestrian bridge is proposed over Laguna Creek through the open space area, which would connect the two Active Adult Neighborhoods. The pedestrian bridge is anticipated to avoid the 100-year floodplain limits. However, because development is not proposed at this time and detailed plans have not been prepared, assurance that development would not occur within the SFHA cannot be made at this time. Similarly, the proposed on-site drainage basins are currently anticipated to be located to the east and west of Laguna Creek, outside of the 100-year floodplain. However, final sizing and locations have not been determined at this time. As such, development of the Project could occur within the 100-year floodplain limits, which could impede or redirect flood flows.

In addition, while the majority of the off-site improvement areas are located outside of designated FEMA floodplains (see Figure 4.7-4), the Sheldon Road/Bradshaw Road intersection and associated culvert are located within Zone AE with a BFE ranging between 56.4 feet to 55.7 feet, which is an SFHA (see Figure 4.7-3). Therefore, implementation of the off-site improvements could result in a potentially significant impact related to the alteration of an existing drainage pattern or release pollutants within a flood hazard zone.

Considering the above, the Project and off-site improvements to the Sheldon Road/Bradshaw Road intersection could result in the impediment or redirection of flood flows such that on-site structures would be exposed to flood risk. Therefore, a ***significant*** impact could occur related to alteration of the existing drainage pattern of the site or off-site improvement areas through alteration of a course of a stream in a manner which would impede or redirect flood flows, or in a flood hazard zone, risk release of pollutants due to Project inundation.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.7-5(a) *Prior to issuance of any grading permits associated with the Project, the Project contractor shall submit improvement plans to the City of Elk Grove Community Development Department and City Engineer for review and approval that demonstrate that all residential development and development associated with the private community recreation center/clubhouse would occur outside of the FEMA mapped SFHA. Benchmark elevation and location shall be shown on the improvement plans to the satisfaction of the City Engineer.*

4.7-5(b) *Prior to approval of any improvement plans for the pedestrian bridge across Laguna Creek, off-site improvements to the Sheldon Road/Bradshaw Road intersection, and on-site storm drain system improvements, the improvement plans shall demonstrate, to the satisfaction of the City Engineer, that the improvements would be designed to avoid the FEMA mapped SFHA. Benchmark elevation and location shall be shown on the improvement plans to the satisfaction of the City Engineer.*

If placement of the vertical supports or other components of the pedestrian bridge or any components of the storm drain system or off-site Sheldon Road/Bradshaw Road intersection improvements would occur within the SFHA, the improvement plans shall demonstrate that the improvements would be designed in compliance with Section 16.50.060 of the EGMC, subject to review and approval by the City of Elk Grove Community Development Department and City Engineer. In addition, the applicant shall provide calculations certified by a California registered civil engineer or licensed land surveyor to the City Engineer demonstrating that the improvements will not result in any increase in the BFE.

If any of the improvements would result in a modification to the FEMA mapped SFHA, the applicant shall obtain from FEMA, a Conditional Letter of Map Revision (CLOMR). A copy of the letter shall be provided to the Elk Grove Community Development Department and City Engineer. A Letter of Map Revision (LOMR) from FEMA shall be provided to the City Engineer prior to acceptance of grading permits as complete.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

For further detail related to the cumulative setting of the Project, refer to Chapter 6, Statutorily Required Sections of this EIR. The cumulative setting for impacts related to hydrology and water quality would be the Sacramento River watershed.

4.7-6 Cumulative impacts related to the violation of water quality standards or waste discharge requirements, groundwater quality, management, and recharge, and impacts resulting from the alteration of existing drainage patterns. Based on the analysis below, the cumulative impact is *less than significant*.

Construction activities have the potential to affect water quality and contribute to localized violations of water quality standards if stormwater runoff from construction activities enters receiving waters. Runoff from additional construction sites within the project area could carry sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products, which could result in water quality degradation if runoff containing such sediment or contaminants should enter receiving waters in sufficient quantities. Thus, construction activities, including the off-site improvements, associated with the Project, in combination with construction activities associated with other reasonably foreseeable projects in the area, could result in cumulative impacts related to water quality. However, all construction projects resulting in disturbance of more than one acre of land are required to comply with the most current Construction General Permit requirements. Conformance with the Construction General Permit would require preparation of SWPPPs for all such projects, and subsequent implementation of BMPs to prevent the discharge of pollutants. Considering the existing permitting requirements for construction activity in the Project area, cumulative construction projects would be heavily regulated and impacts related to the degradation of water quality would be minimized to the extent feasible.

Similar to the Project, cumulative development within the City of Elk Grove would be subject to Phase I MS4 stormwater requirements, including source control and treatment control features. Specifically, regulated projects are required to divide the project area into DMAs and implement and direct water to appropriately-sized SDMs to each DMA. Source control measures must be designed for pollutant-generating activities or sources consistent with recommendations from the CASQA Stormwater BMP Handbook for New Development and Redevelopment, or equivalent manual, and must be shown on improvement plans. Cumulative development projects within the project area would also be subject to Phase I MS4 stormwater requirements, as well as all City requirements related to stormwater treatment and control, including hydraulically sized stormwater treatment and flow control measures to limit post-development runoff rates and amounts to below pre-development levels. Compliance with the foregoing regulations would ensure that cumulative impacts related to the alteration of drainage patterns, the discharge of pollutants, and flooding are minimized to the extent feasible.

Based on the conceptual stormwater design, during operations, the stormwater runoff would be properly treated prior to discharge from the site. In addition, the Project would be required by Mitigation Measure 4.7-4 to prepare final drainage reports for review and approval by the City to ensure Project designs are consistent with all applicable regulations. Thus, urban pollutants entering and potentially polluting the local drainage system would not be expected to occur as a result of the Project.

Cumulative development within the Project region would also result in increased amounts of impervious surfaces, which would reduce the infiltration of groundwater within the Project region. Although cumulative development would increase the amount of impervious surfaces in the Project region, stormwater would continue to be discharged into local waterways, including Laguna Creek, where stormwater could partially infiltrate into the soil and recharge groundwater. Furthermore, the site itself is not considered a site of substantial groundwater recharge; thus, development of the Project would not result in a significant cumulative loss of groundwater recharge.

Because groundwater is managed on a subbasin level, and the Project would not result in a substantial site-specific loss of groundwater recharge, the Project, in combination with cumulative development within the region, would not result in a significant cumulative impact to groundwater recharge.

Overall, based on compliance with applicable regulations, cumulative development within the area in conjunction with the Project would not substantially alter the existing drainage pattern of the area in a manner which would result in substantial adverse effects, and a ***less-than-significant*** cumulative impact would occur.

Mitigation Measure(s)

None required.

4.8 Land Use and Planning/Population and Housing

4.8 LAND USE AND PLANNING/ POPULATION AND HOUSING

4.8.1 INTRODUCTION

The purpose of the Land Use and Planning/Population and Housing chapter of the EIR is to examine the Project's compatibility with existing and planned land uses in the area and assess any inconsistencies with applicable land use plans, policies and regulations adopted by the City for the purpose of avoiding or mitigating environmental effects, including the City of Elk Grove General Plan and the Rural Area Community Plan, which is included within Chapter 9 of the General Plan.[1] Furthermore, the chapter includes an evaluation of the potential for the Project to induce substantial unplanned population growth in the project area, either directly or indirectly, and/or displace substantial numbers of existing housing and/or people, necessitating the construction of replacement housing elsewhere. The "area" as defined for purposes of this analysis, where population growth could be induced as a result of the Project, is the City of Elk Grove. The reader is referred to the various environmental resource evaluations presented in the other technical chapters of this EIR for a discussion of potential physical/environmental effects that may result from the proposed land use changes.

The primary documents referenced to prepare this chapter include the City of Elk Grove General Plan, the City of Elk Grove General Plan EIR,[2] and the City of Elk Grove 2021-2029 Housing Element.[3] Further information was sourced from the Sacramento Area Council of Governments (SACOG) 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS).[4]

4.8.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing land uses on the site and within the surrounding area, at the time the Notice of Preparation (NOP) was published, as well as the existing plans and policies that guide the development of the site. An overview of the current population and housing trends in the region is provided as well.

Site Characteristics and Surrounding Land Uses

The 115.9-acre site is located at 9350 Sheldon Road, southeast of the intersection of Sheldon Road and Waterman Road, in the northeastern portion of the City. The site is currently developed with a single-unit residence and accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries centrally run from the northern boundary to the southeastern boundary of the site.

Surrounding existing uses include rural estate and rural residential residences to the north, across Sheldon Road; undeveloped land and rural residences to the east; rural residences and a school

1 City of Elk Grove. *General Plan*. Adopted February 2019. Amended December 13, 2023.
2 City of Elk Grove. *General Plan Update Draft Environmental Impact Report*. February 2019.
3 City of Elk Grove. *City of Elk Grove 2021-2029 Housing Element*. February 2021.
4 Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy*. Adopted November 18, 2019.

to the southeast; rural residences to the west, across Waterman Road; and a mostly undeveloped land with a non-profit horse rescue operation to the south. In addition, the Elliot Springs Subdivision is currently under construction to the southwest.

The site is located within the Rural Area Community Plan of the City's General Plan. Pursuant to the City's General Plan, the Rural Area is the primary agricultural area in the City with rural residential, agricultural, open space, and supporting commercial uses. As new development occurs, preserving and enhancing the rural lifestyle and heritage is a priority for the rural community. The Rural Area does not include the infrastructure typically found in an urban or suburban community, such as sidewalks and widened, improved roads. The area is not part of the public sewer system; rather, parcels use individual or small combined septic systems. Residents and businesses also maintain their own wells for water. In addition, streets within the Rural Area are intended to be consistent with the Rural Road Improvement Policy and consistent with the intent of the Complete Streets Act.

Land Use Designations and Zoning Districts

Both the Rural Area Community Plan and the City of Elk Grove General Plan designate the site as Rural Residential (RR). The site is zoned Agricultural Residential-Two Acre Minimum (AR-2). Table 4.8-1 provides a summary of the current General Plan land use and zoning designations of the properties adjacent to the site.

Table 4.8-1
Summary of Adjacent Land Use Designations and Zoning Districts

Relationship to Site	Current Land Use	Land Use Designation	Zoning Designation
North	Open Space, Rural Residences	RR	AR-2, Flood Combining District (F)
South	Undeveloped Land, Horse Rescue, and Estate Residences	Estate Residential (ER)	Agricultural Residential-One Acre Minimum (AR-1)
East	Rural Residences, Undeveloped Land	RR	AR-2, Agricultural Residential-Five Acre Minimum (AR-5)
West	Open Space, Rural Residences	RR	AR-2 and Special Planning Area (SPA)

Land Use Designation Definitions

The following sections provide definitions of the land use designations noted above, as summarized from the City of Elk Grove General Plan.

Rural Residential (RR)

RR uses are generally characterized by large-lot rural residential development. Limited agricultural uses and animal-keeping are also allowed. Lot sizes typically range from two to 10 acres. The RR land use designation allows for a residential density between 0.1 dwelling units per acre (du/ac) to 0.5 du/ac.

Estate Residential (ER)
ER 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. The ER land use designation allows for a residential density between 0.51 du/ac to 4.0 du/ac.

Zoning District Definitions
The following sections provide definitions of the zoning designations noted above, as summarized from the City of Elk Grove Municipal Code (EGMC) (Title 23).

Agricultural Residential-One Acre Minimum (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 (ER) General Plan designation. The AR-1 district allows for one primary residential unit on lots with a minimum size of one 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.

Agricultural Residential-Two Acre Minimum (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 the AR-2 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 RR General Plan designation. The AR-2 district allows for one primary residential unit on lots with a minimum size of two gross acres.

Agricultural Residential-Five Acre Minimum (AR-5)
The AR-5 zoning district is applied to areas of the City to accommodate low density single-family development along with agricultural and accessory uses. Lots within the AR-5 zoning designation are rural in nature and include small local roadways, animal keeping and raising, equestrian uses, agriculture and limited commercial opportunities. The AR-5 zoning district implements the Rural Residential General Plan designation. The AR-5 zoning district allows for one residential unit on lots with a minimum size of five gross acres.

Special Planning Area (SPA)
The purpose of the SPA district is to designate areas for unique and imaginative planning standards and regulations not provided through the application of standard zoning districts.

Flood Combining District (F)
The F combining district provides special regulations for the development of properties within the City covered by rivers, creeks, and streams and subject to flooding.

Population and Housing
Population growth assumptions, average household sizes, and vacancy rates for the City of Elk Grove are discussed below.

City of Elk Grove Population Growth Trends

Pursuant to the City's 2021-2029 Housing Element and , the City of Elk Grove population in 2020 was 176,145 and is projected to continue to grow at a modest rate over the next 20 years (0.78 percent), reaching over 202,000 by 2040 (see Table 4.8-2). Population growth in the City has slowed over the past decade, growing annually by 1.79 percent between 2013 and 2019, as compared to 4.35 percent between 2005 and 2010. From incorporation in 2000 until 2010, the population of the City increased by 111 percent, an average increase of 11 percent annually.

Table 4.8-2
City of Elk Grove Population Growth

Year	Population	Change	Percent Change	Annual Percentage Change
2000	72,665	--	--	--
2005	125,703	53,038	72.99%	14.60%
2010	153,015	27,312	21.73%	4.35%
2013	159,074	6,059	3.96%	1.32%
2020	176,145	17,071	10.73%	1.79%
2040	202,630	26,485	15.04%	0.72%

Source: City of Elk Grove, 2021-2029 Housing Element, 2021. Data shown in Table 3 of the 2021-2029 Housing Element is based on 2016-2040 growth estimates included in the 2016 MTP/SCS.

City of Elk Grove Household Growth Projections

As discussed above, the population of the City is anticipated to experience growth. Under the projections developed by SACOG for the 2020 MTP/SCS, SACOG identified a scenario of 202,630 residents by 2040. SACOG, through the MTP/SCS process, develops a constrained transportation plan for the region. One of the elements necessary in developing the transportation plan is regional land use modeling and growth projections. The MTP/SCS projections do not always match local agency general plans, due to the constrained nature of the MTP/SCS, especially related to transportation funding restrictions and greenhouse gas (GHG) targets for the region. The MTP/SCS is not a regional land use plan and does not set land use policy for the region or any of SACOG's member agencies. A development project not identified in the MTP/SCS does not necessarily mean that the project shall not proceed.

Under the 2020 MTP/SCS, the site is located within a Rural Residential Community, aligning with the City's existing General Plan land use designation for the site.[5] Rural Residential Communities are defined as areas typically located outside of urbanized areas and designated in local land use plans for rural residential development. Rural Residential Communities are predominantly residential with some small-scale hobby or commercial farming. Travel occurs almost exclusively by automobile and transit service is minimal or nonexistent. As of 2016, Rural Residential Communities within Elk Grove included approximately 1,210 housing units, and such communities are anticipated to grow to 3,570 housing units at 2040 under the MTP/SCS assumptions. Between 2016 and 2040, the MTP/SCS growth scenario for Rural Residential Communities within Elk Grove identified an increase from 1,210 to 1,600 housing units.[6]

[5] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy*. Adopted November 18, 2019.

[6] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* [Appendix C, pg. 9]. Adopted November 18, 2019.

Average Household Size

The average size of households is a function of the number of residents living in households within a given area divided by the number of occupied housing units within the given area. As shown in Table 4.8-3, average household sizes in California slightly decreased between 2010 and 2023 by approximately 0.15 persons/household. Concurrently, the average household size within Sacramento County decreased by 0.05 persons/household. Within the City of Elk Grove, the average household size decreased by 0.09 persons/household.

Table 4.8-3
Average Household Size (Persons Per Household)

Area	2010	2024
California	2.90	2.75
Sacramento County	2.71	2.66
City of Elk Grove	3.18	3.09

Sources:
California Department of Finance. Demographic Profile, Table 1, Census 2010. Released May 12, 2011.

California Department of Finance. Report E-5: Population and Housing Estimates for Cities Counties and the State, 2021-2024. Released May 1, 2024.

Vacancy Rate

According to the 2014–2018 American Community Survey (ACS), the vacancy rate for all units was 3.17 percent for the City and 5.50 percent for Sacramento County. The California Department of Finance reports that in 2024, the overall vacancy rate within the City of Elk Grove was 2.4 percent.[7]

Regional Housing Needs Plan

The Regional Housing Needs Allocation (RHNA) is a minimum projection of additional housing units needed to accommodate projected household growth of all income levels by the end of the housing element's statutory planning period. Based on SACOG's adopted RHNA, each city and county must update the housing element of their General Plan to demonstrate how the jurisdiction will meet the expected growth in housing need over the planning period.

According to the U.S. Department of Housing and Urban Development (HUD), housing is classified as "affordable" if households do not pay more than 30 percent of income for payment of rent (including utilities) or monthly homeownership costs (including mortgage payments, taxes, and insurance). SACOG adopted their current Regional Housing Needs Plan (RHNP) on March 20, 2020, which officially assigns the allocations to cities and counties in the six-county Sacramento region. SACOG's RHNA covers the planning period from 2021 to 2029, and defines the lower income unit categories as follows:

- Very Low-Income Unit: is one that is affordable to a household whose combined gross household income is at or lower than 50 percent of the area median income (AMI).
- Low-Income Unit: is one that is affordable to a household whose combined gross household income is at or between 50 and 80 percent of the AMI.
- Moderate Income Unit: is one that is affordable to a household whose combined gross household income is at or between 81 and 120 percent of the AMI.

[7] California Department of Finance. *Report E-5: Population and Housing Estimates for Cities Counties and the State, January 1, 2021-2024, with 2020 Benchmark*. Released May 1, 2024.

- Above Moderate Income Unit: is one that is affordable to a household whose combined gross household income is at or greater than 120 percent of the AMI.

On November 21, 2019, the SACOG Board of Directors approved RHNA Methodology Option C for the RHNA Methodology Cycle 6 (2021 through 2029 planning period), which provides the number of total housing units that each jurisdiction in the SACOG region must zone for during the eight-year period. Based on the approved RHNA Methodology Option C, the SACOG region requires a minimum of 38,999 new very low-income units and 23,503 new low-income units for the upcoming planning period. SACOG estimates that 8,263 new housing units, including 2,661 very low-income units, 1,604 low-income units, 1,186 moderate-income units, and 2,812 above moderate-income units, would be required in the City of Elk Grove in the 2021-2029 planning period (see Table 4.8-4).[8] The City of Elk Grove City Council adopted the 2021-2029 Housing Element in February 2021 in compliance with the RHNA.

Table 4.8-4
City of Elk Grove RHNA Allocation

Income Level	RHNA Requirement	Percent of Total
Very Low Income (≤50% AMI)	2,661	32.2%
Low Income (>50% AMI, ≤80% AMI)	1,604	19.4%
Moderate Income (>80% AMI, ≤120% AMI)	1,186	14.4%
Above Moderate Income (>120% AMI)	2,812	34.0%
Total	**8,263**	**100.0%**

Source: Sacramento Area Council of Governments, 2020.

4.8.3 REGULATORY CONTEXT

Specific federal regulations do not directly pertain to land use and planning or population and housing of an area. However, a number of existing regulatory controls pertaining to land use, planning, population, and housing, including State and local laws and regulations, are listed below, as applicable.

State Regulations

The following are applicable State regulations related to land use and planning, and population and housing.

Title 14 California Code of Regulations Section 15131

Title 14, California Code of Regulations (CCR) Section 15131, provides that economic or social information may be included in an EIR, but those economic or social effects shall not be considered significant effects on the environment. In an EIR, the lead agency is responsible for researching economic or social changes resulting from a project, which may eventually lead to physical changes in the environment. Such economic or social changes can be used to determine the significance of physical changes on the environment.

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 share is known as RHNA and is based on a RHNP developed by councils of government. The State-mandated RHNA process (Government Code

[8] Sacramento Area Council of Governments. *SACOG Regional Housing Needs Plan Cycle 6 (2021-2029).* Approved March 2020.

Sections 65580 et seq.) requires SACOG to develop a methodology that determines how to divide and distribute an overall allocation that the region receives from the State.

Senate Bill 330

California Senate Bill (SB) 330, "The Housing Crisis Act of 2019," was signed into law by Governor Newsom on October 9, 2019 and became effective January 1, 2020. The bill establishes a statewide housing emergency to be in effect until January 1, 2025. During the housing emergency period, cities and localities in urban areas, including the City of Elk Grove, are generally prohibited from rezoning actions or imposing new development standards that would reduce the zoned capacity for housing, or adopting new design standards that are not objective. In such jurisdictions, the demolition of existing housing units is only permitted if replacement units are provided. The demolition of existing low-income units is only permitted if certain conditions related to affordability and tenant protections are met.

Local Regulations

The following are the local regulations and standards relevant to the CEQA review process with respect to land use and planning/population and housing.

Sacramento Area Council of Governments

SACOG is an association of local governments from six counties and 22 cities within the Sacramento Region. The counties include El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba. SACOG is responsible for the preparation of, and updates to, the MTP/SCS for the region and the corresponding Metropolitan Transportation Improvement Program (MTIP). The MTP/SCS provides a 20-year transportation vision and corresponding list of projects, while the MTIP identifies short-term projects within a seven-year horizon in more detail.

Metropolitan Transportation Plan/Sustainable Communities Strategy

The 2020 MTP/SCS was adopted by the SACOG board on November 18, 2019.[9] The MTP/SCS is a long-range plan for transportation improvements in the region and provides a 20-year transportation vision and corresponding list of projects. The plan is based on projections for growth in population, housing, and jobs. SACOG determines the regional growth projections by evaluating baseline data (existing housing units and employees, jobs/housing ratio, and percent of regional growth share for housing units and employees), historic reference data (based upon five- and ten-year residential building permit averages and historic county-level employment statistics), capacity data (General Plan data for each jurisdiction), and current MTIP data about assumptions used in the most recent MTP/SCS. SACOG staff then meets with each jurisdiction to discuss and incorporate more subjective considerations about planned growth for each area. Finally, SACOG makes a regional growth forecast for new homes and new jobs, based upon an economic analysis provided by a recognized expert in order to estimate regional growth potential based on market analysis and related economic data, which is incorporated into the MTP/SCS. The MTP/SCS projections do not always match local agency general plans, due to the constrained nature of the MTP/SCS, especially as related to transportation funding restrictions and GHG targets for the region. As such, because a development project is not identified in the MTP/SCS does not necessarily mean that the project shall not proceed.

[9] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy*. Adopted November 18, 2019.

City of Elk Grove General Plan

The General Plan is a fundamental planning document that directs future growth, development, and conservation policy and reflects the long-range vision of the community. Specific policies from the City's General Plan relevant to the Project are listed in Table 4.8-5 at the end of this chapter.

City of Elk Grove 2021-2029 Housing Element

As discussed above, SACOG established the 2021-2029 RHNP to assign each city and unincorporated county in the region its fair share of the regional housing need based on a number of factors established by State law (Government Code Section 65584) and regional housing burdens and needs. Consistent with the RHNA, the City of Elk Grove City Council adopted the 2021-2029 Housing Element to identify the community's housing needs; to state the community's goals and objectives with regard to housing production, rehabilitation, and conservation to meet those needs; and to define the policies and programs that the community will implement to achieve the stated goals and objectives.

Rural Area Community Plan

As part of the General Plan, the City maintains various community plans that address a particular sub-area or community within the overall planning area and refine the policies of the General Plan as they apply to the smaller geographic areas. A community plan must contain specific development policies adopted for the identified area and include measures to implement those policies, so that the policies which will apply to each parcel of land can be determined. The Rural Area Community Plan contains policies that provide specific guidance for preserving the unique character of the area and the character's contribution to the community.

City of Elk Grove Municipal Code

The following is an applicable section of the EGMC related to housing and growth.

Elk Grove Municipal Code Section 23.16.100: Special Planning Area

Pursuant to EGMC Section 23.16.100, the SPA process is established as a process whereby the City Council or the Planning Commission may initiate proceedings to regulate property in areas throughout the City that have unique environmental, historic, architectural, or other features which require special conditions not provided through the application of standard zone regulations. The purpose of EGMC Section 23.16.100 is to establish a procedure to initiate or amend SPAs and to provide the method for the City to guide the development of such areas so as to preserve such unique characteristics or provide for a broader mixture of land uses when appropriate. In certain circumstances it may be desirable to provide for a greater range or mixture of uses in an area than would be permitted in the standard land use zones.

4.8.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the Project's potential impacts related to land use and planning, and population and housing. A discussion of the Project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an impact related to land use and planning and/or population and housing is considered significant if the Project would result in any of the following:

- Physically divide an established community;
- 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;
- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Method of Analysis

The following section describes the method of analysis used to evaluate potential impacts of the Project related to land use and planning, and population and housing.

Land Use and Planning

This chapter evaluates the Project's compatibility with existing and planned adjacent land uses and for consistency with the City's plans, policies, and zoning regulations adopted for the purpose of avoiding or mitigating an environmental effect. Physical environmental impacts resulting from the Project are discussed in the respective environmental resource sections of the various technical chapters within this EIR. The following discussion complies with Section 15125(d) of the CEQA Guidelines, which requires that EIRs discuss inconsistencies with adopted local plans as part of the environmental setting. The ultimate determination of consistency will be determined by the City Council.

Population and Housing

The level of significance of the impacts related to population and housing is determined by evaluating whether the Project, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure), would induce substantial unplanned population growth in the project area.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Project in comparison to existing conditions and the standards of significance presented above.

4.8-1 Physically divide an established community. Based on the analysis below, the impact is *less than significant*.

A project risks dividing an established community if the project would introduce infrastructure or alter land use in a way which would change the land use conditions in the surrounding community, impact the community's functionality (e.g., access, transportation, infrastructure), or isolate an existing land use through a physical barrier. The site is currently developed with a single-unit residence and associated accessory structures in the northwest corner of the site, which would be removed as part of future development of the Project. The remainder of the site consists of grassland vegetation. Surrounding existing uses include rural residences and rural estates to the north, across Sheldon Road; undeveloped land and rural residences to the east; rural residences and a school to the southeast; rural residences to the west, across Waterman Road; and a non-profit horse rescue organization and estate residences to the south. The Elliot Springs Subdivision is currently under construction

to the southwest. The Project would include the creation of the Summer Villas SPA, which would allow for the subsequent development of a maximum of 499 age-restricted single-unit residences, as well as various associated improvements, such as a private community recreation center/clubhouse, private park space, trails, private and public open space areas, landscaping, and a number of on- and off-site roadway and utility improvements.

The current General Plan and zoning designations for the site are Rural Residential and the Project would include a General Plan/Rural Area Community Plan Amendment and Rezone to allow for the creation of a SPA on the site. The Project would increase the intensity of development as compared to what was originally zoned for the site; however, the City's planned development of the site is indicative that the site has been envisioned as an extension of the existing surrounding residential uses. Furthermore, the proposed residential uses and open space areas associated with the Project would be consistent with the low-density residential uses, including age-restricted units, and the open space areas associated with the Elliot Springs Subdivision located to the southwest of the site.

The Project would not obstruct any existing or proposed transportation route that provides connectivity in the Rural Area Community Plan area. Finally, although the Project would include installation of off-site water and sewer lines, the utility lines would be sized to accommodate the proposed on-site development, and would not change the land use conditions in the surrounding community or isolate an existing land use. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.8-2 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. Based on the analysis below, the impact is *less than significant.*

The General Plan Guidelines published by the Governor's Office of Land Use and Climate Innovation (formerly the Office of Planning and Research [OPR]) defines consistency as, "An action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment." Therefore, the standard for analysis used in this EIR is based on general agreement with the policy language and furtherance of the policy intent (as determined by a review of the policy context). The determination that the project is consistent or inconsistent with the City of Elk Grove General Plan policies or other City plans and policies, such as the Rural Area Community Plan, is ultimately the decision of the City Council. Furthermore, although CEQA analysis may identify some areas of general consistency with City policies, the City has the ability to impose additional requirements or conditions of approval on a project, at the time of its approval for development entitlements, to bring a project into more complete conformance with existing policies. A discussion of the Project's general agreement

with policy language and furtherance of policy intent is discussed in further detail below.

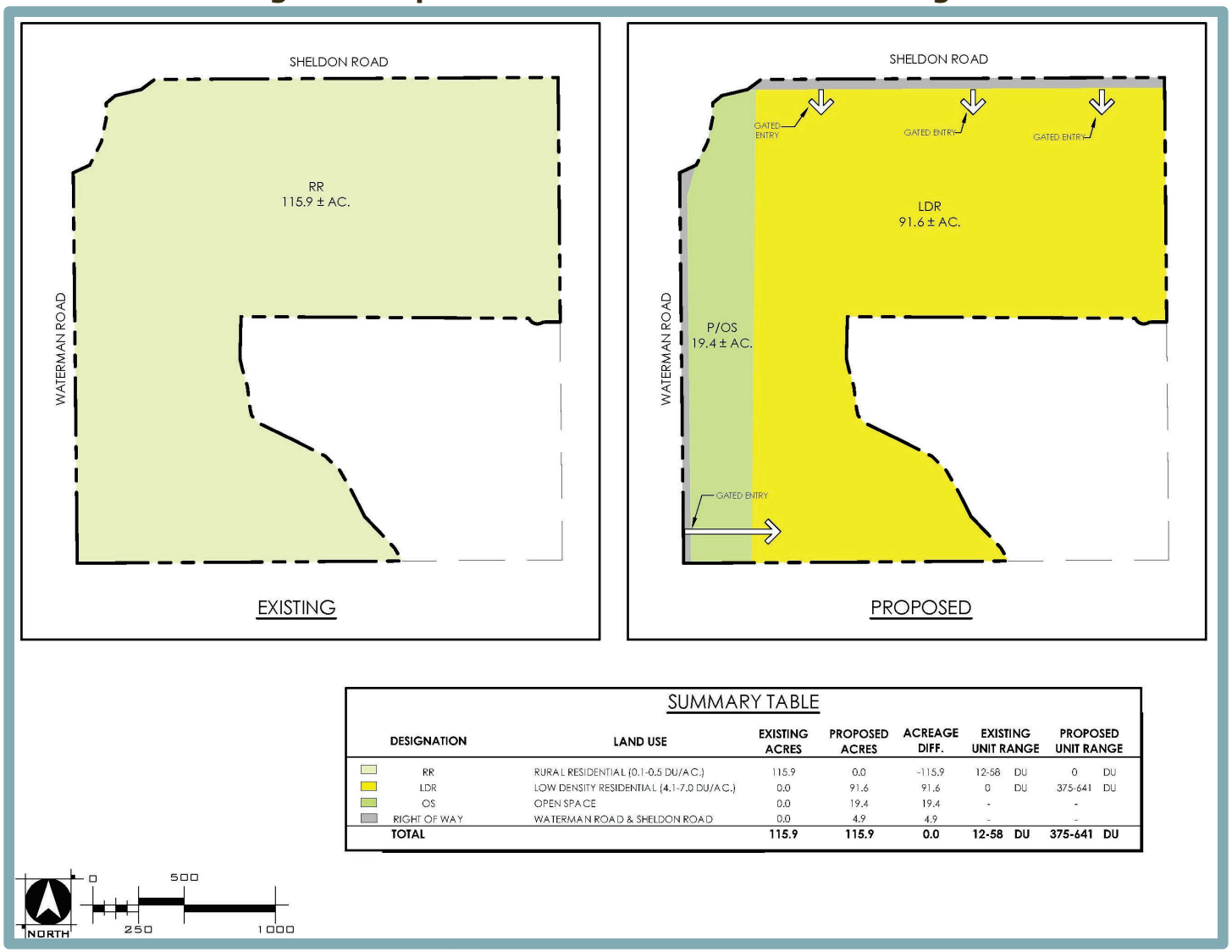
The City of Elk Grove General Plan and EGMC carry out the policies by classifying and regulating the uses of land and structures within the City, consistent with the General Plan. As noted previously, the site is located within the northeastern portion of the City of Elk Grove. Both the Rural Area Community Plan and the City of Elk Grove General Plan designate the site as RR, and the site is zoned AR-2. As discussed above, the RR land use designation allows for a residential density between 0.1 du/ac to 0.5 du/ac, and the AR-2 zoning district implements the RR General Plan designation. Therefore, with a total proposed density of approximately 4.3 du/ac, the Project would not comply with the existing General Plan land use designation and zoning designation of the site. The Project would require approval of a General Plan/Rural Area Community Plan Amendment and a Rezone to allow for the creation of the 115.9-acre Summer Villas SPA. The General Plan/Rural Area Community Plan Amendment would change the General Plan and Rural Community Plan land use designations of the site from RR to Low Density Residential (LDR) and Public/Open Space (P/OS) (see Figure 4.8-1).

The LDR land use designation provides for single-unit residences on lots typically ranging from 6,000 to 10,000 square feet (sf). The allowable residential density for the LDR land use designation ranges from a minimum of 4.1 to a maximum of 7.0 du/ac. It should be noted that in order to preserve the natural features and open space resources existing within the SPA boundaries, the Project may cluster residences beyond the seven du/ac density maximum consistent with General Plan Policy NR-1-9 and General Plan Goal NR-1, which allow such clustering to protect wetlands, stream corridors, scenic areas, or other natural features as open space. Although clustered development could exceed the seven du/ac maximum within the East and West neighborhoods, the overall project density would not exceed the maximum allowable density of the LDR land use designation, as density would be determined for the entire SPA, rather than on a lot-by-lot basis. Within the SPA, a developer would be able to exercise greater flexibility in designing and placing structures, as long as the total density requirement for the SPA is not exceeded.

The P/OS land use designation provides for public and private parks, public plazas, trails, paseos, and similar features that provide off-street connectivity, and similar compatible uses. The P/OS land use designation also allows for commercial recreation facilities principally oriented toward outdoor use. The 19.4-acre Waterman Recreational Open Space area would be located within the proposed P/OS portion of the site and could include several active and passive recreational amenities, including, but not limited to, a publicly accessible multi-use trail connection that would run north-south, parallel with Waterman Road, trail connections, and amenities associated with the private community recreation center/clubhouse such as hard courts (e.g., tennis courts, pickleball courts).

The Project would require a Rezone to change the zoning designation of the site from AR-2 to SPA, as defined by Section 23.16.100 of the EGMC (see Figure 4.8-2).

Figure 4.8-1
Existing and Proposed General Plan Land Use Designations

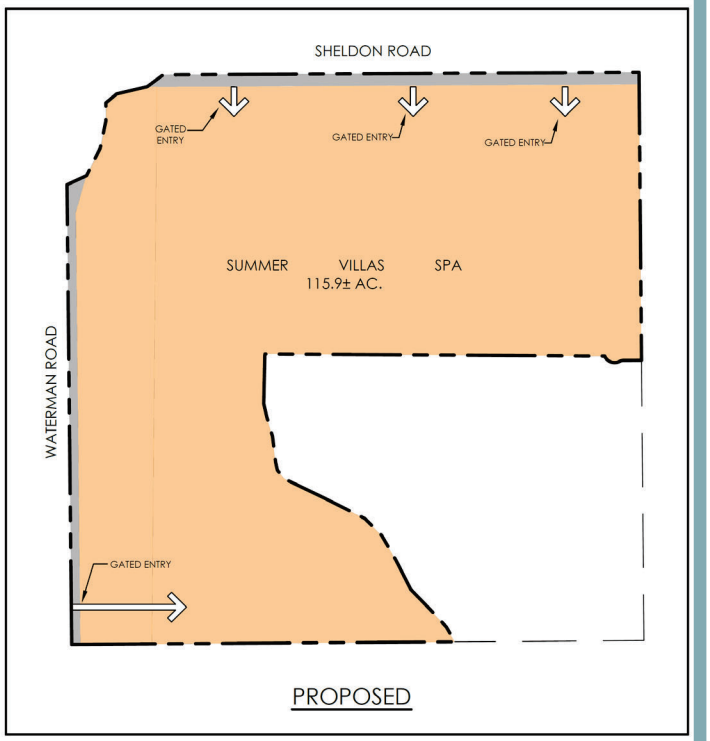


SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING ACRES	PROPOSED ACRES	ACREAGE DIFF.	EXISTING UNIT RANGE	PROPOSED UNIT RANGE
RR	RURAL RESIDENTIAL (0.1-0.5 DU/AC.)	115.9	0.0	-115.9	12-58 DU	0 DU
LDR	LOW DENSITY RESIDENTIAL (4.1-7.0 DU/AC.)	0.0	91.6	91.6	0 DU	375-641 DU
OS	OPEN SPACE	0.0	19.4	19.4	-	-
RIGHT OF WAY	WATERMAN ROAD & SHELDON ROAD	0.0	4.9	4.9	-	-
TOTAL		**115.9**	**115.9**	**0.0**	**12-58 DU**	**375-641 DU**

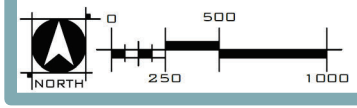
Figure 4.8-2
Existing and Proposed Zoning Designations





SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING AC.	PROPOSED AC.	DIFF.
AR-2	AGRICULTURAL RESIDENTIAL	115.9	0.0	-115.9
SPA	SUMMER VILLAS SPA	0.0	111.0	111.0
RIGHT OF WAY	WATERMAN ROAD & SHELDON ROAD	0.0	4.9	4.9
TOTAL		**115.9**	**115.9**	**0.0**



The approved SPA document would serve as site-specific zoning for the area within the boundaries of the SPA, which includes site-specific development standards and criteria for future development. The requested Rezone would include a text amendment to Section 23.40.020 of the EGMC to add the new SPA district.

In accordance with Section 23.16.100 of the EGMC, SPAs regulate properties in areas throughout the City that have unique environmental, historic, architectural, or other features which require special conditions not provided through the application of standard zone regulations.

Pursuant to EGMC Section 23.16.100(D), the SPA is required to be established by ordinance with mandatory contents which include the following: a list of permitted, conditionally permitted, and prohibited uses; performance and development requirements relating to yards, lot area, intensity of development on each lot, parking, landscaping, and signs; other design standards appropriate for the specific site and development; and reasons for establishment of the SPA land use zone on the particular property. The Summer Villas SPA ordinance would require review and approval by the Elk Grove City Council.

If approved, the Summer Villas SPA ordinance, the SPA, the City of Elk Grove General Plan, EGMC, and Citywide Design Guidelines would regulate all future development applications, subdivision maps, and site plans proposed within the geographic boundaries of the site. The SPA functions as a special purpose zoning district under Chapter 23.40 of Title 23, Zoning, of the EGMC. All existing City land use policies, design and development standards, and roadway improvement standards would remain in effect, except as provided within the SPA. In instances where the SPA is different or otherwise contrary to the other development standards or codes of the City of Elk Grove, the SPA would prevail and be the controlling document for future development of the site in accordance with Section 23.16.100(H) of the EGMC. Approval of the foregoing entitlements for the Project are discretionary actions subject to approval by the City of Elk Grove City Council. Should the City Council approve the requested entitlements, the Project would be rendered consistent with the City's General Plan and the EGMC.

Case law interpreting the Planning and Zoning Law (Gov. Code, Section 65000 et seq.) makes it clear that: (i) the ultimate meaning of such policies is to be determined by the elected legislative body or a lower tier decision-making body such as a planning commission, as opposed to city staff and EIR consultants, applicants, or members of the public; and (ii) the decision-making body's interpretations of such policies will prevail in court (if challenged) if the interpretations are "reasonable," even though other reasonable interpretations are also possible (see *No Oil, Inc. v. City of Los Angeles* (1987) 196 Cal.App.3d 223, 245-246, 249). Courts also have recognized that, because general plans often contain numerous policies adopted to address differing or competing legislative goals, a development project may be "consistent" with a general plan, taken as a whole, even though the project appears to be inconsistent or is arguably inconsistent with some specific policies within a given general plan (*Sequoyah Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 719). Furthermore, courts strive to "reconcile" or harmonize seemingly disparate general plan policies to the extent reasonably possible (*No Oil*, *supra*, 196 Cal.App.3d at p. 244), and agencies should do the same.

Some policies, in fact, may be irreconcilable. As the courts have said, "it is beyond cavil that no project could completely satisfy every policy stated in the [General Plan], and that state law does not impose such a requirement" (*Sequoyah, supra*, 23 Cal.App.4th 704, 719, citing *Greenebaum v. City of Los Angeles* (1984) 153 Cal.App.3d 391, 406-407 and 59 Ops.Cal.Atty.Gen. 129, 131 (1976)). "A general plan must try to accommodate a wide range of competing interests—including those of developers, neighboring homeowners, prospective homebuyers, environmentalists, current and prospective business owners, jobseekers, taxpayers, and providers and recipients of all types of city-provided services—and to present a clear and comprehensive set of principles to guide development decisions. Once a general plan is in place, it is the province of elected city officials to examine the specifics of a proposed project to determine whether it would be 'in harmony' with the policies stated in the plan" (*Sequoyah*, *supra*, 23 Cal.App.4th at p. 719, citing *Greenebaum*, *supra*, 153 Cal.App.3d at p. 406). Nevertheless, proposed projects are required to be consistent with all General Plan policies that are "fundamental, mandatory, and clear" (*Families Unafraid to Uphold Rural El Dorado County v. El Dorado County Bd. of Supervisors* (1998) 62 Cal.App.4th 1332, 1341-1342; *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 782 ["[a] project is inconsistent if it conflicts with a general plan policy that is fundamental, mandatory, and clear"]).

From a policy perspective, Table 4.8-6 at the end of this chapter demonstrates that the Project would be generally consistent with the policies in the General Plan adopted for the purpose of avoiding or mitigating an environmental effect. While the site is located within the Rural Area Community Plan area, the policies for the Community Plan area are intended to recognize and support the continuation of the rural lifestyle and agricultural heritage necessary to preserve the character of the area. As such, the Rural Area Community Plan policies are not adopted for the purpose of avoiding or mitigating an environmental effect. Pursuant to the court ruling in *Preserve Poway v. City of Poway* (2016) 245 Cal.App.4th 560 576-582, psychological and social impacts are not considered significant effects on the environment and, thus, are not a CEQA issue. However, the City Council may consider such policies in their deliberations on the Project, separate from the CEQA document.

Based on the above, the Project would not cause a significant environmental impact due to conflicts with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (including the policies discussed in Table 4.8-5), and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.8-3 Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure). Based on the analysis below, the impact is *significant and unavoidable*.

Growth can be induced in a number of ways, including through the elimination of obstacles to growth or through the stimulation of economic activity within the region. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped. The following sections describe potential effects related to direct and indirect population growth associated with implementation of the Project.

Direct Population Growth

The proposed 499 age-restricted single-unit residences would increase the available housing opportunities within the City of Elk Grove, which would increase population in the area. Using the 3.09 persons/household average household size for the City (see Table 4.8-3) the Project would house an estimated 1,542 new residents (3.09 persons/unit x 499 units). Use of the persons per household rates identified by the U.S. Census Bureau would provide a conservative analysis. Because the units would be age-restricted, the average household size within the SPA is anticipated to be less than the City average.

The site is located within the General Plan planning area and is designated by the General Plan as RR. The site is also located within the Rural Area Community Plan. The 2020 MTP/SCS identifies the Rural Area Community Plan as a Rural Residential Community, located outside of urbanized areas. Therefore, development of the site with urban uses has not been previously anticipated.

As discussed above, according to the 2021-2029 Housing Element, the City of Elk Grove population is projected to reach over 202,000 residents by 2040. In addition, the City has anticipated buildout of the City with a total of 101,931 dwelling units and a population of 329,238 residents.[10] However, according to the 2020 MTP/SCS, between 2016 and 2040, the Preferred Scenario growth for Rural Residential Communities within Elk Grove would be an increase from 1,210 to 1,600 housing units.[11]

Table 4.8-5 below provides a comparison of the development potential of the site based on the maximum allowable units under the existing General Plan land use and zoning designations, and the proposed number of units associated with the proposed General Plan land use and zoning designations.

Table 4.8-5
Site Development Potential

Scenario	Land Use Designation	Zoning	Development Potential	Population Potential[1]
Existing	RR	AR-2	58 units	180 residents
Proposed	LDR, P/OS	SPA	499 units	1,542 residents

[1] Calculated using the 3.09 persons/household average household size for the City.

[10] City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 2.0-12]. July 2018.
[11] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* [Appendix C, pg. 9]. Adopted November 18, 2019.

Based on Table 4.8-5, the General Plan/Rural Area Community Plan Amendment and Rezone associated with the Project would result in 441 additional units and 1,362 additional residents as compared to what was anticipated for the site in the General Plan. The 441 additional units associated with the Project would exceed the anticipated housing unit growth from 2016 to 2040 in Rural Residential Communities, pursuant to the 2020 MTP/SCS.

It should be noted that potential population growth impacts associated with development of the Project and other future cumulative development projects in the City are considered in further depth within Impact 4.8-5 below.

Indirect Population Growth

The Project could result in an on-site permanent population increase of approximately 1,542 residents, as compared to the current on-site population associated with the existing single-unit residence. The new residential population would likely support local businesses and services in the area, fostering economic growth. While construction of the Project would result in increased employment opportunities in the construction field, which could potentially result in increased permanent population and demand for housing in the vicinity of the site, employment patterns of construction workers is such that construction workers would not likely, to any significant degree, relocate their households as a result of the construction-related employment opportunities associated with the Project. Permanent employment opportunities created by the Project could include household and landscape maintenance jobs and/or jobs associated with operation of the age-restricted residential community. In addition, the Project could generate jobs associated with the recreational uses and proposed clubhouse which would include ancillary uses such as privately operated retail (i.e., coffee shop, café, etc.). New jobs generated by such uses would not be substantial in number and would also likely be filled by the local employee base.

The residential population generated by the Project would also result in an increased demand for public services. However, as discussed in Chapter 4.10, Public Services and Utilities, the Project's demand for public services could be accommodated by existing services and would not create a need for new or altered governmental facilities. Furthermore, the infrastructure included in the Project would be sized to accommodate only the Project and would not add capacity beyond what is needed to serve the site. The utility improvements included in the Project would be designed to serve the proposed residences only, and would not induce any significant indirect population growth within the City of Elk Grove.

Conclusion

Based on the above, new infrastructure improvements associated with the Project would be sized to accommodate only the Project. However, the Project would include development that would result in direct on-site unplanned population growth. Population growth resulting from the Project would not be within the SACOG or City of Elk Grove growth estimates for the Project area. As a result, the Project would be considered to induce substantial unplanned population growth, and a ***significant*** impact would result. Notwithstanding, population growth, in and of itself, is not a direct physical effect on the environment. The physical impacts associated with population growth resulting from the Project are discussed throughout this EIR. In addition,

potential impacts related to growth inducement are discussed further within Chapter 6, Statutorily Required Sections, of this EIR, consistent with CEQA Guidelines Section 15126.2(d).

Mitigation Measure(s)

Feasible mitigation does not exist to reduce the above impact to a less-than-significant level. Therefore, the impact would remain *significant and unavoidable*. However, it should be noted that the Legislature found that, "[a]ccording to reports and data, California has accumulated an unmet housing backlog of nearly 2,000,000 units and must provide for at least 180,000 new units annually to keep pace with growth through 2025." (Gov. Code, Section 65589.5(a).)" The Legislature enacted the Housing Crisis Act of 2019 (Stats. 2019, ch. 654), the centerpiece of which is Government Code section 66300. The Legislature intends that public agencies, in regulating private activities affecting the environment, "shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian." (Public Resources Code [PRC] Section 21000(g).) PRC Section 21159.26 states that "[w]ith respect to a project that includes a housing development, a public agency may not reduce the proposed number of housing units as a mitigation measure or project alternative for a particular significant effect on the environment if it determines that there is another feasible specific mitigation measure or project alternative that would provide a comparable level of mitigation. This section does not affect any other requirement regarding the residential density of that project." As such, the development of 499 active adult residential units would have a positive impact from the perspective of the housing crisis in the State.

4.8-4 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Based on the analysis below, the impact is *less than significant*.

While a single-unit residence with accessory structures in the northwest corner of the site would be removed as part of development of the Project, the construction of 499 active adult residential units would create a net gain of residential units. Therefore, a ***less-than-significant*** impact would occur related to displacing substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the Project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Additional detail regarding the cumulative setting is included in Chapter 6, Statutorily Required Sections, of this EIR.

4.8-5 Cumulative unplanned population growth. Based on the analysis below, the cumulative impact is *cumulatively considerable* and *significant and unavoidable*.

The buildout of the Rural Area Community Plan area was anticipated to result in population growth within the plan area through the development of rural developments, including the site. As described further in Chapter 6, Statutorily Required Sections, of this EIR, several new developments have been approved or are being built within the Project area, including the Elliott Springs Subdivision, Summer Park Estates, and the Pleasant Grove Estates Rezone and Subdivision Map. In addition, other reasonably foreseeable projects within the Project area are being processed by the City, including the Summer Flats Project, Summer Meadows Map and Rezone, and 9826 Bond Road Map.

The 2020 MTP/SCS, prepared by SACOG, provides regional growth projections for the six-county Sacramento region, including the City of Elk Grove and Rural Residential Areas within the City. The MTP/SCS identifies the Rural Area Community Plan as a Rural Residential Community. As discussed above, the 2020 MTP/SCS projected that a total of 390 housing units would be developed in Rural Residential Areas between 2016 and 2040;[12] thus, development of the Project with 499 residential units, in combination with other cumulative development in the City of Elk Grove and the Rural Area Community Plan area, would exceed what is identified in the MTP/SCS. The MTP/SCS is not a land plan or regionally adopted land use policy, and projects that are inconsistent with the MTP/SCS are not prohibited from proceeding. Nonetheless, for the purposes of this analysis, exceeding the projections identified in the MTP/SCS would be considered a significant cumulative impact.

Population growth itself does not constitute a significant physical environmental effect. Rather, the determination of significance is based on whether population growth associated with a project has been previously planned for, and whether such growth could result in indirect impacts from associated development. The cumulative analysis within each technical chapter of this EIR evaluates the physical environmental impacts of cumulative development.

Based on the above, the incremental contribution of the Project to the significant cumulative impact associated with planned and potential development in the City of Elk Grove and the Rural Area Community Plan would be ***cumulatively considerable***.

Mitigation Measure(s)

Feasible mitigation does not exist to reduce the above potential impact to a less-than-significant level. Therefore, the impact would remain *cumulatively considerable* and *significant and unavoidable*.

[12] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* [Appendix C, pg. 9]. Adopted November 18, 2019.

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
Land Use		
Policy LU-5-1	Ensure that new development reflects the City's desire to create a high-quality, attractive, functional, and efficient built environment.	As discussed within Chapter 4.1, Aesthetics, of this EIR, future development applications within the Summer Villas SPA would be subject to the City's Design Review process, which would ensure that future development would comply with all applicable standards. In addition, the Project would be subject to Mitigation Measure 4.1-3, which requires submission of a lighting plan for review and approval by the City. The lighting plan shall comply with EGMC Chapter 23.56 and the applicable standards of the Summer Villas SPA, which would ensure that project lighting protects public health, safety and general welfare and preserves the natural nighttime outdoor environment. With respect to efficiency of the proposed development, as discussed in Chapter 4.2, Air Quality, Greenhouse Gas Emissions, and Energy, the Project would be required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the California Building Standards Code (CBSC) and California Air Resources Board (CARB) standards, which would ensure that the future uses would be designed to be energy efficient to the maximum extent practicable. Adherence to the most recent California Green Building Standards Code (CALGreen Code) and the Building Energy Efficiency Standards would ensure that the proposed development on-site would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. In addition, State regulations promote the generation of renewable energy and encourage energy efficiency through requirements placed on utility providers and strict development standards. EGMC Chapter 16.07 would ensure compliance with State laws and regulations related to electric vehicle charging stations. Additionally, Mitigation Measure 4.2-7(a) requires the Project to meet the current CALGreen Tier 2 standards regarding electric vehicle charging, which would be more stringent than the current standards and regulations listed above. Furthermore, with respect to water use efficiency, as discussed in Chapter 4.10, Public Services and Utilities, the Project would be subject to Chapter 14.10 of the EGMC, which incorporates water efficiency standards equivalent to or

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
		greater than the State Model Water Efficient Landscape Ordinance (MWELO). Requirements for establishing water efficient landscaping generally include the use of compost and mulch, installation of climate adapted plants, restrictions on turf areas, and requirements for irrigation systems. The City's Standard Construction Specifications provide specific recommendations and requirements for new landscaping and for irrigation systems such as water supply, trenching, pipes, testing, and installation. Compliance with the State's MWELO would be ensured during the Design Review process through submission of a landscaping plan to the City for review and approval, and would ensure that irrigation water consumption is minimized and occurs in compliance with the City's standards. In addition, the Project would incorporate design features which would result in exceeding Title 24 Building Envelope Energy Efficiency Standards by 15 percent and would result in a 10 percent reduction in indoor water use and a 25 percent reduction in outdoor water use beyond code compliance.
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.	As discussed under Impact 4.10-6 within Chapter 4.10, Public Services and Utilities, of this EIR, the existing overhead utility lines along the site's northern boundary, to which the Project would connect, would be undergrounded as required by EGMC Section 23.63.020. Consistent with Policy LU-5-3.b, the overhead lines along Waterman Road to the west of the site would not be required to be undergrounded. All other utility improvements, including the extension of water and sanitary sewer infrastructure, would be installed underground within roadways.
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.	As discussed further in Chapter 3, Project Description, of this EIR and pursuant to EGMC Section 23.16.100(D), the Summer Villas SPA is required to be established by ordinance with mandatory contents which include the following: a list of permitted, conditionally permitted, and prohibited uses; performance and development requirements relating to yards, lot area, intensity of development on each lot, parking, landscaping, and signs; other design standards appropriate for the specific site and development, including for low-density housing and the proposed residential care facility; and reasons for establishment of the SPA land use zone on the particular property. The Summer Villas SPA ordinance would require review and approval by the Elk Grove City Council. Therefore, the City would have an opportunity to review and require design standards to implement the SPA, with which the Project would comply.

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
Policy LU-5-9	Emphasize placemaking design principles in new development projects.	Please see Response to Policy LU-5-4 above.
Mobility		
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 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: (i) Land Use – Development projects shall demonstrate that the VMT	As discussed in Chapter 4.11, Transportation, of this EIR, Fehr & Peers re-estimated the vehicle miles traveled (VMT) conditions for 2020 to provide a consistent basis of evaluating the Project, a key requirement of SB 743, in order to ensure that the effects of the Project are accurately identified. Using the EGSIM20 Travel Demand Model, Fehr & Peers updated the existing conditions to reflect 2020 conditions, as opposed to the 2015 conditions presented in General Plan Policy MOB-1-1. The Project was determined to result in VMT in excess of the applicable thresholds of significance (15 percent reduction from the updated existing conditions), and the Project would be subject to all feasible mitigation measures necessary to reduce the VMT. While the effectiveness of the mitigation measures cannot be quantified at this time and subsequent vehicle trip reduction effects cannot be guaranteed, consistent with Policy MOB-1-1, a Statement of Overriding Considerations would be prepared for the Project, and the City may consider a decision of the Project, provided some other stated form of public objective, including specific economic, legal, social, technological or other considerations, is achieved by the Project. The Project is located within the City Limits, and is not subject to the Study Area VMT thresholds.

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy	Project Consistency
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, which incorporates the 15 percent reduction from 2015 conditions. (ii) 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 8,066,247 VMT (total daily VMT). (iii) 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. (b) Transportation Projects – Transportation projects likely to lead to measurable increase in VMT shall: (i) Not increase VMT per service population. Projects must demonstrate that the VMT effect of the project does not exceed the project's baseline condition VMT. (ii) Be consistent with the regional projections and plans. The project	

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
	shall be specifically referenced or listed in the region's MTP/ SCS and represented in accompanying the regional travel forecasting model. Subject transportation projects that are not consistent with the MTP/SCS shall instead demonstrate that the cumulative VMT effect does not increase regional VMT per service population.	
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.	Impacts to bicycle, pedestrian, and transit facilities are discussed under Impacts 4.11-2 and 4.11-3 in Chapter 4.11, Transportation, of this EIR. As discussed therein, the Project would be subject to Mitigation Measures 4.11-2 and 4.11-3, which would require the Project to construct Class II bicycle facilities along the Project frontage on Sheldon Road between Waterman Road and Bradshaw Road; construct a Class I multi-use path along the Project frontage on Sheldon Road between Waterman Road and Bradshaw Road; contribute to the planned development of the Class I multi-use path along Waterman Road between Bond Road and Calvine Road and along Sheldon Road between Elk Grove Florin Road and Waterman Road, consistent with the City's Bicycle, Pedestrian, and Trails Master Plan; coordinate with the City of Elk Grove to create a Communities Facilities District (CFD) to fund on-demand transit; and fund and implement necessary improvements to transit stops amenities (i.e., shelters) near the site. In addition, as discussed further in Chapter 3, Project Description, of this EIR, the recreational open space could include several active and passive recreational amenities. Such recreational amenities would include, but are not limited to, a publicly accessible multi-use trail connection that would run north-south, parallel with Waterman Road, as well as trail connections to the existing trail system. According to the Summer Villas SPA, the open space trails or pedestrian paseos between homes would provide walkways that connect to the proposed clubhouse and recreation center.
Policy MOB-3-1	Implement a balanced transportation system using a layered network approach to building complete	Please see Response to Policy MOB-1-2. The street system within the SPA would be designed to follow a modified grid pattern with internal streets,



Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
	streets that ensure the safety and mobility of all users, including pedestrians, cyclists, motorists, children, seniors, and people with disabilities.	sidewalks, and paseos promoting walkability within the active adult community. In addition, the Project would be constructed in accordance with the City of Elk Grove Improvement Standards and Design Guidelines to ensure that the proposed residential subdivision and non-subdivision public right-of-way (ROW) and private street improvements are designed to meet or exceed uniform levels of sound engineering practice. The design criteria address speed, sight distance, minimum and maximum roadway grade, minimum curve radius, and lighting. Because specific development is not currently proposed, details on the types of intersection control at the proposed gated entries is currently unknown. Once specific development proposals come forward, the Project access points would be analyzed to include appropriate intersection control to minimize conflicting movements and discourage unsafe maneuver. Appropriate site distance and storage capacity shall be provided at intersections. The distance of entries from the major intersection of Sheldon Road and Waterman Road shall also be analyzed for safe queuing and sight distance. The Project shall work with the City of Elk Grove to finalize geometric design at intersections in accordance with the City guidelines.
Policy MOB-3-2	Support strategies that reduce reliance on single-occupancy private vehicles and promote the viability of alternative modes of transport.	As discussed under Impact 4.11-4 in Chapter 4.11, Transportation, the Project would be subject to Mitigation Measure 4.11-3, which requires implementation of Mitigation Measure 4.11-4, which would ensure the Project shall (1) approve (a) the formation of a new or annexation into an existing community facilities district (CFD) and (b) an annual CFD special tax; or (2) deposit a sum money, as determined by the City, sufficient for the City and/or SacRT or another service provider to fund a fair share portion of the costs of providing pedestrian and bicycle facility improvements, on-demand transit services, and community based travel planning (CBTP) and assistance. Such improvements would reduce the number of vehicle trips. Please also see Response to Policy MOB-1-2.
Policy MOB-3-4	As new roads are constructed, assess how the needs of all users can be integrated into the street design based on the local context and functional classification.	Please see Response to Policy MOB-3-1.
Policy MOB-3-6	Execute complete streets design in accordance with neighborhood context and consistent with specific	Please see Response to Policy MOB-3-1.

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
	guidance in community plans or area plans, as applicable.	
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.	Please see Response to Policy MOB-1-2.
Policy MOB-3-11	Design and plan roadways such that the safety of the most vulnerable user is considered first using best practices and industry design standards.	Please see Response to Policy MOB-3-1.
Policy MOB-4-1	Ensure that community and area plans, specific plans, and development projects promote 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.	Please see Response to Policy MOB-1-2 and Policy MOB-3-1.
Policy MOB-4-3	Prioritize infrastructure improvements that benefit bicycle and pedestrian safety and convenience over vehicle efficiency improvements within and near community facilities, activity centers, and other pedestrian-oriented areas.	Please see Response to Policy MOB-1-2 and Policy MOB-3-1.
Policy MOB-4-4	Employ the recommendations and guidelines in the Bicycle, Pedestrian, and Trails Master Plan when planning and designing bicycle, pedestrian, and trail facilities and infrastructure, including updates to the Capital Improvement Program.	Please see Response to Policy MOB-1-2.
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 high-frequency transit alignment and other major transit corridors.	Please see Response to Policy MOB-1-2.
Policy MOB-5-8	Maintain and enhance transit services throughout the City in a manner that ensures frequent, reliable,	Please see Response to Policy MOB-1-2.

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
	timely, cost-effective, and responsive service to meet the City's needs. Enhance transit services where feasible to accommodate growth and transit needs as funding allows.	
Historic and Cultural Resources		
Policy HR-1-1	Encourage the appropriate adaptive reuse of historic resources and buildings.	As discussed under Impact 4.4-1 within Chapter 4.4, Cultural and Tribal Cultural Resources, of this EIR, the site contains previously documented 230-Kv Hurley-Tracy Transmission Line (P-34-001102), as well as three newly recorded cultural resources, including a dairy ranch complex (NIC-2023-Sheldon-01), a section of PG&E 230-Kv transmission line (NIC-2023-Sheldon-02), and a section of Western 230-Kv transmission line (NIC-2023-Sheldon-03). According to the Cultural Resources Investigation prepared for the Project, the dairy ranch complex does not appear to meet the criteria for consideration as an historic property, historical resource, or unique archaeological resource. It should be noted that the Historic Dairy Ranch Complex is not part of the Elk Grove Register. Regardless of the potential eligibility of the towers and transmission lines on the site, the Project would be designed to avoid the towers and would not impact the towers or transmission lines or any elements of the towers and lines that could contribute to their eligibility for the California Register of Historical Resources (CRHR) and/or National Register of Historic Places (NRHP) as individual electric distribution systems or a contributing element to a system. In addition, the Project would be subject to Mitigation Measure 4.4-1, which requires that a cultural resources study be conducted prior to any off-site improvements to determine if any cultural resources are present. If cultural resource site indicators are found as a result of the study, such resources would be protected and preserved to the extent feasible and would be considered for inclusion on the Elk Grove Register.
Policy HR-1-2	Strive to preserve historic buildings and resources through adaptive re-use.	Please see Response to Policy HR-1-1.
Policy HR-1-3	Encourage efforts that prevent the misuse, disrepair, and demolition of historic resources and buildings.	Please see Response to Policy HR-1-1.
Policy HR-2-1	Protect and preserve prehistoric and historic archaeological resources throughout the City.	Please see Response to Policy HR-1-1. In addition, as discussed in Chapter 4.4, Cultural and Tribal Cultural Resources, the field survey conducted as part of the Cultural Resources Investigation did not detect unknown archaeological resources or human remains. Furthermore, previous cultural resource studies

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
		that have encompassed the site did not identify human remains within the site or vicinity. While, a previously documented isolated precontact pestle (P-34-001104) is located within the site, according to the Cultural Resources Investigation, the precontact pestle is an isolated artifact, and, therefore, is not eligible for inclusion on the NRHP or CRHR, nor is the site included on the Elk Grove Register. Nonetheless, the potential for encountering previously unidentified buried archaeological resources or human remains within the site or off-site improvement areas cannot be entirely ruled out, as the Project would include ground-disturbing activities, such as excavation associated with construction of the proposed structures, as well as new building foundations and trenching for new utility lines. Thus, the Project would be subject to Mitigation Measures 4.4-2(a) through (e), which require prevention and minimization measures in the case of accidental discovery of archeological resources, and further evaluation of such resources should they be discovered.
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.	As discussed in Chapter 4.4, Cultural and Tribal Cultural Resources, of this EIR, a search of the California Historical Resources Information System (CHRIS) and the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) were conducted as part of the Cultural Resources Investigation prepared for the Project. The NAHC returned negative results, indicating that known tribal cultural resources are not present within the site. In addition, in compliance with Assembly Bill (AB) 52 and SB 18, Project notification letters were distributed by the City of Elk Grove on October 10, 2023 and October 12, 2023, respectively. Both the AB 52 and SB 18 letters were sent to representatives of the Buena Vista Rancheria of Me-Wuk Indians, Chicken Ranch Rancheria of Me-Wuk Indians, Ione Band of Miwok Indians, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Tsi Akim Maidu, United Auburn Indian Community of the Auburn Rancheria, and Wilton Rancheria. On November 3, 2023, the Wilton Rancheria responded to the notification letter, providing a copy of the Wilton Rancheria Inadvertent Discovery Treatment Plan for projects in Elk Grove and confirming that a representative of Wilton Rancheria would plan a Tribal Survey of the site. The Inadvertent Discovery Treatment Plan is included as Mitigation Measure 4.4-2(a) of this EIR. Responses from other notified tribes were not received.

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
Policy HR-2-3	Identify and evaluate local archaeological resources for inclusion in the National Register of Historic Places.	As discussed in Chapter 4.4, Cultural and Tribal Cultural Resources, of this EIR, a CHRIS and NAHC SLF search were prepared as part of the Cultural Resources Investigation prepared for the Project. A previously documented isolated precontact pestle (P-34-001104) is located within the site. However, according to the Cultural Resources Investigation, the precontact pestle is an isolated artifact, and, therefore, is not eligible for inclusion on the NRHP or CRHR. In addition, the field survey conducted as part of the Cultural Resources Investigation did not detect unknown archaeological resources or human remains. However, the potential for encountering previously unidentified buried archaeological resources or human remains within the site cannot be entirely ruled out, as the Project and associated off-site improvements would include ground-disturbing activities. Thus, the Project would be subject to Mitigation Measures 4.4-2(a) through (e), which require prevention and minimization measures in the case of accidental discovery of archeological resources and further evaluation of such resources should they be discovered.
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.	Please see Response to Policy HR-1-1. According to the Cultural Resources Investigation prepared for the Project, three existing structures have been identified within 0.5-mile of the site. Future development applications within the Summer Villas SPA would be subject to the City's Design Review process, which would ensure that future development would comply with all applicable standards and would not be incompatible with any adjacent existing historic structures in terms of scale, massing, building material, and general architectural treatment.
Parks and Trails		
Policy PT-1-1	Work in conjunction with the CCSD to provide parks and recreation services for Elk Grove residents in accordance with the Parks and Recreation Master Plan, the Park Design Principles, and the Bicycle, Pedestrian, and Trails Master Plan and any successor policies or regulations in these or any other documents.	Please see Response to Policy MOB-1-2. As discussed under Impact 4.10-4 within Chapter 4.10, Public Services and Utilities, of this EIR, EGMC Chapter 22.28 requires dedication of land for park or recreational purposes, or a fee paid in lieu thereof, or a combination of both, as a future condition of approval for the proposed residential developments. The Project would include 19.4 acres of recreational open space, which would include several active and passive recreational amenities such as trails and a recreation center/clubhouse, as well as preservation of 20.3 acres of open space surrounding Laguna Creek. The Project does not include any dedicated parkland; thus, payment of in-lieu fees would be required to contribute a fair-share portion of funds for expansion of parkland and recreation facilities required to serve new development in the City.

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
		EGMC Section 22.28.50 states that the City may grant credit for private open space and/or local recreation facilities in planned unit developments, including SPAs, if the property is located within the Cosumnes Community Services District (CCSD) jurisdiction. Such credit determination shall be made at the joint discretion of the City and CCSD, and shall be subtracted from the dedication or fees, or both.
Policy PT-1-3	Require the provision of park land at a minimum of 5 acres per 1,000 residents, consistent with the Quimby Act.	As discussed under Impact 4.10-4 within Chapter 4.10, Public Services and Utilities, of this EIR, based on the park factor acreage requirements, the Project would be required to provide a minimum of approximately 7.71 acres of parkland. The Project does not include any dedicated parkland; thus, payment of in-lieu fees would be required to contribute a fair-share portion of funds for expansion of parkland and recreation facilities required to serve new development in the City. Please see Response to Policy PT-1-1.
Policy PT-1-6	Work with the CCSD to provide designated park and open space areas in growth areas, and require developers to incorporate open space where appropriate as a condition of project approval.	Please see Response to Policy PT-1-1.
Policy PT-1-10	Design projects adjacent to open space areas in a manner that protects the integrity and function of the open space area.	The Project includes the Laguna Creek Open Space area, which is a 20.3-acre area that would allow for the preservation of the Laguna Creek corridor and sensitive on-site wildlife habitat. The open space area also provides for the containment and continued functionality of the 100-year floodplain.
Policy PT-1-11	In land uses adjacent to natural open space areas, provide on-site landscaping as a transition to natural habitats to the extent feasible.	Interior lots within the Active Adult Neighborhoods could be designed such that traditional rear yard fencing is eliminated to allow rear yard paseos or mid-lot paseos with enhanced landscaping. Landscaped paseo lots would be designated for landscaping, drainage features, and to provide residents with access to pedestrian pathways. Site-specific fencing standards included in the SPA would require that fencing along a paseo or open space/recreational open space shall not exceed six feet in height and shall either be six feet open view material or five feet open view material above a one-foot solid masonry wall. As such, landscaping and fencing requirements, which would be reviewed during the City's Design Review process, would allow for a transition from open space to developed areas.
Policy PT-1-12	Where feasible, provide pedestrian, bicycle, and equestrian trails in open space areas, with an emphasis on trail connections to area-wide systems.	Please see Response to Policy MOB-1-2.



Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
Policy PT-1-13	Locate streets and other public infrastructure improvements so as to minimize intrusion on open space areas, particularly wetlands.	The Project would include 19.4 acres of recreational open space and would preserve 20.3 acres of open space surrounding Laguna Creek, which would avoid the majority of the on-site wetland features. However, as discussed under Impact 4.3-10 within Chapter 4.3, Biological Resources, of this EIR, the Project may result in impacts to both on-site and off-site seasonal wetland features. Implementation of Mitigation Measures 4.3-10(a) through 4.3-10(c) would reduce impacts related to wetlands to a less-than-significant level.
Policy PT-2-5	Increase and improve access points and connections to open space areas from local and regional trails.	Please see Response to Policy MOB-1-2.
Natural 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.	As discussed in Chapter 4.3, Biological Resources, of this EIR, a wide range of mitigation would be required to minimize the Project's potential adverse effects to habitat for special-status species. For example, mitigation measures have been set forth therein to ensure that on-site surveys for special-status plant and wildlife species are conducted prior to commencement of construction activities and, if species are identified during such surveys, appropriate procedures are carried out to avoid or reduce impacts. In addition, please see Response to Policy PT-1-10.
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.	As discussed under Impact 4.3-10 in Chapter 4.3, Biological Resources, of this EIR, a total of approximately 6.12 acres of aquatic resources were delineated within the Biological Resources Assessment study area in accordance with the U.S. Army Corp of Engineers (USACE) Sacramento District's Minimum Standards for Acceptance of Preliminary Wetlands Delineations. The Project may result in impacts to seasonal wetlands, seasonal wetland swales, vernal pools, small portions of Laguna Creek, detention basins, ephemeral drainages, and/or roadside ditches. Impacts to the detention basins, roadside ditches, and Laguna Creek tributary within the off-site areas may be mostly temporary, but the impacts to other feature types would likely be mostly permanent. If the USACE or Regional Water Quality Control Board (RWQCB) takes jurisdiction over the aquatic resources, impacts would need to be assessed for the Project. As such, if determined necessary, the Project would be required to obtain a Section 404 permit from the USACE and a Section 401 permit from the RWQCB and would be subject to all the conditions set forth by said permits. The Project would be subject to Mitigation Measure 4.3-10(b), which requires that waters that would be lost or disturbed shall be restored, replaced or rehabilitated on a



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Policy		Project Consistency
		"no-net-loss" basis. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods acceptable to the USACE.
Policy NR-1-5	Recognize the value of naturally vegetated stream corridors, commensurate with flood control and public desire for open space, to assist in removal of pollutants, provide native and endangered species habitat and provide community amenities.	Please see Responses to Policy MOB-1-2, PT-1-1, and PT-1-10.
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.	Please see Response to Responses to Policy MOB-1-2, PT-1-1, and PT-1-10. In addition, all runoff from the on-site Project components and proposed roadways would be collected by the on-site storm drainage system. The on-site stormwater drainage pipeline infrastructure would route flows to new bio-retention basins, which would detain and treat runoff prior to discharging into Laguna Creek. In addition to the bio-retention basins and hydromodification basin, the project would incorporate Low Impact Development (LID) controls consistent with the Stormwater Quality Design Manual (SQDM) for the Sacramento region. As previously discussed, the proposed LID features would be sufficiently sized to meet the required storage volumes. Thus, project runoff entering Laguna Creek would not exceed the capacity of the on-site systems and would not result in on-site flooding. However, final sizing and locations of storm drainage improvements have not been determined at this time, and the Project would be subject to Mitigation Measure 4.7-4, which requires the submittal of a final drainage report with the project improvement plans to specify the site's drainage design and address the off-site improvements triggered by Project development. The report would ensure the adequacy of the drainage system design to accommodate post-development flows, inclusion of appropriate stormwater quality and LID features, and conveyance and attenuation infrastructure are sufficient such that the post-project peak flows are equal to or less than pre-project peak flows.
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.	While the Project is located in the Rural Area, in order to preserve the natural features and open space resources existing within the future SPA boundaries, the Project may cluster residences beyond the seven du/ac density maximum consistent with General Plan Policy NR-1-9 and General Plan Goal NR-1, which allow such clustering to protect wetlands, stream corridors, scenic areas, or other natural features as open space. Although clustered development could exceed the seven du/ac maximum within the East and West neighborhoods, the



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Policy		Project Consistency
	• 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.	overall project density would not exceed the maximum allowable density of the LDR land use designation, as density would be determined for the entire SPA, rather than on a lot-by-lot basis. Within the SPA, a developer would be able to exercise greater flexibility in designing and placing structures, as long as the total density requirement for the SPA is not exceeded and the on-site protection of natural and other appropriate site features is promoted.
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 non-native 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 • Runoff reduction benefits • Air quality benefits (pollutant reduction)	As discussed in Chapter 4.3, Biological Resources, of this EIR, the site contains a total of 30 trees comprised of eight valley oaks, 14 Brazilian peppers, one fruitless mulberry, one black acacia, one date palm, two California black walnuts, and three blue gums. The existing trees within the site are located along either side of Laguna Creek, as well as adjacent to Sheldon Road along the northern site boundary. The only trees of local importance that would be impacted by the Project are the two California black walnuts and one valley oak, which are all recommended for removal due to poor condition. Because the Project would include the preservation of the Laguna Creek corridor, the trees located on either side of Laguna Creek would be retained. However, because the final development plan is currently undetermined, the Project could result in additional potential impacts to trees of local importance. The Project would be subject to Mitigation Measure 4.3-12, which requires the Project to obtain a Tree Permit in accordance with the requirements set forth in EGMC Chapter 19.12, pay all applicable fees, and comply with the provisions set forth therein by said permit for any trees subject to the City's Tree Preservation and Protection Ordinance proposed for removal. A tree mitigation plan shall be submitted to and approved by the City of Elk Grove Community Development Department.
Policy NR-2-2	Maximize tree canopy coverage on public lands and in open spaces by continuing to plant new trees and	Please see Response to Policy NR-2-1.

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Policy		Project Consistency
	ensuring sufficient right-of-way width for new developments to provide tree plantings.	
Policy NR-2-4	Preserve and plant trees in appropriate densities and locations to maximize energy conservation and air quality benefits.	Please see Response to Policy NR-2-1. In addition, the SPA includes design standards related to landscaping, requiring that enhanced entry landscaping be provided at the entry gates. Landscaping would also be subject to EGMC Section 23.54.
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.	Please see Response to Policy NR-2-1.
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.	As noted in Chapter 3, Project Description, of the EIR, all landscaping would be required to comply with the State's MWELO. In addition, the final SPA document would include site-specific landscaping standards, which would comply with applicable General Plan policies, including Policy NR-2-6.
Policy NR-3-1	Ensure that the quality of water resources (e.g., groundwater, surface water) is protected to the extent possible.	Potential impacts related to water quality are discussed throughout Chapter 4.7, Hydrology and Water Quality, of this EIR. As discussed under Impact 4.7-1 therein, compliance with the State's Construction General Permit and Chapter 16.44 of the EGMC would minimize the potential degradation of stormwater quality and downstream surface water during Project construction. In addition, best management practices (BMPs) would be required to be designed in accordance with the California Stormwater Quality Association (CASQA) BMP Handbook for Construction and for New Development/Redevelopment. Therefore, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction. With respect to future Project operation, the Project would include site design measures to ensure that stormwater runoff is properly treated prior to discharge to Laguna Creek. Thus, urban pollutants entering and potentially degrading local water quality would not be expected to occur as a result of the project. In addition, implementation of Mitigation Measures 4.7-2(a) and 4.7-2(b), which



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Policy		Project Consistency
		require preparation of a BMP and water quality maintenance plan that meet the standards of the City's NPDES Permit (No. CAS0085324), as well as a maintenance covenant, would ensure that the Project would not violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality during operation.
Policy NR-3-2	Integrate sustainable stormwater management techniques in site design to reduce stormwater runoff and control erosion.	As discussed under Impact 4.7-4, future development of the Project could result in an increase in off- or on-site peak stormwater runoff flows relative to existing conditions. Therefore, Mitigation Measure 4.7-4 requires the submittal of a design-level drainage report with the Project improvement plans to specify the site's drainage design and address the off-site improvements triggered by Project development. The report shall include an evaluation of the drainage system design, the inclusion of appropriate stormwater quality and LID features, conveyance and attenuation infrastructure sufficient to ensure post-project peak flows are equal to or less than pre-project peak flows, and the ability to accommodate post-development flows. The potential for the Project to result in substantial erosion is discussed under Impact 4.5-2 in Chapter 4.5, Geology and Soils, of this EIR. As discussed therein, Compliance with a project-specific Stormwater Pollution Prevention Plan (SWPPP) and implementation of BMPs would help ensure that soil erosion during construction and rain events is limited to the maximum extent feasible. In addition, pursuant to EGMC Section 16.44.090, plans submitted to the City must include the location, implementation schedule, and maintenance schedule of all erosion control measures and sediment control measures to be implemented, along with a description of measures designed to control dust and stabilize the construction site road and entrance. Furthermore, pursuant to Section 16.44.150, grading and erosion control permit applications and improvement plans may only be issued or approved by the City if the Public Works Director finds that the Project would not adversely affect surrounding properties and public ROW, the water quality of watercourses, or existing drainage.
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.	Please see Response to Policy NR-3-1.

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City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
Policy NR-3-8	Continue to eliminate water use inefficiencies and maintain ongoing communication with water suppliers to ensure sustainable supply.	Groundwater supply is discussed in Chapter 4.10, Public Services and Utilities, of this EIR, under Impact 4.10-7. As discussed therein, the Project has a long-term, reliable water supply that will not require any significant expansion of existing facilities or new water sources or diversions. Based on the historic pattern by which the Sacramento County Water Agency (SCWA), as a wholesaler, has been able to supply the Elk Grove Water District (EGWD), as a retailer, with the water that EGWD needs in its Service Area 2, sufficient surface water and groundwater supplies would be available to serve the future development of the Project during normal, dry, and multiple dry years.
Policy NR-3-9	Reduce the amount of water used by residential and nonresidential uses by requiring compliance with adopted water conservation measures.	Please see Responses to Policy NR-3-10 and Policy NR-3-13 below. In addition, the Project could include design features which would result in a 10 percent reduction in indoor water use and a 25 percent reduction in outdoor water use beyond code compliance.
Policy NR-3-10	Promote the use of greywater systems and recycled water for irrigation purposes.	Please see Response to Policy LU-5-1. As noted in Chapter 4.10, Public Services and Utilities, of this EIR, water use efficiency in the City's MWELO is to be achieved through the use of drought tolerant plantings and proper landscaping, as well as specific requirements for irrigation systems and grading design.
Policy NR-3-13	Advocate for native and/or drought-tolerant landscaping in public and private projects.	Please see Responses to Policy LU-5-1 and Policy NR-3-10.
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.	As discussed in Chapter 4.2, Air Quality, GHG Emissions, and Energy, of this EIR, the Project would result in a substantial air quality impact related to operational GHG emissions. However, the Project would include Mitigation Measures 4.2-7(a) through (c) which would ensure compliance with SMAQMD's BMP-1, BMP-2, and BMP-3, as well as the CAP Consistency Checklist which would reduce unmitigated baseline emissions by over 15 percent. However, due to uncertainties regarding Mitigation Measure 4.2-7(c), the Project would still not comply with SMAQMD's BMP-3 and CAP Measure TACM-6, and impacts related to GHG emissions would remain cumulatively considerable and significant and unavoidable.
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.	Please see Responses to Policies MOB-1-2 and NR-4-1.

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Policy		Project Consistency
Policy NR-4-8	Require that development projects incorporate best management practices during construction activities to reduce emissions of criteria pollutants.	Please see Response to Policy NR-4-1. In addition, as discussed under Impact 4.2-1 in Chapter 4.2, Air Quality, GHG Emissions, and Energy, of this EIR, the Project would be required to comply with all Sacramento Metropolitan Air Quality Management District (SMAQMD) rules and regulations. Applicable rules include Rule 403, Rule 404, Rule 407, Rule 442, Rule 453, and Rule 460. Additionally, all BMP's related to dust control under SMAQMD Rule 403 would be implemented. Thus, the Project would incorporate BMPs during construction activities.
Policy NR-4-10	Require new air pollution point sources, such as industrial, manufacturing, and processing facilities, to be located an adequate distance from residential areas and other sensitive land uses.	The Project would not include any land uses that would be considered to result in air pollution point sources. In addition, industrial, manufacturing, or processing facilities are not located in the vicinity of the site.
Policy NR-4-12	Coordinate with the Sacramento Metropolitan Air Quality Management District on the review of proposed development projects, specifically projects that could conflict with any applicable air quality plans and/or the State Implementation Plan.	Please see Response to Policy NR-4-1. Because all potential impacts related to air quality would be less-than-significant, the Project would not be considered to conflict with any applicable air quality plans or the State Implementation Plan (SIP). In addition, SMAQMD will have the opportunity to review this EIR and provide comments as part of the CEQA public review process.
Policy NR-5-1	By 2030, reduce per capita emissions greenhouse gas emissions to 4.1 MTCO2e. By 2050, reduce per capita greenhouse gas emissions 1.4 MTCO2e to meet the State's 2050 greenhouse gas emissions reduction goals.	Chapter 4.2, Air Quality, GHG Emissions, and Energy, of this EIR, analyzes the Project's consistency with SMAQMD's thresholds of significance. Additionally, for informational purposes, Chapter 4.2 analyzes the Project's consistency with the City's CAP. The City's CAP includes GHG reduction strategies, or measures, which intend to reduce GHG emissions and achieve consistency with the State's emissions reduction targets. Through Mitigation Measure 4.2-7(a), the Project would comply with SMAQMD BMP-1 and BMP-2. Through Mitigation Measure 4.2-7(b), the Project would comply with a majority of the CAP measures. However, the Project would not comply with BMP-3 and CAP Measure TACM 6 related to VMT. Thus, the Project would be subject to Mitigation Measure 4.2-7(c). With implementation of the required mitigation measures, the estimated Project GHG emissions per capita would meet the CAP per capita targets. However, due to uncertainties regarding Mitigation Measure 4.2-7(c), the Project would still not comply with SMAQMD's BMP-3 and CAP Measure TACM-6, and impacts related to GHG emissions would remain cumulatively considerable and significant and unavoidable.
Policy NR-5-2	Improve the health and sustainability of the community through improved regional air quality and	As discussed in Chapter 4.2, Air Quality, GHG Emissions, and Energy, of this EIR, air quality emissions associated with operation and construction of the

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Policy		Project Consistency
	reduction of greenhouse gas emissions that contribute to climate change.	Project would be below the applicable thresholds of significance. With regard to GHG emissions, please see Response to Policy NR-5-1.
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.	Please see Response to Policy LU-5-1.
Disaster and Emergency Risk Reduction		
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 off-site 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.	Please see Response to Policy HTH-1-1. The site is not anticipated to be located in the vicinity of facilities with the potential to create hazardous physical events. Future development of the Project with active adult residential uses would not be anticipated to result in hazards to the public and/or nearby properties. The potential hazardous physical effects of an event associated with the Project is not reasonably foreseeable, as defined in Policy ER-1-2.
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.	Please see Response to Policy ER-1-1.
Policy ER-1-3	For the purpose of implementing Policy ER-1-1, use the Threshold of Exposure standards shown in Table 8-2 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	Please see Response to Policy ER-1-1.

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Policy		Project Consistency
	level of risk standards may be considered by the City when supported by substantial evidence.	
Policy ER-1-5	Storage of hazardous materials and waste will be strictly regulated, consistent with State and federal law.	Please see Response to Policy ER-1-1. In addition, as discussed under Impact 4.6-1 in Chapter 4.6, Hazards and Hazardous Materials, operations of the Project would not include any activities that would involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. During operations, hazardous material use would be limited to landscaping products such as fertilizer and pesticides, as well as typical commercial and maintenance products (cleaning agents, degreasers, paints, batteries, and motor oil). Proper handling and usage of such materials in accordance with label instructions would ensure that adverse impacts to human health or the environment would not result.
Policy ER-2-1	Oppose the construction of flood management facilities that would alter or reduce flows in the Cosumnes River and support retention of the Cosumnes River floodplain in nonurban uses consistent with location in an area subject to flooding.	Potential impacts related to substantially altering the existing drainage pattern through the alteration of the course of a stream or river or through the addition of impervious surfaces are discussed under Impact 4.7-4 within Chapter 4.7, Hydrology and Water Quality, of this EIR. Laguna Creek is a tributary that drains to the lower Cosumnes River watershed; however, Mitigation Measure 4.7-4 requires the design-level drainage reports to show that conveyance and attenuation infrastructure would be sufficient to ensure post-project peak flows are equal to or less than pre-project peak flows. The site is not located within the Cosumnes River floodplain.
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.	The potential for the Project to substantially alter the existing drainage pattern of the site, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would substantially increase runoff and result in flooding on- or off-site, is discussed under Impact 4.7-4 within Chapter 4.7, Hydrology and Water Quality, of this EIR. As discussed therein, final sizing and locations of storm drainage improvements have not been determined at this time. In addition, the roundabout improvements at the Sheldon Road/Bradshaw Road intersection could widen the existing roadway into the existing culvert area, causing peak runoff flows to potentially increase and result in off-site flooding. Because future development of the Project could result in an increase in off- or on-site peak runoff flows relative to existing conditions, implementation of Mitigation Measure 4.7-4 is required. Mitigation Measure 4.7-4 requires preparation and submittal of a design-level drainage report to specify the site's drainage design

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Policy		Project Consistency
		and address the off-site improvements triggered by Project development, which would ensure that development of the Project would not result in an increase in off- or on-site peak runoff flows relative to existing conditions.
Policy ER-2-6	Except as otherwise set forth herein, 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. Exceptions for development include non-habitable structures and associated mechanical equipment to serve those structures which may be considered by the City, subject to applicable local, state, and federal regulations. Additional public infrastructure, including but not limited to trails, maintenance facilities, or similar improvements, may also be allowed on a case-by-case basis. Such exceptions must result in no net increase to the water surface elevation adjacent to, downstream, and upstream of the development as determined by the City. 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.	As discussed under Impact 4.7-5 within Chapter 4.7, Hydrology and Water Quality, of this EIR, portions of the site are designated by the Federal Emergency Management Agency (FEMA) as Zone X, which is defined as an area of minimal flood hazard located outside of the 100-year floodplain, and also includes areas designated by FEMA as Zone AE with base flood elevations (BFEs) ranging between 51 and 53 feet, located around Laguna Creek. The two proposed residential neighborhoods are anticipated to be outside of the 100-year floodplain and the pedestrian bridge over Laguna Creek is anticipated to avoid the 100-year floodplain limits. However, because development is not proposed at this time and detailed plans have not been prepared, Mitigation Measures 4.7-5(a) and 4.7-5(b) are included within this EIR to ensure that development would not occur within the Special Flood Hazard Area (SFHA).
Policy ER-2-7	A buildable area outside the 100-year floodplain must be present on every residential lot sufficient to accommodate a residence and associated structures. Fill may be placed to create a buildable area only if approved by the City and in accordance with all other applicable policies and regulations. The use of fill in the 100-year floodplain to create buildable area is strongly discouraged and shall be subject to review to determine potential impacts on wildlife, habitat, and flooding on other parcels.	Please see Response to Policy ER-2-6 above related to construction outside of the on-site floodplain areas. The Project is not anticipated to include the use of fill in the 100-year floodplain. However, because development is not proposed at this time and detailed plans have not been prepared, Mitigation Measures 4.7-5(a) and 4.7-5(b) are included within this EIR to ensure that development would not occur within the SFHA.
Policy ER-2-8	The City will not enter into a development agreement, approve a building permit or entitlement, or approve	Please see Response to Policy ER-2-6. In addition, the 200-year floodplain associated with Laguna Creek as shown on Figure 8-2 of the City's General

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Policy		Project Consistency
	a tentative or parcel map for a project located within an urban level of flood protection area, identified in Figure 8-2, 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 the DWR. The four potential findings for a development project within the 200-year floodplain, as shown on Figure 8-2, 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.	Plan does extend into the site. Mitigation Measures 4.7-5(a) and 4.7-5(b) would impose conditions on the project to provide for an urban level of flood protection.
Policy ER-2-11	Vehicular access to the buildable area of all parcels must be at or above the 10-year flood elevation.	As shown in Figure 3-5, SPA Boundary and Sub-Zones, within Chapter 3, Project Description, of this EIR, the proposed gated entryways to the future development along the northern site boundary and in the southwestern corner would all be located outside of the Laguna Creek Open Space area, which contains the on-site floodplain.
Policy ER-2-12	Creation of lots whose access will be inundated by flows resulting from a 10-year or greater storm shall not be allowed. Bridges or similar structures may be used to provide access over creeks or inundated areas, subject to applicable local, State, and federal regulations.	Please see Response to Policy ER-2-11 above. The Project would include a single pedestrian bridge crossing over Laguna Creek. The pedestrian bridge is anticipated to avoid the 100-year floodplain limits. However, because development is not proposed at this time and detailed plans have not been prepared, assurance that development would not occur within the SFHA cannot be made at this time. Thus, the Project would be subject to Mitigation Measure

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Policy		Project Consistency
		4.7-5(b), which requires that the improvement plans demonstrate, to the satisfaction of the City Engineer, that the improvements would be designed to avoid the FEMA mapped SFHA. Benchmark elevation and location shall be shown on the improvement plans to the satisfaction of the Department of Public Works and City Engineer.
Policy ER-2-13	Discourage the number of crossings over natural creeks to reduce potential flooding and access problems.	The Project would include a single pedestrian bridge crossing over Laguna Creek. Please see Response to Policy ER-2-2 and Policy ER-2-6 related to potential flooding and floodplains, respectively.
Policy ER-2-14	Parcels should not be created where any of the parcel's access or preservation easements, floodplain, marsh or riparian habitat, or other features would leave insufficient land to build and operate structures. This policy shall not apply to open space lots, landscape corridors, or other City-approved use specifically created for dedication to the City or another appropriate entity for habitat protection, flood hazard management, drainage, or wetland maintenance.	As shown within Chapter 3, Project Description, of this EIR, such as Figure 3-5 and 3-6, the Project would not create parcels that would be rendered inaccessible due to easements, floodplain, existing habitat, or other features.
Policy ER-2-15	Where necessary due to clear dangers to life or property, the City will support the construction of flood hazard management projects.	Please see Response to Policy ER-2-6.
Policy ER-2-16	Notwithstanding any other policy, new or modified bridge structures and trails are permitted on land subject to flooding during a 100-year event if such facilities do not cause an increase in the water surface elevation of the 100-year floodplain exceeding one tenth of a foot and there is analysis demonstrating that the physical and/or economic use of upstream and downstream property will not be adversely affected by the increase.	As discussed under Impact 4.7-5 within Chapter 4.7, Hydrology and Water Quality, of this EIR, the pedestrian bridge is anticipated to avoid the 100-year floodplain limits. However, because development is not proposed at this time and detailed plans have not been prepared, assurance that development would not occur within the SFHA cannot be made at this time. Implementation of Mitigation Measure 4.7-5(b) would reduce impacts associated with such to less-than-significant levels.
Policy ER-2-17	Require all new development projects to incorporate runoff control measures to minimize peak flows of runoff and/or assist in financing or otherwise implementing comprehensive drainage plans.	Please see Response to Policy ER-2-2.



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Policy		Project Consistency
Policy ER-2-18	Drainage facilities shall be properly maintained to ensure their proper operation during storms.	Please see Response to Policy NR-3-1.
Policy ER-3-2	Seek to ensure that new structures are protected from damage caused by geologic and/or soil conditions.	As discussed in Chapter 4.5, Geology and Soils, of this EIR, according to the Geotechnical Engineering Report prepared for the Project, the proposed development, including off-site improvements, would not be subject to substantial risks related to fault rupture hazards. Due to the relatively low seismicity of the area, compliance with CBSC requirements related to seismic design, and the lack of substantial natural slopes at the site and off-site improvement areas, the potential for the Project to expose people or structures to the risk of loss, injury, or death involving rupture of an earthquake fault, strong ground shaking, or ground failure would be less-than-significant. In addition, the Project would be subject to Mitigation Measure 4.5-3, which requires preparation of a final design-level geotechnical engineering report for the site and off-site improvement areas to ensure the geological and soil conditions would be adequate to support development of the Project.
Policy ER-6-7	Enforce the City's water-efficient landscape ordinance that is as strict as or stricter than the State Water Resources Control Board regulations affecting local water agencies and ensure future state updates are incorporated in some form to the City's ordinance. Provide opportunity for and encourage public reporting of violations.	Please see Responses to Policy LU-5-1 and NR-3-10.
Disaster and Emergency Response and Public Safety		
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.	According to the National Institute of Crime Prevention (NICP), CPTED principles include project design elements to decrease opportunities for criminal activities. Such design elements include natural surveillance (i.e., openly visible areas); access control through the use of strategic entrances, exits, fencing, and landscaping to prevent unauthorized access; and territorial reinforcement, or physical expressions of ownership such as signage, landscaping, and maintenance to distinguish between public and private spaces. The Project includes gates at all four site entryways, as well as landscaping and maintenance throughout.
Policy SAF-1-6	Require adequate emergency access for new development projects.	Potential impacts related to emergency access are discussed under Impact 4.11-5 within Chapter 4.11, Transportation, of this EIR. Access to the future development would be provided from three gated entries at Sheldon Road and

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
		one on Waterman Road. The entries would serve as primary emergency access routes. All internal roadways would be designed to meet CCSD standards, which include minimum roadway width and turning radius for fire apparatus. The CCSD will review the Project's proposed circulation plan to ensure adequate access is provided throughout the entire site.
Urban Infrastructure		
Policy INF-1-1	Water supply and delivery systems shall be available in time to meet the demand created by new development.	The water supply infrastructure improvements necessary to serve the Project are discussed under Impact 4.10-6 within Chapter 4.10, Public Services and Utilities, of this EIR. As discussed therein, the new water supply infrastructure would be installed either in the existing road ROW or in areas proposed for disturbance as part of the Project and would be subject to the City's Standard Construction Specifications. Overall, the existing water supply infrastructure would be sufficiently sized to accommodate the increased demand from the future development of the Summer Villas SPA, and the Project would not require the construction of new or expanded water conveyance infrastructure beyond the improvements required to provide service.
Policy INF-1-2	Require that water flow and pressure be provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.	As noted under Impact 4.10-6 within Chapter 4.10, Public Services and Utilities, of this EIR, the proposed water conveyance infrastructure would be designed to meet standard residential fire flow requirements. In addition, the water system would include residential hook-ups and hydrant connections, and each unit connection would provide fire flows necessary for a residential fire sprinkler system in addition to the domestic water service.
Policy INF-1-3	Protect the quality and quantity of groundwater resources, including those which serve households and businesses which rely on private wells. The City shall support and participate in local efforts to implement the State's Sustainable Groundwater Management Act.	Please see Response to Policy NR-3-1 related to water quality. With respect to water supply, please see Response to Policy NR-3-8.
Policy INF-2-1	Sewage conveyance and treatment capacity shall be available in time to meet the demand created by new development.	Wastewater conveyance infrastructure improvements and treatment capacity necessary to serve the Project are discussed under Impact 4.10-6 within Chapter 4.10, Public Services and Utilities, of this EIR. As discussed therein, the new wastewater conveyance infrastructure would be installed either in existing road ROW or in areas proposed for disturbance as part of the Project. All new wastewater conveyance infrastructure would be designed consistent with the applicable SacSewer standards and specifications, ensuring the new

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
		sewer lines are constructed in conformance with proper materials and sizing. The existing wastewater conveyance infrastructure would be sufficiently sized to accommodate the increased demand from the Project, and construction of new or expanded wastewater conveyance infrastructure beyond the improvements required to provide service would not occur.
Community Infrastructure and Facilities		
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.	As discussed under Impact 4.10-9 within Chapter 4.10, Public Services and Utilities, of this EIR, the 2022 CALGreen Code requires at least 65 percent diversion of construction waste. As such, approximately 1,779.87 tons of waste would be expected to be diverted away for recycling from landfill disposal during Project construction. With respect to Project operation, solid waste collection services would be provided by Republic Services, and disposal and recycling would be provided by 10 different local landfills anticipated to operate as far into the future as 2082.
Policy CIF-2-2	Require that new utility infrastructure for electrical, telecommunication, natural gas and other services avoid sensitive resources, be located so as to not be visually obtrusive, and, if possible, be located within roadway rights-of-way or existing utility easements.	As discussed throughout Impact 4.10-6 within Chapter 4.10, Public Services and Utilities, of this EIR, as well as above in responses to Policy INF-1-1 and Policy INF-2-1, new utility infrastructure would be installed either in existing road ROW or in areas proposed for disturbance as part of the Project. The Project has been designed to avoid sensitive habitats, such as the Laguna Creek area located on-site.
Policy CIF-2-3	To minimize damage to roadways and reduce inconvenience to residents and businesses, the City shall seek to coordinate roadway utility efforts so that they are installed in a single operation whenever possible. Multiple installations, in which separate utilities are installed at different times and/or in different trenches, are specifically discouraged.	The Project is not currently proposed to include multiple phases, and specific development plans are not proposed at this time. In addition, Mitigation Measure 4.11-1 of this EIR requires preparation and submittal of a construction signing and traffic control plan to the City's Community Development Department for review and a determination. Compliance with the Project-specific traffic control plan would ensure that construction traffic does not interfere with existing roadway operations during the construction phase.
Infrastructure Financing and Phasing		
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.	As discussed throughout Chapter 4.10, Public Services and Utilities, the Project would be subject to various impact fees, including fire impact fees to offset the increased demand for public services, the City's Capital Facilities Fee (which is used to fund a range of facilities, including police facilities), school impact fees, and park dedication in-lieu fees pursuant to EGMC Section 22.28.040 Additional funding contributions would be collected through the Project's

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
		payment of property taxes and other sources, such as the sales tax collected and apportioned to fund law enforcement services through Measure E.
Policy IFP-1-8	Infrastructure improvements must be financed and/or constructed concurrent with or prior to completion of new development.	Infrastructure improvements required to serve the proposed development would be constructed prior to occupancy of the proposed active adult residential units.
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.	Please see responses to Policy INF-1-1 and Policy INF-2-1 above.
Community Health		
Policy HTH-1-1	Consider proximity to environmental health risks when planning for residential uses.	As discussed in Chapter 4.6, Hazards and Hazardous Materials, a review of sites located near the Project that are listed in federal, State, and/or local databases of hazardous materials sites was completed as part of the Phase I Environmental Site Assessment (ESA) prepared for the Project. The closest site with a reported release (Pleasant Grove Hi/Katherine Aliani Mid at the intersection of Bond Road and Bradshaw Road, noted as a certified ENVIROSTOR site as of November 7, 2003) is located 4,425 feet to the southeast of the site. The case is noted with soil impacts only from lead and polychlorinated biphenyls (PCBs). Another ENVIROSTOR site (Franklin Meadows Elementary school #37 at the intersection of Fire Poppy Drive and Blossom Ranch Drive) is located 3,083 feet to the south-southwest, but is noted with "No Contaminants found". Based upon the distance, status, type of listing and/or down- to cross-gradient location, the above and remaining database listings appear unlikely to have significantly environmentally impacted the site, and, therefore, would not constitute a recognized environmental condition (REC). As such, the proposed active adult residential uses would not be located in the vicinity of sites posing environmental health risks. In addition, the Project would be subject to Mitigation Measures 4.6-2(a), 4.6-2(b), 4.6-2(c), 4.6-2(d), 4.6-2(e), and 4.6-2(f) related to on-site conditions.
Policy HTH-1-3	Provide comfortable, safe pedestrian and bicycle connections between residential areas and recreational opportunities.	Please see Response to Policy PT-1-12.
Noise		

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
Policy N-1-1	New development of the uses listed in Table 8-3 of General Plan 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.	General Plan Table 8-3 provides the maximum allowable noise exposure from transportation noise sources in the City of Elk Grove. As discussed under Impact 4.9-2 of Chapter 4.9, Noise, of this EIR, the Project would not result in a substantial increase in traffic noise levels at existing sensitive receptors due to project-generated traffic noise. Thus, the Project would not cause noise levels at off-site receptors to exceed the standards included in General Plan Table 8-3. However, while not a CEQA concern, according to the Environmental Noise Assessment prepared for the Project, traffic noise levels are predicted to be 67 A-weighted decibels (dBA) day/night average level (L_{dn}) the proposed residences directly adjacent to Sheldon Road, which would exceed the City's noise level standard of 60 dBA L_{dn}. To ensure the Project complies with the noise level standards at the proposed residences along Sheldon Road, the City shall require as part of the SPA, that the outdoor activity areas of residential uses along Sheldon Road shall be shielded from the Road through the use of minimum eight-foot-tall sound walls per the approval of the City Engineer. The sound wall may be constructed of combination of earthen berm and masonry wall to achieve the required wall height. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed. In addition, noise levels from the proposed hard courts within the Waterman Recreational Open Space area, which could include pickleball courts, could be approximately 54 dBA average sound level (L_{eq}) at the proposed on-site residences, which would exceed the City's standard of 50 dBA L_{dn} during daytime hours. To ensure the Project complies with the noise level standards at the proposed residences during daytime hours, the SPA would include eight-foot-tall sound barriers at the eastern and southern boundaries of the proposed sports courts. The barriers may be comprised of CMU walls.
Policy N-1-2	Where noise mitigation measures are required to achieve the standards of Tables 8-3 and 8-4, 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	Please see Response to Policy N-1-1. As discussed under Impact 4.9-2 in Chapter 4.9, Noise, of this EIR, mitigation would not be required to reduce noise levels at off-site receptors to below the standards included in Table 8-3 and Table 8-4 of the General Plan. In addition, please see Response to Policy N-1-1.

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
	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, from noise impacts.	Please see the Responses to Policy N-1-1 and Policy N-1-2.
Policy N-1-5	Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 8-3 or the performance standards of Table 8-4, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.	Consistent with Policy N-1-5, an Environmental Noise Assessment was prepared for the Project by Saxelby Acoustics, the results of which are presented in Chapter 4.9, Noise, of this EIR. Please see Response to Policy N-1-1 and Policy N-1-2.
Policy N-1-6	Where proposed nonresidential land uses are likely to produce noise levels exceeding the performance standards of Table 8-4 at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.	Please see the Responses to Policy N-1-2 and N-1-5.
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.	Please see Response to Policy N-1-8.
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.	Consistent with Policy N-1-8, potential construction noise impacts on nearby sensitive uses are assessed under Impact 4.9-1 in Chapter 4.9, Noise, of this EIR. As discussed therein, construction noise levels associated with the Project are not predicted to generate noise levels which exceed the existing average ambient noise level in excess of the California Department of Transportation



Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
		(Caltrans) increase criteria of 12 dBA. However, construction at off-site areas is predicted to generate noise levels in excess of the Caltrans 12 dBA increase threshold compared to the existing average ambient noise levels along Waterman Road and Sheldon Road. Thus, Mitigation Measure 4.9-1 shall be implemented, which would require eight-foot-tall temporary sound barriers along roadway segments where off-site construction occurs, as well as additional construction noise reduction measures. In addition, consistent with EGMC Section 6.32.100, Mitigation Measure 4.9-1 requires on-site construction activities to be limited to between the hours of 7:00 AM and 7:00 PM, daily, when located in close proximity to residential uses. However, even with implementation of Mitigation Measure 4.9-1, construction noise levels would not be reduced to below the 12 dBA threshold, and a significant and unavoidable temporary construction impact would occur.
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.	As discussed under Impact 4.9-3 in Chapter 4.9, Noise, of this EIR, the Project would not result in the generation of excessive groundborne vibration or groundborne noise levels. Construction vibration levels anticipated for the project are less than the 0.2 inches per second (in/sec) threshold at distances of 26 feet. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located further than 26 feet from where construction activities are anticipated to occur on the site.
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 as measured immediately within the property line of lands designated for noise-sensitive uses.	Please see the Response to Policy N-1-2.
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 Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels shall be considered significant; and	As discussed under Impacts 4.9-2 and 4.9-4 in Chapter 4.9, Noise, of the Draft EIR, the increase in traffic noise levels attributable to the Project under Existing Plus Project and Cumulative Plus Project conditions would result in a maximum noise level increase of 0.5 dBA, which would be below the applicable increase significance criteria. Operational stationary noise would not result in a substantial increase in existing ambient noise levels at existing sensitive receptors. In addition, please see Response to Policies N-1-1 and N-1-2.

Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
	• Where existing ambient noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels shall be considered significant; and • Where existing ambient noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +1.5 dB Ldn increase in noise levels shall be considered significant. Public roadway improvements to alleviate traffic congestion and safety hazards shall utilize FHWA 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 shall not apply to public projects to alleviate traffic congestion and safety hazards.	
Policy N-2-3	Emphasize methods other than installation of sound walls in front yard areas to reduce noise to acceptable levels in residential areas that were originally constructed without sound walls.	Please see Responses to Policy N-1-1 and N-1-2.
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.	Please see Responses to Policy N-1-1 and N-1-2.

4.9 Noise

4.9 NOISE

4.9.1 INTRODUCTION

The Noise chapter of the EIR describes the existing noise environment in the Project vicinity, and identifies potential impacts and mitigation measures related to noise and vibration associated with construction and operation of the Project. The methods by which the potential impacts are analyzed are discussed, followed by the identification of potential impacts and the recommended mitigation measures designed to reduce significant noise and vibration impacts to less-than-significant levels, if required. The Noise chapter is primarily based on the Environmental Noise Assessment (Noise Assessment) prepared for the Project by Saxelby Acoustics, LLC (Saxelby) (see Appendix K of this EIR),[1] as well as the City of Elk Grove General Plan[2] and the associated General Plan EIR.[3]

4.9.2 EXISTING ENVIRONMENTAL SETTING

The Existing Environmental Setting section provides background information on noise and vibration, a discussion of acoustical terminology and the effects of noise on people, existing sensitive receptors in the Project vicinity, existing sources and noise levels in the Project vicinity, and groundborne vibration.

Fundamentals of Acoustics

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected, or undesired, and therefore, may be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

The decibel scale was devised to measure sound. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0.0 decibels (dB). Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in dB correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. A strong correlation exists between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For such reason, the A-weighted sound level has become the standard tool of environmental noise assessment.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted

1 Saxelby Acoustics, LLC. *Environmental Noise Assessment, Summer Villas EIR*. June 2, 2025.
2 City of Elk Grove. *General Plan.* Adopted February 2019. Amended December 13, 2023.
3 City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* February 2019.

sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, day/night average level (L_{dn}), and shows very good correlation with community response to noise.

The L_{dn} is based upon the average noise level over a 24-hour day, with a +10 dBA weighing applied to noise occurring during nighttime hours (10:00 PM to 7:00 AM). The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, the noise measurement tends to disguise short-term variations in the noise environment.

The Community Noise Equivalent Level (CNEL) is defined as the 24-hour average noise level with noise occurring during evening hours (7:00 PM to 10:00 PM) weighted by +5.0 dBA, and nighttime hours weighted by +10.0 dBA. The L_{max} is defined as the highest root-mean-square (RMS) sound level measured over a given period of time. The Sound Exposure Level (SEL) is a rating, in decibels, of a discrete event, such as aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.

Table 4.9-1 below lists several examples of the noise levels associated with common situations.

Table 4.9-1
Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
N/A	110	Rock Band
Jet Fly-over at 300 meters (1,000 feet)	100	N/A
Gas Lawn Mower at 1 meter (three feet)	90	N/A
Diesel Truck at 15 meters (50 feet), at 80 km/hr (50 mph)	80	Food Blender at 1 meter (three feet) Garbage Disposal at 1 meter (three feet)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 meters (100 feet)	70	Vacuum Cleaner at three meters (10 feet)
Commercial Area Heavy Traffic at 90 meters (300 feet)	60	Normal Speech at 1 meter (three feet)
Quiet Urban Daytime	50	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night, Concert Hall (Background)
N/A	10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Saxelby Acoustics, LLC, 2025.

Stationary sources of noise, including construction equipment, attenuate at a rate of approximately 6.0 dB per doubling of distance from the source depending on ground absorption. Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, increase the efficacy of noise attenuation that occurs by distance alone. Widely distributed

noises, such as a large industrial facility spread over many acres or a street with moving vehicles, would typically attenuate at a lower rate.

Surrounding Land Uses and Existing Sensitive Receptors

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Sensitive noise receptors may also include threatened or endangered noise-sensitive biological species, although most jurisdictions have not adopted noise standards for wildlife areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the site, sensitive land uses include existing rural residences surrounding the site, as shown in Figure 4.9-2 and Figure 4.9-3.

Existing Ambient Noise Environment

The existing ambient noise environment in the Project vicinity is primarily defined by traffic on Waterman Road and Sheldon Road. To quantify the existing ambient noise environment in the Project vicinity, Saxelby conducted continuous (24-hour) noise level measurements at two locations, labeled as LT-1 and LT-2 in Figure 4.9-1. The sound level meters were programmed to record the maximum, median, and average noise levels at each measurement location during the survey. The maximum value, denoted as L_{max}, represents the highest noise level measured. The average value, denoted as L_{eq}, represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted as L_{50}, represents the sound level exceeded 50 percent of the time during the monitoring period. A summary of the noise level measurement survey results is provided in Table 4.9-2.

Table 4.9-2
Existing Background Noise Measurement Data

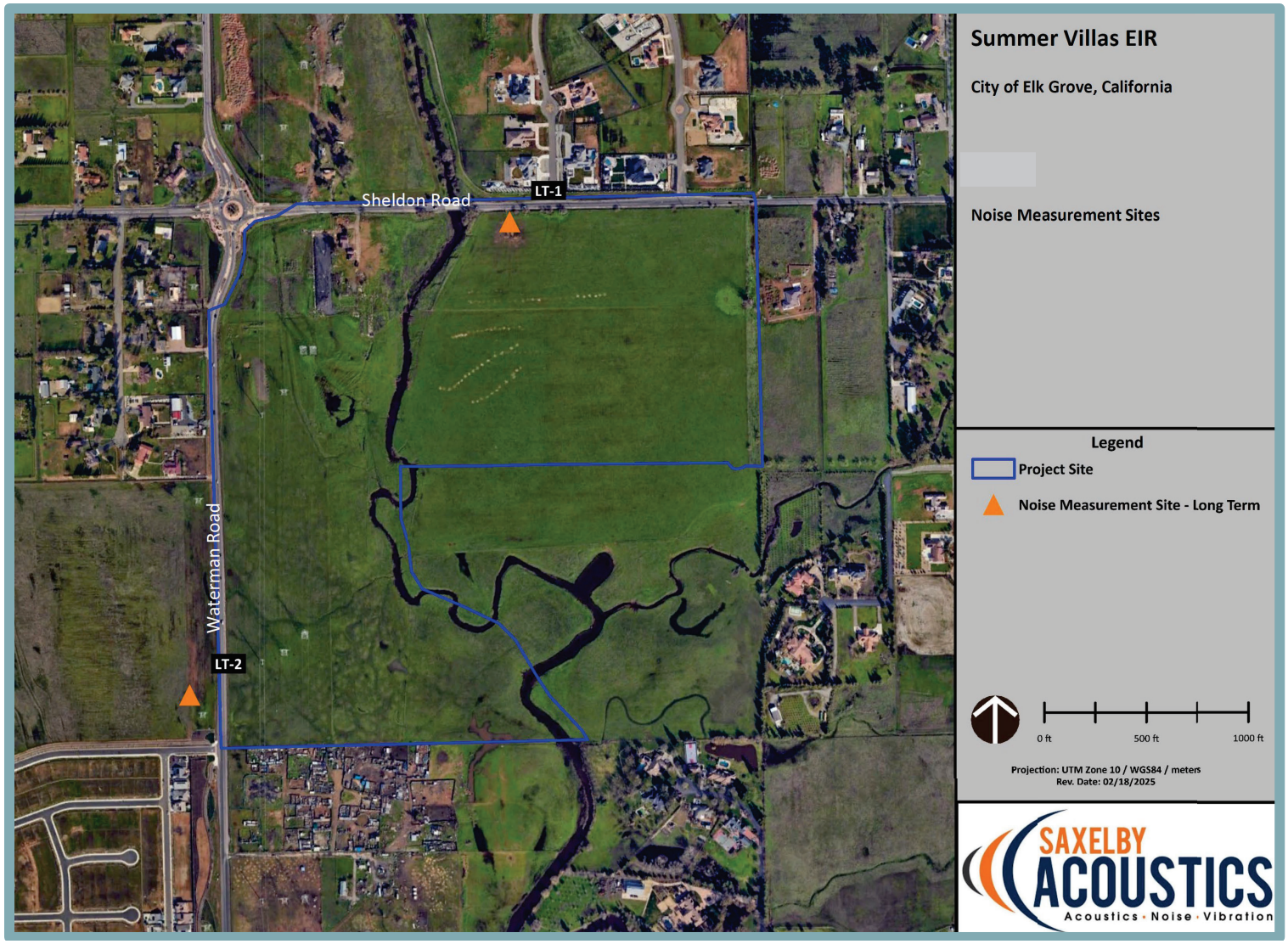
Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1:	6/16/23	64	62	59	80	56	47	74
LT-2:	6/16/23	56	52	49	72	50	45	67

Notes:
- All values are shown in dBA.
- Daytime hours: 7:00 AM to 10:00 PM.
- Nighttime hours: 10:00 PM to 7:00 AM.

Source: Saxelby Acoustics, LLC, 2025.

Using the SoundPLAN noise-prediction model and the ambient noise level data presented in Table 4.9-2, the existing ambient noise levels at the nearest sensitive receptors in the project vicinity were modeled. The existing ambient noise level contours along Sheldon Road and Waterman Road, as well as the locations of the nearest existing sensitive receptors, are presented in Figure 4.9-2.

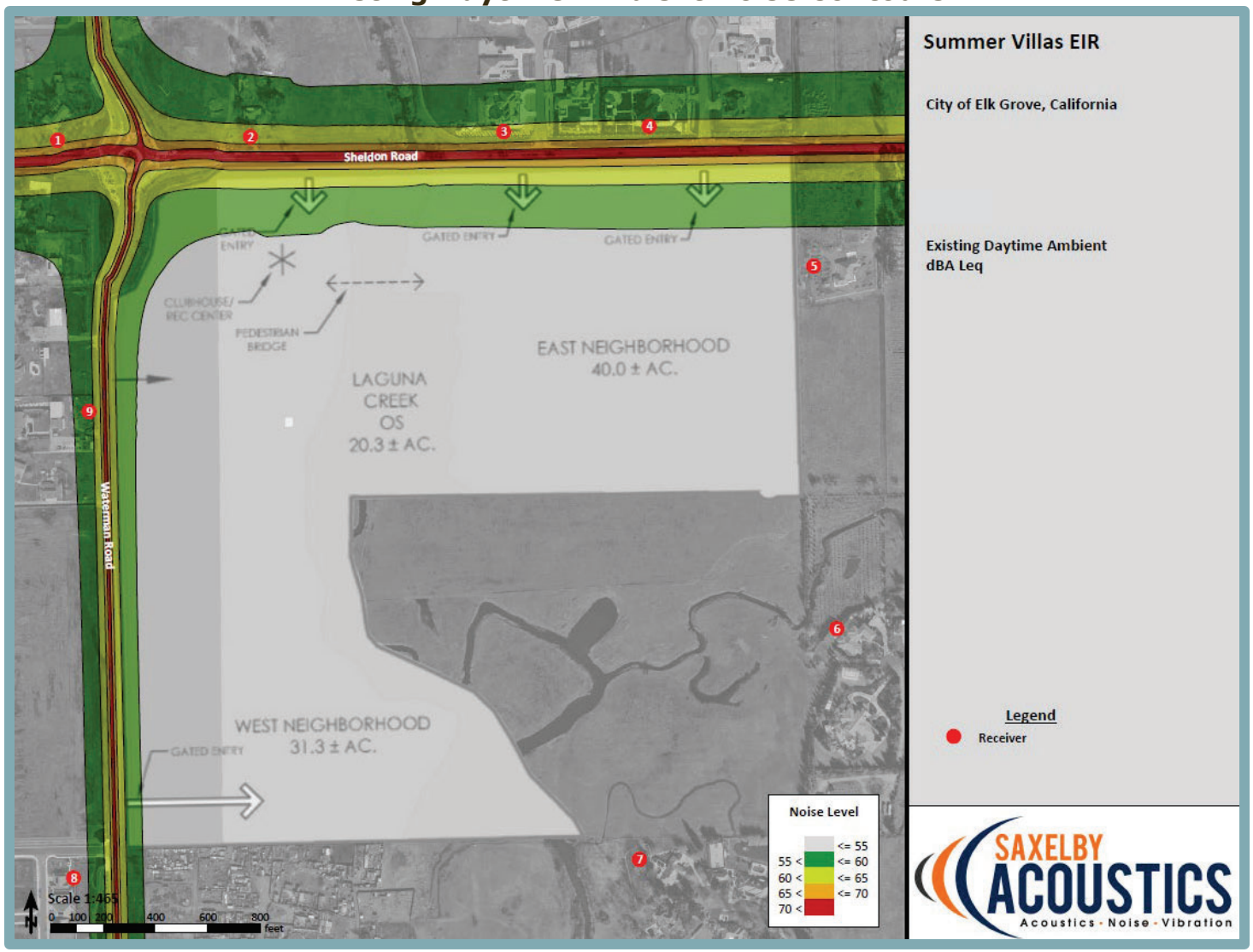
Figure 4.9-1
Noise Measurement Locations



Source: Saxelby Acoustics, LLC, 2025.

*Figure not OCR compatible.

Figure 4.9-2
Existing Daytime Ambient Noise Contours



Source: Saxelby Acoustics, LLC, 2025.

*Figure not OCR compatible.

Existing Traffic Noise Levels

The Federal Highway Administration (FHWA) Traffic Noise Model (FHWA-RD-77-108) was used to calculate existing noise levels due to traffic, expressed in L_{dn}, for roadways within the Project vicinity. The approach used to evaluate existing traffic noise levels is discussed in the Method of Analysis section of this chapter. Traffic data for existing conditions were obtained from the transportation consultant, Fehr & Peers.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each Project-area roadway segment, as summarized in Table 4.9-3. In some locations, sensitive receptors may not receive full shielding from noise barriers, or may be located at distances which vary from the assumed calculated distance.

Table 4.9-3
Existing Traffic Noise Levels

Roadway	Segment	Existing Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors
Bond Road	West of Waterman Road	60.7
Bradshaw Road	North of Sheldon Road	60.8
Sheldon Road	Elk Grove Florin Road to Waterman Road	58.2
Sheldon Road	Waterman Road to Bradshaw Road	58.5
Sheldon Road	West of Elk Grove Florin Road	59.1
Waterman Road	Calvine Road to Sheldon Road	52.6
Waterman Road	Sheldon Road to Bond Road	57.9
Waterman Road	North of Calvine Road	57.3
Waterman Road	South of Bond Road	59.1

Source: Saxelby Acoustics, LLC, 2025.

Fundamentals of Vibration

Vibration is similar to noise in that both involve a source, a transmission path, and a receiver. However, while noise is generally considered to be pressure waves transmitted through air, vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of an amplitude and frequency. A person's response to vibration depends on their individual sensitivity, as well as the amplitude and frequency of the source.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of velocity in inches per second (in/sec) peak particle velocity (PPV) or root-mean-square (VdB, RMS). Standards pertaining to perception, as well as damage to structures, have been developed for vibration in terms of PPV and RMS velocities. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate. Differences in subsurface geologic conditions and distance from the source of vibration result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes decrease with increasing distance.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases. Operation of construction equipment and construction techniques generate ground vibration. Roadway traffic can also be a source of such

vibration. At high enough amplitudes, ground vibration has the potential to damage structures and/or cause cosmetic damage. However, traffic rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.

Existing Ambient Vibration Environment

Sources of substantial ground vibration do not occur in the Project vicinity. The existing vibration levels within the site are below the threshold of perception.

4.9.3 REGULATORY CONTEXT

In order to limit exposure to physically and/or psychologically damaging noise levels, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. Applicable federal laws or regulations pertaining to noise or vibration that would directly apply to the Project do not exist. The following provides a general overview of the existing State and local regulations that are relevant to the Project.

State Regulations

The following are the State environmental laws and policies relevant to noise and vibration.

California Building Code

The California Building Code (Title 24, Part 2 of the California Code of Regulations [CCR]) establishes uniform minimum noise insulation performance standards to protect persons within new buildings that house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings.

Title 24 mandates that interior noise levels attributable to exterior sources cannot exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also requires that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the allowable interior noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

Local Regulations

The following are the local environmental goals and policies relevant to noise and vibration.

City of Elk Grove General Plan

The relevant goals and policies from the City of Elk Grove General Plan related to noise and vibration are presented below.

Goal N-1 Sensitive Uses Are Protected from Noise Intrusion

Policy N-1-1 New development of the uses listed in Table 8-3 [recreated herein as Table 4.9-4] 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 [recreated herein as

Table 4.9-4 and Table 4.9-5, respectively], 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.

Table 4.9-4
Maximum Allowable Noise Exposure, Transportation Noise Sources

Land Use	Outdoor Activity Areas	Interior Spaces	
	L_{dn}, dB	L_{dn}, dB	L_{eq}, dB[c]
Residential	60[d,g]	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,g]	40[f]	-
Transient Lodging	60[e,g]	45	-
Hospitals, Nursing Homes	60[d,g]	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	60[d,g]	-	40
Office Buildings	-	-	45
Schools, Libraries, Museums	-	-	45

[a] 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.

[b] Transportation projects subject to Caltrans review or approval shall comply with the Federal Highway Administration noise standards for evaluation and abatement of noise impacts.

[c] As determined for a typical worst-case hour during periods of use.

[d] Where it is not possible to reduce noise in outdoor activity areas to 60dB, 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.

[e] 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.

[f] The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.

[g] In cases where the existing ambient noise level exceeds 60 dBA, the maximum allowable project-related permanent increase in ambient noise levels shall be 3 dBA/L_{dn}.

Source: City of Elk Grove General Plan [Table 8-3], December 13, 2023.

Table 4.9-5
Noise Level Performance Standards for New Projects Affected By or Including Non-Transportation Noise Sources

Performance Standard For Stationary Sources	Noise Level Descriptor	Daytime (7 AM to 10 PM)	Nighttime (10 PM to 7 AM)
Performance Standards for Typical Stationary Noise Sources[a]	Hourly L_{eq}, dB	55[c,d]	45[c,d]
Performance Standards for Stationary Noise Sources Which Are Tonal, Impulsive, Repetitive, or Consist Primarily of Speech or Music[b]	Hourly L_{eq}, dB	50[c,d]	40[c,d]

[a] 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.
[b] 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.
[c] 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
[d] The City may impose noise level standards which are more or less restrictive based upon either of the following determinations: a) existing low or high ambient noise levels; or b) site-specific conditions or considerations as determined applicable by the designated approving authority only for new projects affected by existing non-transportation sources.

Source: City of Elk Grove General Plan [Table 8-4], December 13, 2023.

Policy N-1-4 Protect noise-sensitive land uses, identified in Table 8-3 [recreated herein as Table 4.9-4], from noise impacts.

Policy N-1-5 Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 8-3 [recreated herein as Table 4.9-4] or the performance standards of Table 8-4 [recreated herein as Table 4.9-5], an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.

Policy N-1-6 Where proposed nonresidential land uses are likely to produce noise levels exceeding the performance standards of Table 8-4 [recreated herein as Table 4.9-5] at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design

Policy N-1-7 The standards outlined in Table 8-4 [recreated herein as Table 4.9-5] shall not apply to transportation- and City infrastructure-related construction activities as long as construction occurs between the hours of 7 AM and 7 PM, Monday through Friday, and 8 AM and 5 PM 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.

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.

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.

Goal N-2 Community Noise Exposure is Minimized

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 [recreated herein as Table 4.9-5] 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 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 [recreated herein as Table 4.9-5] shall not apply to public projects to alleviate traffic congestion and safety hazards.

Policy N-2-3	Emphasize methods other than installation of sound walls in front yard areas to reduce noise to acceptable levels in residential areas that were originally constructed without sound walls.
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.

City of Elk Grove Noise Ordinance

The City of Elk Grove Municipal Code (EGMC) establishes noise level limits that are applicable to on-site Project-generated noise sources that would affect existing or proposed sensitive receptors. According to Section 6.32.150 of the EGMC, for any person to willfully make or cause to be made any loud, unnecessary or unusual noise which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to persons residing in the area is unlawful. In addition, Section 6.32.080 of the EGMC provides that for any person to create any noise that results in the exposure of sensitive receptors to noise levels that exceed the levels of Elk Grove General Plan Table 8-3 (recreated herein as Table 4.9-4) is unlawful.

EGMC Section 6.32.100 provides exemptions to the provisions of Section 6.32.150, including Section 6.32.150(E) regarding exemptions to 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 AM and 7:00 PM when located in close proximity to residential uses. Additionally, noise associated with the aforementioned activities not located in close proximity to residential uses may occur between the hours of 6:00 AM and 8:00 PM. However, 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 7:00 PM and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which would not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

City of Elk Grove Vibration Standards

EGMC Section 23.60.060 establishes performance standards related to uses that generate vibrations that may be considered a public nuisance or hazard on any adjacent property and provides the requirement that such vibrational sources shall be cushioned or isolated to prevent the generation of vibrations. Specifically, EGMC Section 23.60.060 establishes that uses causing vibration shall be operated in compliance with the following provisions: A) Uses shall not generate ground vibration that is perceptible without instruments by the average person at any point along or beyond the property line of the parcel containing the activities; B) uses, activities, and processes shall not generate vibrations that cause discomfort or annoyance to reasonable persons of normal sensitivity or which endanger the comfort, repose, health or peace of residents whose property abuts the property line of the parcel; C) uses shall not generate ground vibration that interferes with the operations of equipment and facilities of adjoining parcels; D) vibrations from temporary construction/demolition and vehicles that leave the subject parcel (e.g., trucks, trains, and aircraft) are exempt from the provisions of Section 23.60.060.

4.9.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze the potential impacts of the Project related to noise and vibration. In addition, a discussion of the Project's impacts, as well as mitigation measures where necessary, is also presented.

Impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required CEQA review. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Ballona Wetlands Land Trust v. City of Los Angeles,* [2011] 201 Cal.App.4th 455, 473 [*Ballona*]). The California Supreme Court has held that "CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate is an analysis of how a project might exacerbate existing environmental hazards." (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* [2015] 62 Cal.4th 369, 392; see also *Mission Bay Alliance v. Office of Community Investment & Infrastructure* [2016] 6 Cal.App.5th 160, 197 ["identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes"], quoting *Ballona*, *supra*, 201 Cal.App.4th at p. 474). Therefore, for the purposes of the CEQA analysis, the relevant inquiry is not whether the future residents of the Project would be exposed to pre-existing environmental noise-related hazards, but instead whether Project-generated noise would exacerbate the pre-existing conditions. Nonetheless, for informational purposes, this chapter considers both the Project's contribution to on- and off-site noise levels, as well as exposure of future residents of the Project to potential hazards associated with the preexisting noise environment, in order to demonstrate General Plan compliance.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact related to noise and vibration would occur if the Project would result in any of the following:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels; or
- For a project located within the vicinity of a private airstrip or 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 expose people residing or working in the project area to excessive noise levels (see Chapter 5, Effects Not Found to be Significant).

As noted above, issues related to whether the Project would result in the following impact are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

- For a project located within the vicinity of a private airstrip or 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 expose people residing or working in the project area to excessive noise levels.

Summary of Applicable Noise Standards

Applicable noise level standards from the City's General Plan and the EGMC are summarized below.

Construction Noise Criteria

The identification of "substantial increases" in construction noise depends upon the duration of the noise, the temporal daily nature of the noise, and the absolute change in dB levels. Pursuant to EGMC Section 6.32.100, construction activities operating between 7:00 AM and 7:00 PM near residential uses are exempt from the ordinance. However, the City has not adopted any formal threshold of significance for evaluating temporary construction noise which occurs within allowable hours. For short-term noise associated with Project construction, the City has elected to use the Caltrans increase criterion of 12 dBA, applied to existing residential receptors in the Project vicinity. A 12 dBA increase in noise level is approximately equivalent to a doubling of sound energy and has been the standard of significance for Caltrans projects at the State level for many years. The application of a 12 dBA increase threshold to construction activities is considered reasonable considering the temporary nature of construction activities.

Transportation Noise Criteria

Elk Grove General Plan Policy N-1-1 establishes the maximum allowable indoor and outdoor noise exposure levels from transportation noise sources, as provided in Table 4.9-4. Table 4.9-4 applies 60 dB L_{dn} exterior and 45 dB L_{dn} interior noise level standards for residential uses affected by transportation noise sources.

Non-transportation Source Noise Criteria

Elk Grove General Plan Policy N-1-2 establishes the noise level performance standards for projects affected by non-transportation noise sources, as provided in Table 4.9-5. Table 4.9-5 establishes a standard for typical stationary noise sources of 55 hourly L_{eq} during the daytime and 45 hourly L_{eq} at night. The standard for tonal, impulsive, or repetitive stationary noise sources is 50 hourly L_{eq} during the daytime and 40 hourly L_{eq} at night. In addition, the EGMC Section 6.32.080 establishes exterior noise standards at residential uses of 45 dBA L_{max} between the hours of 10:00 PM to 7:00 AM, and 55 dBA L_{max} between the hours of 7:00 AM to 10:00 PM. EGMC Section 6.32.080 establishes that, if the measured ambient noise level exceeds the permitted noise levels provided in Table 4.9-5, the allowable noise shall conform to the substantial increase criteria, as defined below.

Substantial Increase Criteria

Pursuant to Elk Grove General Plan Policy N-2-2 and EGMC Section 6.32.080, the following noise criteria shall be used as 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 shall be considered significant;
- 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 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 shall be considered significant.

The use of the Policy N-2-2 standards is considered conservative relative to thresholds used by other agencies in the State. For example, Caltrans requires a Project-related traffic noise-level increase of 12 dB for a finding of significance, and the California Energy Commission (CEC) considers Project-related noise-level increases between five to 10 dB significant, depending on local factors. Therefore, the use of the Elk Grove General Plan Policy N-2-2 standards, which set

the threshold for significant noise impacts as low as 1.5 dB, provides a conservative approach to impact assessment for the Project.

Vibration

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Construction activities have the potential to result in varying degrees of temporary ground vibration depending on the specific construction equipment used and operations involved. Table 4.9-6, which was developed by Caltrans, indicates that the vibration levels that would result in architectural damage to structures is 0.2 in/sec ppv and continuous vibrations of 0.1 in/sec ppv, or greater, would likely cause annoyance to sensitive receptors.

EGMC Section 23.60.060 establishes that uses which generate annoying or hazardous vibrations on any adjacent property shall be cushioned or isolated to prevent the generation of such vibrations. Furthermore, EGMC Section 23.60.060(D) establishes that vibrations from temporary construction/demolition and vehicles that leave a site are exempt. However, the EGMC section does not establish specific standards pertaining to vibration levels.

Table 4.9-6 indicates that, pursuant to Caltrans standards, the threshold for architectural damage to structures is 0.2 in/sec ppv and continuous vibrations of 0.1 in/sec ppv, or greater, would likely cause annoyance to sensitive receptors.

Table 4.9-6
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 - 0.30	0.006 - 0.019	Threshold of perception; possibility of intrusion.	Vibrations unlikely to cause damage of any type.
2.0	0.08	Vibrations readily perceptible.	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected.
2.5	0.10	Level at which continuous vibrations begin to annoy people.	Virtually no risk of “architectural” damage to normal buildings.
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations).	Threshold at which there is a risk of “architectural” damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize “architectural” damage.
10 - 15	0.4 - 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges.	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage.

Source: California Department of Transportation, 2002.

Consistent with Caltrans standards, Elk Grove General Plan Policy N-1-9 states that projects involving the use of major vibration-generating equipment that could generate groundborne vibration levels in excess of 0.2 in/sec ppv may require a project-specific vibration impact assessment to analyze potential groundborne vibrational impacts, including measurements to reduce vibration levels. As the Project would include construction activities which would use such

vibration-generating equipment a project-specific vibration impact assessment was included in the overall noise assessment prepared for the Project, as described in further detail, below.

Method of Analysis

Below are descriptions of the methodologies used in the Noise Assessment (see Appendix K of this EIR) to measure temporary construction noise, existing and cumulative traffic noise levels, with and without the Project, as well as Project operational noise. Further calculations are provided in Appendix K of this EIR.

Environmental Noise Assessment

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise-level measurement survey. The meters were calibrated before and after use with an LDL CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

In order to assess noise impacts due to temporary noise, Saxelby used the FHWA Roadway Construction Noise Model (RCNM) to predict noise levels for standard construction equipment used for roadway improvement projects. The assessment of potential significant noise effects due to construction is based on the standards and procedures described in the Federal Transit Authority (FTA) guidance manual and FHWA's RCNM. The RCNM is a noise prediction model that enables the prediction of construction noise levels for a variety of construction equipment based on a compilation of empirical data and the application of acoustical propagation formulas. The model enables the calculation of construction noise levels in more detail than manual methods, which eliminates the need to collect extensive amounts of project-specific input data. RCNM allows for the modeling of multiple pieces of construction equipment working either independently or simultaneously, the character of noise emission, and the usage factors for each piece of equipment.

Construction noise varies depending on the construction process, type of equipment involved, location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week), and the duration of the construction work. Noise sources in the RCNM database include actual noise levels and equipment usage percentages. Saxelby analyzed potential future construction noise associated with the Project using data compiled for various pieces of construction equipment at a distance of 50 feet inside the boundary of each component of the Project. Similarly, construction vibration was analyzed using data compiled for various pieces of equipment at a distance of 25, 50, and 100 feet.

Saxelby used the SoundPLAN noise modeling software to predict Project-generated noise levels at off-site and on-site receptors. Specifically, the aforementioned methodology was used to model the potential affects of on-site operational noise sources, primarily the proposed sport courts, on future on-site residences and the existing surrounding sensitive receptors. Inputs to the model include sound power levels for the proposed sport courts and parking lots, proposed structures, topography, and locations of sensitive receptors. According to the Noise Assessment, pickleball gameplay produces higher noise levels than tennis. Therefore, Saxelby conservatively modeled eight pickleball courts operating simultaneously during a peak hour of use. Saxelby assumed that nighttime (10:00 PM to 7:00 AM) use of the courts would not be permitted. Pickleball gameplay typically produces noise levels of 56 dBA L_{eq} at 25 feet from the edge of the side of the court and 61 dBA L_{eq} at 25 feet from the ends of the court based upon Saxelby's measurements at similar

facilities. Saxelby assumed that each court would operate at the level of activity simultaneously during daytime (7:00 AM to 10:00 PM) hours. With respect to other operational noise that would be generated by the Project, Saxelby assumed that the proposed parking lot near the courts would contribute to Project-generated noise levels. Saxelby assumed that up to 50 passenger vehicles could access the site in a peak hour; two heavy-truck movements were included in the noise modeling to account for potential garbage collection. Parking lot movements were predicted to generate an SEL of 71 dBA SEL at 50 feet for cars and 85 dBA SEL at 50 feet for trucks. The noise predictions conducted as part of the Project-specific Noise Assessment are made in accordance with International Organization for Standardization (ISO) standard 9613-2:2024-01 (Acoustics – Attenuation of sound during propagation outdoors).

To assess noise impacts due to traffic increases on the local roadway network associated with development of the Project, traffic noise levels were predicted at sensitive receptors for Existing, Existing Plus Approved Projects (EPAP), and Cumulative conditions, both with and without the Project. The EPAP setting includes projects within the City which have already been approved for development by the Planning Commission or City Council. The Cumulative setting includes future probable projects in the City anticipated to occur within the Project vicinity, such as the Elliott Springs Subdivision, Summer Park Estates, Pleasant Grove Estates Rezone and Subdivision Map, Summer Flats, Summer Meadows Map and Rezone, and 9826 Bond Road Map projects.[4] Noise levels due to traffic were calculated using the FHWA-RD-77-108 noise prediction model. The model is based upon the Calveno reference noise factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict traffic noise levels in terms of L_{dn}, the input volume was adjusted to account for the day/night distribution of traffic.

Project trip generation and traffic volumes were provided by the Project traffic consultant, Fehr & Peers. Truck usage and vehicle speeds on the local area roadways were estimated from field observations. The predicted increases in traffic noise levels on the local roadway network for Existing, EPAP, and Cumulative conditions resulting from the Project are provided in terms of L_{dn}.

Traffic noise levels were predicted at off-site existing sensitive receptors at the closest typical setback distance along each Project-area roadway segment. In some locations, sensitive receptors may not receive full shielding from noise barriers or may be located at distances which vary from the assumed calculation distance. The Project would consist of the request for a new Special Planning Area (SPA), and does not involve immediate development of the site. Because the anticipated on-site residential uses would not be developed immediately as a result of the Project, modeling of traffic noise levels at future on-site sensitive receptors was completed using Cumulative Plus Project conditions. Saxelby used the SoundPLAN noise model to calculate traffic noise levels at the anticipated residential uses due to traffic on Waterman Road and Sheldon Road. Inputs to the SoundPLAN noise model include results of the FHWA modeling using Cumulative Plus Project trip volumes provided by the traffic engineer, Fehr & Peers, as well as topography, existing structures, roadway elevations, and the proposed building pad elevations.

[4] City of Elk Grove. *Private Development Projects in the City of Elk Grove.* Available at; https://www.elkgrove.gov/planning/current-planning-projects-and-area-plans. Accessed July 2025.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Project in comparison with the standards of significance identified above.

4.9-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below, even with implementation of mitigation, the impact is *significant and unavoidable*.

The Project would include future development of the site with up to 499 age-restricted single residential units. As discussed in further detail in Chapter 3, Project Description, of this EIR, development of the Project would also trigger the need for off-site improvements. Construction activities associated with the Project, including off-site improvements, would require the use of numerous pieces of noise-generating equipment, such as excavating machinery (e.g., backhoes, bulldozers, excavators, front loaders) and other construction equipment (e.g., compactors, scrapers, graders). Construction worker traffic and construction-related material haul trips would raise ambient noise levels along local haul routes, depending on the number of haul trips made and types of vehicles used.

The following discussions address the potential temporary increases in ambient noise levels from the Project on the surrounding environment due to on-site and off-site construction activities.

On-Site Construction Noise

During construction of the Project, heavy equipment would be used for site preparation, grading, building construction, paving, and utility installation, which would temporarily increase ambient noise levels when in use. Noise levels would vary depending on the type and operation of equipment and how well the equipment is maintained. Noise exposure at any point outside the site would also vary depending on the distance from the source. Table 4.9-7, below, presents the maximum and hourly average noise levels at a distance of 50 feet for equipment which would be used during construction activities for the Project at full-power operation. As shown in Table 4.9-7, the loudest phases of on-site construction would be site preparation, grading, building construction, and construction associated with the linear drainage, utilities, and sub-grade improvements, with an hourly average noise level of 88 dBA L_{eq} at 50 feet from the center of activity. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways associated with transport of heavy materials and equipment to and from the construction site. Increases in construction-related truck traffic would be of short duration and would be expected to occur during daytime hours.

Table 4.9-7
Construction Equipment Noise Levels at 50 Feet

Equipment	Quantity	Usage (%)	L_{max} dBA	Hourly L_{eq} dBA
Demolition				
Dozer	2	40	82	81
Excavator	3	40	81	82
Concrete Saw	1	20	90	83
Total	--	--	--	**87**
Site Preparation				
Dozer	3	40	82	83
Tractor/Loader/Backhoe	4	40	84	86
Total	--	--	--	**88**
Grading				
Grader	1	40	85	81
Excavator	2	40	81	80
Tractor/Loader/Backhoe	2	40	84	83
Scraper	2	40	84	83
Dozer	1	40	82	78
Total	--	--	--	**88**
Building Construction				
Fork Lift	3	40	83	84
Generator	1	50	81	78
Crane	1	16	81	73
Welder/Torch	1	40	74	70
Tractor/Loader/Backhoe	3	40	84	85
Total	--	--	--	**88**
Paving				
Paver	2	50	77	77
Paving Equipment	2	50	77	77
Roller	2	20	80	76
Total	--	--	--	**81**
Architectural Coating				
Air Compressor	1	40	79	75
Total	--	--	--	75
Linear, Drainage, Utilities, and Sub-Grade				
Air Compressor	1	40	79	75
Concrete Saw	1	20	90	83
Generator	1	50	81	78
Generator (<25K VA, VMS signs)	3	50	73	75
Tractor/Loader/Backhoe	2	40	84	83
Slurry Trenching Machine	1	50	80	77
Paving Equipment	1	50	77	74
Total	--	--	--	**88**

Source: Saxelby Acoustics, LLC, 2025.

As previously discussed, the City has elected to use the Caltrans increase criterion of 12 dBA, applied to existing residential receptors in the Project vicinity. Caltrans defines a significant increase due to construction noise as an increase of 12 dBA over existing

ambient noise levels. In addition, EGMC Section 6.32.100 provides exemptions to 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 AM and 7:00 PM when located in close proximity to residential uses.

As part of the Noise Assessment, Saxelby modeled the predicted construction noise level increases for the Project based on the construction equipment noise levels shown in Table 4.9-7. The predicted construction noise level increases at the nearest sensitive receptors in the site vicinity are presented in Table 4.9-8; the on-site noise contours associated with project construction and the locations of the nearest sensitive receptors presented in Table 4.9-8 are shown in Figure 4.9-3. Based on the noise level increases shown in Table 4.9-8 and Figure 4.9-3, the greatest construction noise level increase at an existing sensitive receptor would be 10.2 dBA, which is below the applicable 12 dBA threshold of significance.

Table 4.9-8
Construction Noise Level Increases (dBA L_{eq})

Receptor	Existing Ambient	Construction Noise	Ambient + Construction	Increase
1	63.6	49.2	63.8	0.2
2	62.6	57.8	63.8	1.2
3	61.5	57.8	63.0	1.5
4	61.2	57.9	62.9	1.7
5	52.5	59.1	60.0	7.5
6	42.3	50.4	51.0	8.7
7	40.0	49.8	50.2	10.2
8	52.6	48.5	54.0	1.4
9	57.1	47.5	57.6	0.5

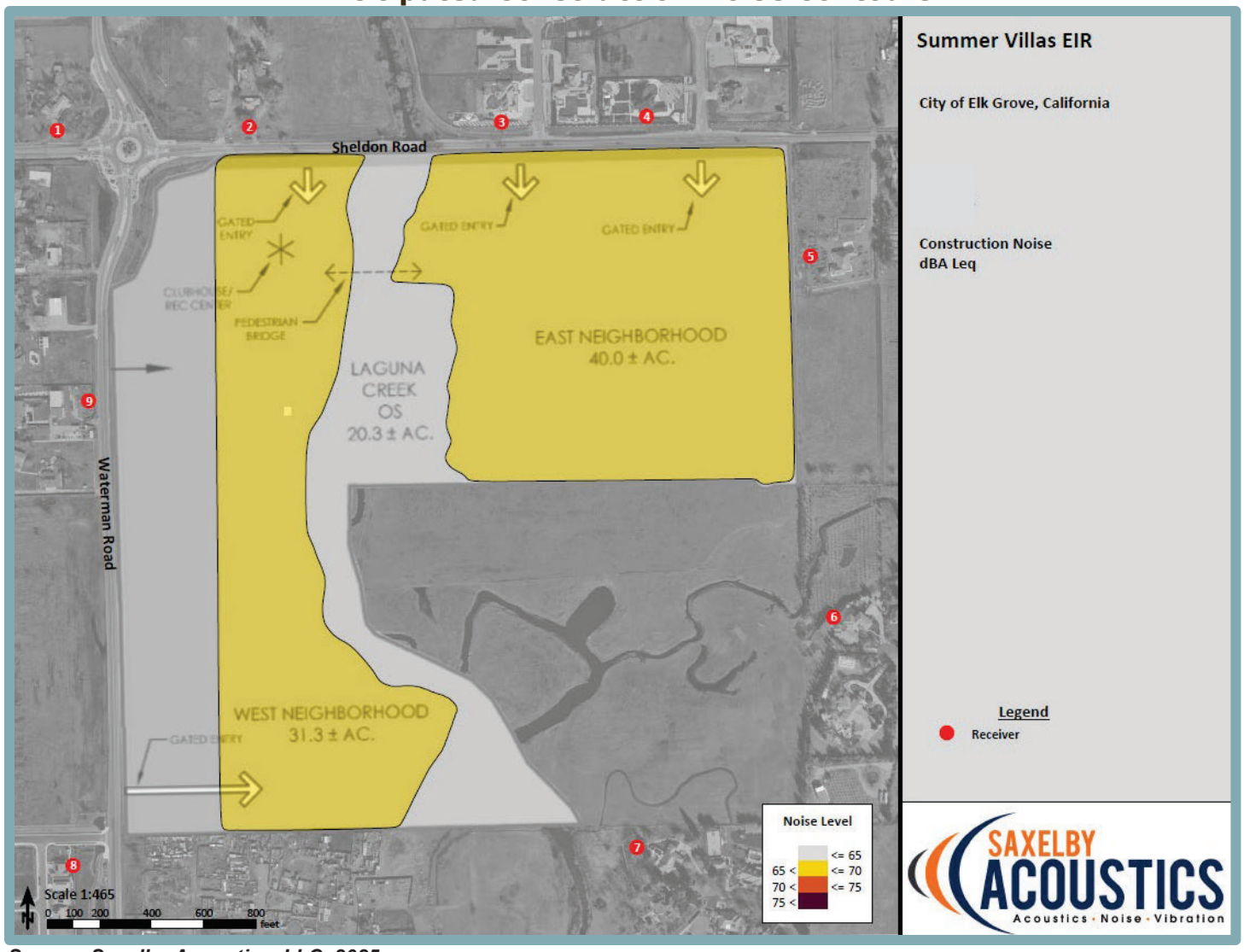
Source: Saxelby Acoustics, LLC, 2025.

Construction activities are temporary in nature and are anticipated to occur during normal daytime working hours. However, because the Project would consist of the approval of an SPA that would include future on-site construction that is not currently proposed, construction details are not currently available and a detailed analysis of construction noise accordingly cannot be conducted at this time. As such, construction noise associated with future buildout of the on-site residential uses could result the temporary increase in ambient noise levels in the Project vicinity in excess of standards established in the general plan or noise ordinance, which would be considered a significant impact.

Off-Site Construction Noise

The Project would include a number of off-site roadway and utility improvements, including the construction of approximately 6,500 linear feet of off-site force mains in Sheldon Road and Elk Grove Florin Road, the extension of water mains to either connect to an existing main in Waterman Road or near Elk Grove Florin Road, and the reconfiguration of two roundabouts at the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections. The foregoing off-site improvement areas would primarily be within existing disturbed areas and/or within existing roadway rights-of-way.

Figure 4.9-3
Anticipated Construction Noise Contours



Source: Saxelby Acoustics, LLC, 2025.

*Figure not OCR compatible.

As shown in Table 4.9-7, linear drainage, utilities, and sub-grade improvements would produce noise levels of approximately 88 dBA L_{eq} at 50 feet. The typical setback distance for residences along the aforementioned roadways is approximately 85 feet.

Assuming an attenuation rate of six dB per doubling of distance, the increase in noise levels at the nearest existing sensitive receptors associated with the proposed off-site improvements was estimated and is presented in Table 4.9-9 below. As shown in Table 4.9-9, construction of the off-site improvements is anticipated to generate noise level increases of at least 16.6 dBA, which would exceed the applicable threshold of significance of 12 dBA.

Conclusion

Based on the above, the Project could result in the generation of a substantial temporary increase in ambient noise. Therefore, a temporary ***significant*** impact could occur.

Mitigation Measure(s)

As discussed above, because the Project consists of a SPA entitlement and would include future on-site development, but does not currently propose construction of the anticipated on-site residences, implementation of Mitigation Measure 4.9-1(a) would be required to ensure construction noise associated with potential future on-site construction would be below the applicable 12 dBA threshold of significance. Implementation of Mitigation Measure 4.9-1(b) would reduce construction noise associated with the proposed off-site improvements by an average of five dBA, as shown in Table 4.9-10. However, as shown in Table 4.9-10, even with implementation of Mitigation Measure 4.9-1(b), the increase in noise levels at the nearest sensitive receptors along Waterman Road, Sheldon Road, and Elk Grove Florin Road would still exceed the applicable increase threshold of 12 dBA.

Therefore, although implementation of the following mitigation measures would reduce the above significant impact, the temporary impact related to the proposed off-site improvements would remain *significant and unavoidable.*

4.9-1(a) *Prior to the approval of grading and/or building permits, or any permit that results in the use of construction equipment, the following requirements shall be noted on Improvement Plans, subject to review and approval of the City of Elk Grove Community Development Department:*

- *Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the hours of 7:00 AM and 7:00 PM, daily, when located in close proximity to residential uses;*
- *All construction equipment powered by internal-combustion engines shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with the manufacturer's recommendations. Equipment engine shrouds shall be closed during equipment operation;*

- *When not in use, motorized construction equipment shall not be left idling for more than five minutes;*
- *All stationary noise-generating construction equipment, such as generators or air compressors, are to be located as far as practical from existing residences. In addition, the Project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest to the site; and*
- *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest to the site during all Project construction.*

4.9-1(b) *Prior to the approval of grading permits, or permits that would result in the use of construction equipment in an off-site construction area, the Project shall incorporate eight-foot-tall temporary sound barriers along the boundary of the off-site construction area adjacent to the existing sensitive receptors.*

The sound barrier fencing shall consist of 0.5-inch plywood or minimum Sound Transmission Class (STC) 27 sound curtains placed to shield nearby sensitive receptors. The plywood barrier shall be free from gaps, openings, or penetrations to ensure maximum performance. The requirements of the temporary sound barriers shall be noted on Improvement Plans, subject to review and approval of the City of Elk Grove Community Development Department.

4.9-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below, the impact is *less than significant.*

Given the residential nature of the Project, noise sources associated with operation of the Project would consist of noise from Project-generated traffic along roadways in the site vicinity. Potential impacts related to Project-generated traffic noise at existing sensitive receptors are discussed further below.

In addition, as discussed previously, CEQA does not require an analysis of the environment's impact on a proposed project; however, effects to future residents of the Project due to operation of the proposed on-site sport courts are evaluated for the purposes of considering the Project's consistency with noise-related policies in the Elk Grove General Plan. While not an environmental issue required for analysis under CEQA, the City would condition the Project to address identified noise effects on future residents of the Project as part of Project approval.

Table 4.9-9
Off-Site Construction Noise Level Increases

Segment	Approximate Distance from Sensitive Receptors to Construction (feet)	Predicted Construction Noise Levels (dBA L_{eq})	Existing Daytime Ambient (dBA L_{eq})	Existing Daytime + Construction (dBA L_{eq})	Daytime Difference (dBA L_{eq})
Waterman Road	85	83.4	52.0	83.4	**31.4**
Sheldon Road	85	83.4	62.0	83.4	**21.4**
Elk Grove Florin Road	85	83.4	61.5	83.4	**21.9**
Sheldon Road/Waterman Road Roundabout	150	78.5	62.0	78.6	**16.6**
Sheldon Road/Bradshaw Road Roundabout	150	78.5	62.0	78.6	**16.6**

Note: **bold** = exceeds 12 dBA threshold.

Source: Saxelby Acoustics, LLC, 2025.

Table 4.9-10
Off-Site Construction Noise Level Increases with Noise Barriers

Segment	Approximate Distance from Sensitive Receptors to Construction (feet)	Predicted Construction Noise Levels (dBA L_{eq})	Existing Daytime Ambient (dBA L_{eq})	Existing Daytime + Construction (dBA L_{eq})	Daytime Difference (dBA L_{eq})
Waterman Road	85	83.4	52.0	83.4	**26.4**
Sheldon Road	85	83.4	62.0	83.4	**16.5**
Elk Grove Florin Road	85	83.4	61.5	83.4	**17.0**
Sheldon Road/Waterman Road Roundabout	150	78.5	62.0	78.6	11.8
Sheldon Road/Bradshaw Road Roundabout	150	78.5	62.0	78.6	11.8

Note: **bold** = exceeds 12 dBA threshold.

Source: Saxelby Acoustics, LLC, 2025.

Traffic Noise at Existing Noise-Sensitive Receptors

Based on information provided by Fehr & Peers and using the methodology described above in the Method of Analysis section, traffic noise levels under Existing and Existing Plus Project conditions were estimated as part of the Noise Assessment and are summarized in Table 4.9-11.

The estimated noise levels are predicted at the existing sensitive receptors located at the closest typical setback distance along each Project-area roadway segment. Table 4.9-11 also includes an assessment of predicted traffic noise-level increases relative to existing ambient conditions in accordance with the noise-level-increase significance criteria pursuant to EGMC Section 6.32.080. As discussed above, a significant impact would result if, where existing ambient noise levels are less than 60 dBA, noise levels would increase by five dBA, or, where existing ambient noise levels range between 60 and 65 dBA, noise levels would increase by three dBA.

As shown in Table 4.9-11, the increase in traffic noise levels at the existing sensitive receptors located near roadway segments along Bond Road, Sheldon Road, and Waterman Road attributable to the Project under Existing Plus Project conditions would result in a maximum noise level increase of 0.5 dBA, which would be below the applicable increase significance criteria pursuant to EGMC Section 6.32.080. Therefore, the Project would not result in a substantial permanent increase in ambient noise levels at existing sensitive receptors due to Project-generated traffic noise.

Traffic Noise at Proposed Sensitive Noise-Receptors

The Project would include the development of residential uses immediately south of Sheldon Road. As shown in Figure 4.9-4, exterior traffic noise levels are predicted to be 67 dBA L_{dn} at the proposed on-site residences adjacent to Sheldon Road at the ground level. Such noise levels would exceed the City's exterior noise level standard of 60 dBA L_{dn}. As such, the construction of eight-foot-tall sound barriers along Sheldon Road, north of the proposed on-site residences is recommended. As shown in Figure 4.9-5, the sound barriers would reduce noise levels at the outdoor areas of the proposed residences to 59 dBA L_{dn} or below, which would comply with the City's 60 dBA L_{dn} exterior noise level standard.

Therefore, to ensure that the Project complies with the City's noise level standards the SPA would include the construction of noise barriers prior to the issuance of a building permit as set forth below:

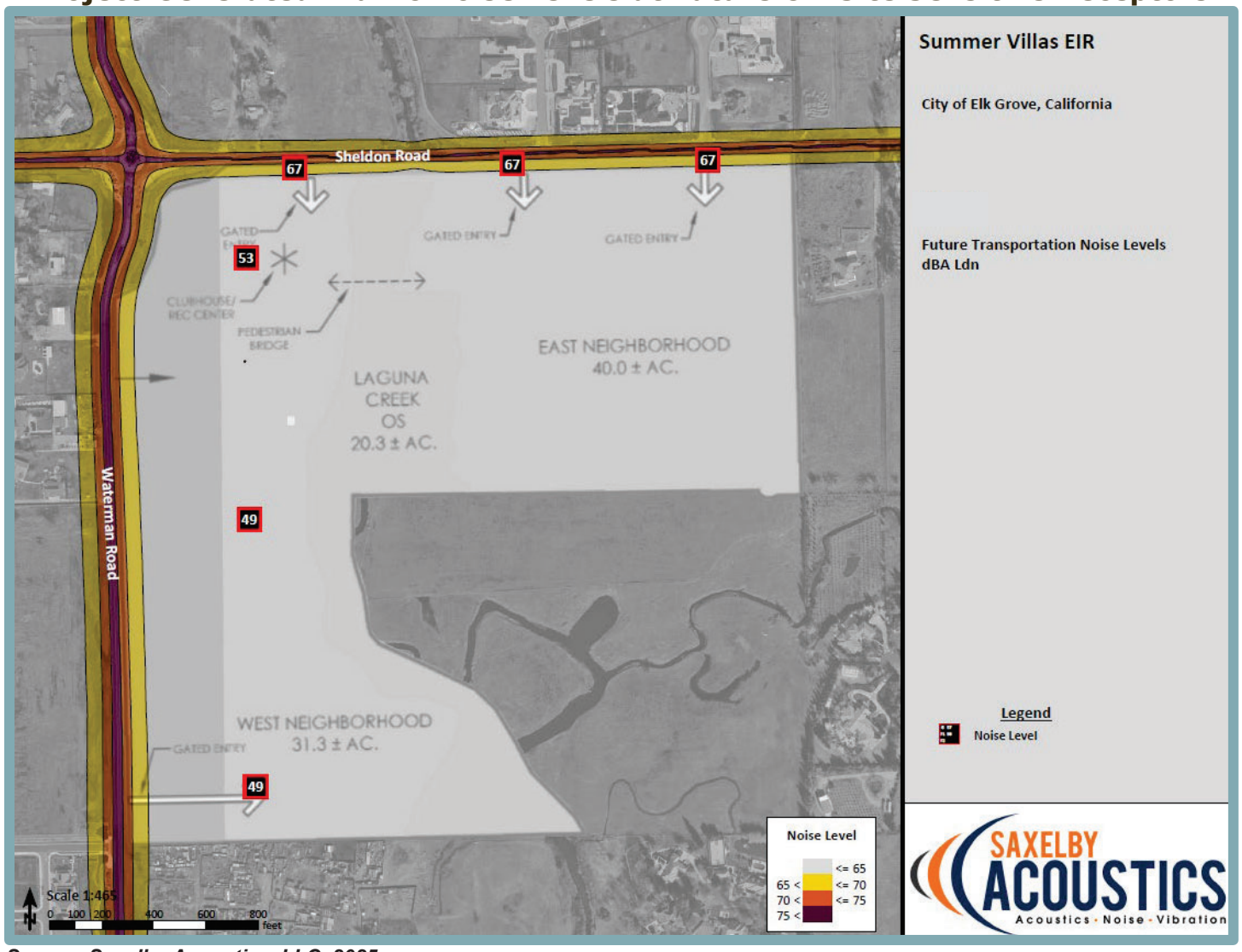
- The Project shall construct eight-foot-tall sound barriers along Sheldon Road, as shown in Figure 4.9-5. The barriers may be comprised of a combination of earthen berm and masonry wall to achieve the required wall height. Wall heights may be measured relative to either pad or roadway centerline elevation, whichever is higher. The barrier shall be required for all first-row receiver rooms with a view of Sheldon Road. Other types of barriers may be employed but shall be reviewed by an acoustical engineer prior to being constructed to ensure the alternative noise barriers would adequately reduce traffic noise below the City's noise level standard.

Table 4.9-11
Predicted Traffic Noise Level and Project-Related Traffic Noise Level Increases

Roadway	Segment	Predicted Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptors			Threshold	Exceeds Threshold?
		Existing	Existing + Project	Change		
Bond Road	West of Waterman Road	60.7	60.8	0.1	+3.0	No
Bradshaw Road	North of Sheldon Road	60.8	60.8	0.0	+3.0	No
Sheldon Road	Elk Grove Florin Road to Waterman Road	58.2	58.4	0.2	+5.0	No
Sheldon Road	Waterman Road to Bradshaw Road	58.5	59.0	0.5	+5.0	No
Sheldon Road	West of Elk Grove Florin Road	59.1	59.4	0.3	+5.0	No
Waterman Road	Calvine Road to Sheldon Road	52.6	52.8	0.2	+5.0	No
Waterman Road	Sheldon Road to Bond Road	57.9	58.1	0.2	+5.0	No
Waterman Road	North of Calvine Road	57.3	57.4	0.1	+5.0	No
Waterman Road	South of Bond Road	59.1	59.2	0.1	+5.0	No

Source: Saxelby Acoustics, LLC, 2025.

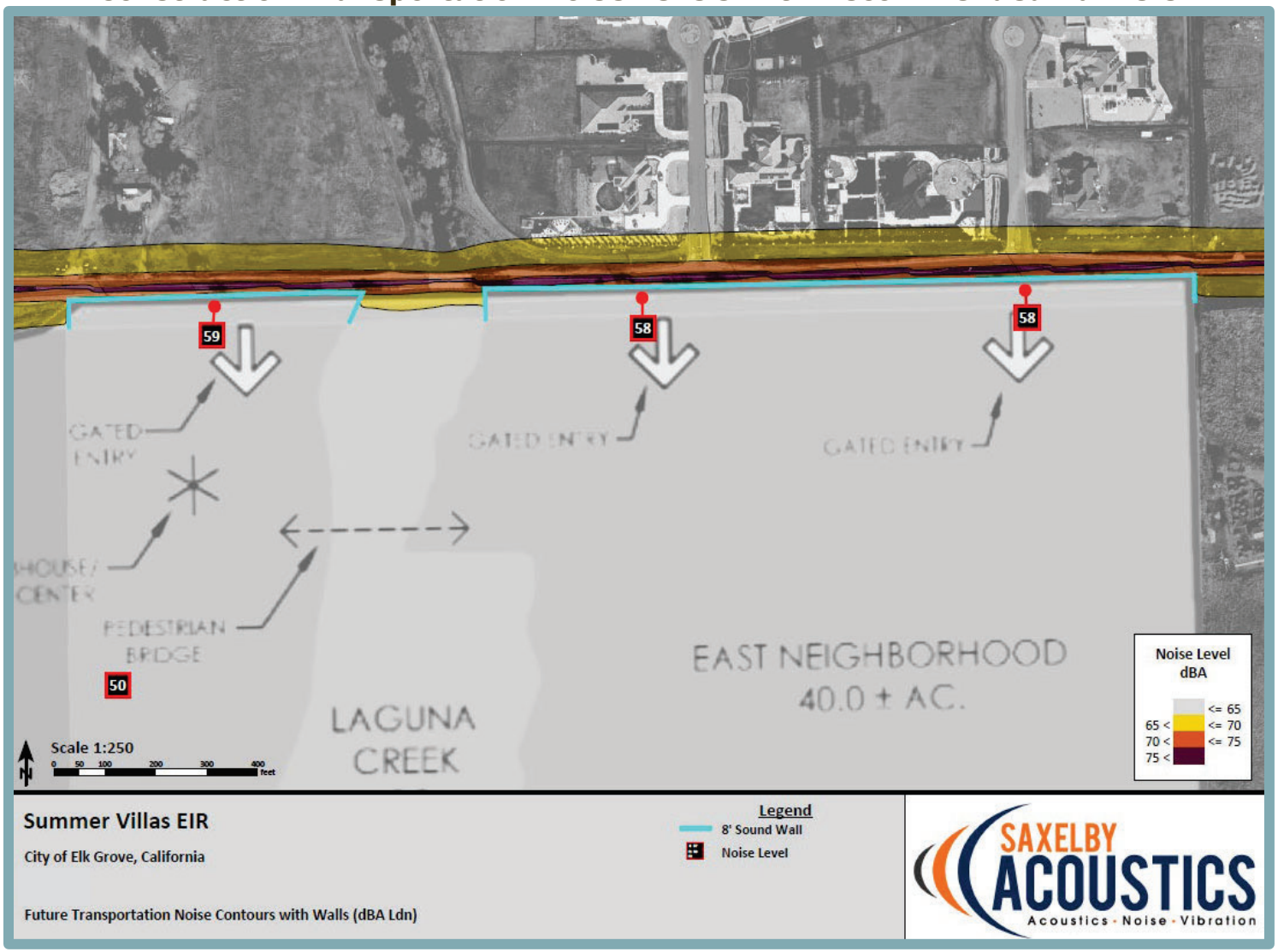
Figure 4.9-4
Project-Generated Traffic Noise Levels at Future On-Site Sensitive Receptors



Source: Saxelby Acoustics, LLC, 2025.

*Figure not OCR compatible.

Figure 4.9-5
Construction Transportation Noise Levels with Recommended Barriers



Source: Saxelby Acoustics, LLC, 2025.

*Figure not OCR compatible.

It should be noted that, while two-story residences are not anticipated as part of buildout of the Project, Saxelby analyzed potential noise level exposure at second-floor receivers as a conservative approach, as second floor receivers are typically exposed to noise levels two to three dB higher than ground floor receivers. According to the Noise Assessment, exterior noise levels of up to 70 dBA L_{dn} could be experienced at second-floor exterior facades. However, with inclusion of the sound barriers, the noise levels would be reduced to below the City's 60 dBA L_{dn} exterior noise level standard.

According to the Noise Assessment, conventional building construction, which assumes a minimum STC 29 rated glazing on all windows, results in an exterior-to-interior noise level reduction of 25 dBA. Thus, the interior noise levels anticipated at the proposed residences along Sheldon Road with the inclusion of the sound barriers would be below 45 dBA $L_{dn,}$ which would comply with the City's 45 dBA L_{dn} interior noise level standard.

Operational Noise at Existing Sensitive Receptors

As previously discussed, future development of the Project could also trigger the need for off-site improvements along portions of Sheldon Road, Elk Grove Florin Road, Waterman Road, and Bradshaw Road. However, once off-site improvements are constructed, additional noise impacts associated with such off-site improvements would not occur. Thus, the below analysis focuses on on-site operational noise sources only.

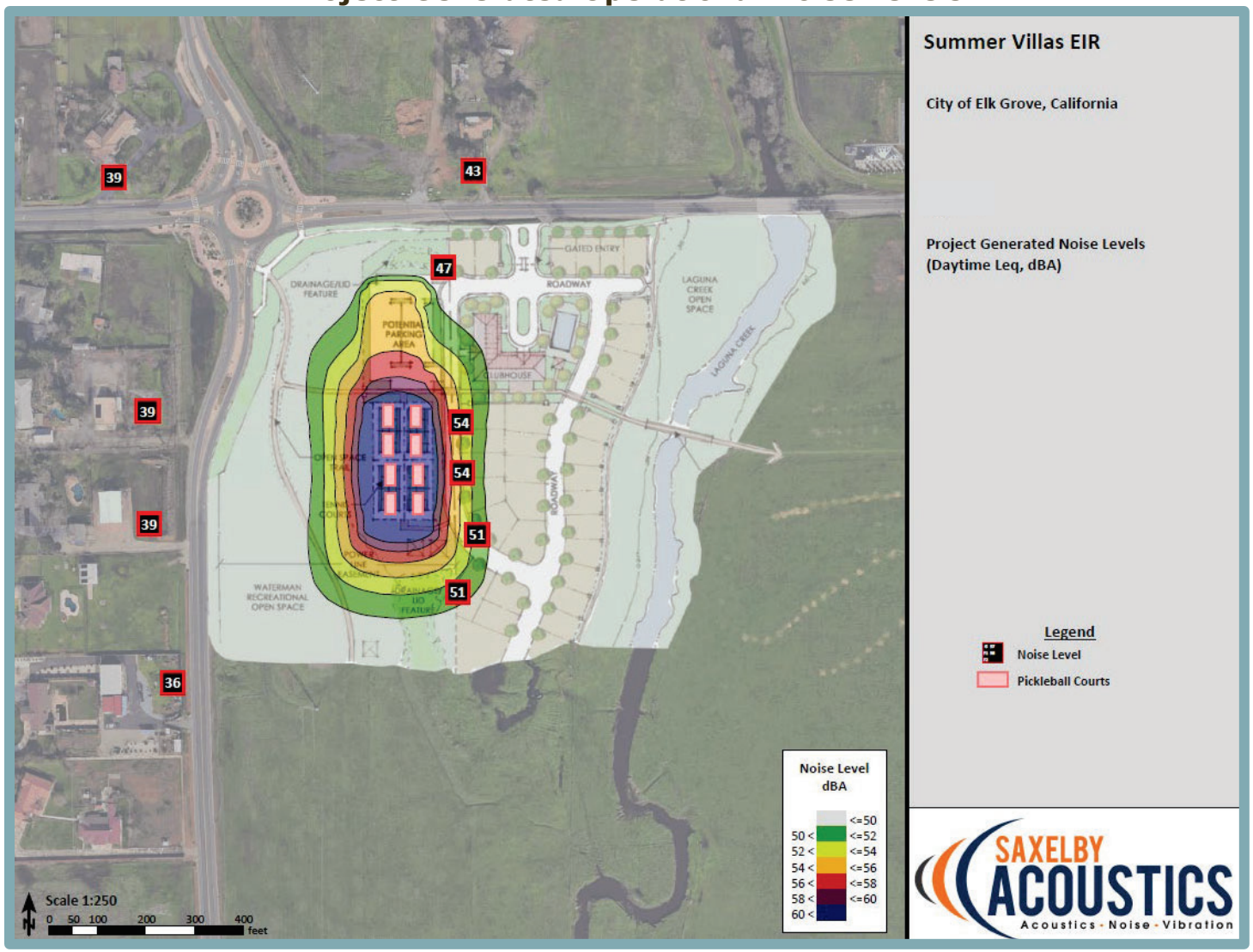
The proposed residential development would not be anticipated to generate substantial operational noise. However, the Project would include the Waterman Recreational Open Space, which would be developed with recreational uses in support of the residential area, including the potential development of several sport courts, which could be developed as tennis courts and/or pickleball courts, as well as the associated parking lot.

The Project's estimated operational noise levels from the proposed sport courts and parking lot movements at the existing off-site noise-sensitive receptors are shown in Figure 4.9-6. As shown in Figure 4.9-6, the proposed sport courts and associated parking lots are predicted to generate a maximum noise level of 43 dBA L_{eq} at the existing off-site residences to the north.

Because pickleball noise is considered to be impulsive, the applicable daytime noise level threshold would be 50 dBA L_{eq} pursuant to Elk Grove General Plan Policy N-1-2. As such, operation of the Project would not result in noise levels at off-site noise-sensitive receptors in excess of the applicable noise level standards for residential uses.

Assuming the noise measurement locations in Figure 4.9-1 are representative of the sensitive noise receptors presented in Figure 4.9-6, the existing ambient noise levels at the sensitive receptors in Figure 4.9-6 are between 56 dBA L_{dn} and 64 dBA L_{dn}. It should be noted that the noise contours in Figure 4.9-6 are presented over the Conceptual Site Plan presented in Figure 3-6 of Chapter 3, Project Description, of this EIR.

Figure 4.9-6
Project-Generated Operational Noise Levels



Source: Saxelby Acoustics, LLC, 2025.

*Figure not OCR compatible.

Pursuant to Elk Grove General Plan Policy N-2-2, a substantial increase in noise would occur if a noise increase of 3.0 dB L_{dn} occurred where existing ambient noise levels are 60 to 65 dB L_{dn} at outdoor activity areas, or if a noise increase of 5.0 dBA L_{dn} occurred where existing ambient noise levels were less than 60 dB L_{dn} at outdoor activity areas.

As discussed above, the proposed sport courts and associated parking lots are predicted to generate a maximum noise level of 43 dBA L_{eq} at the existing off-site residences to the north, which is less than the ambient noise levels at such sensitive receptors. Therefore, Project operations would not result in any increase in operational noise at the existing noise-sensitive receptors in the site vicinity.

Based on the above, Project operational noise at off-site receptors would be below the applicable thresholds of significance, and Project operations would not result in a significant increase in noise beyond the existing ambient noise levels. Therefore, the Project would not result in a significant impact related to operational noise levels at existing sensitive receptors.

Operational Noise at Proposed Sensitive Receptors

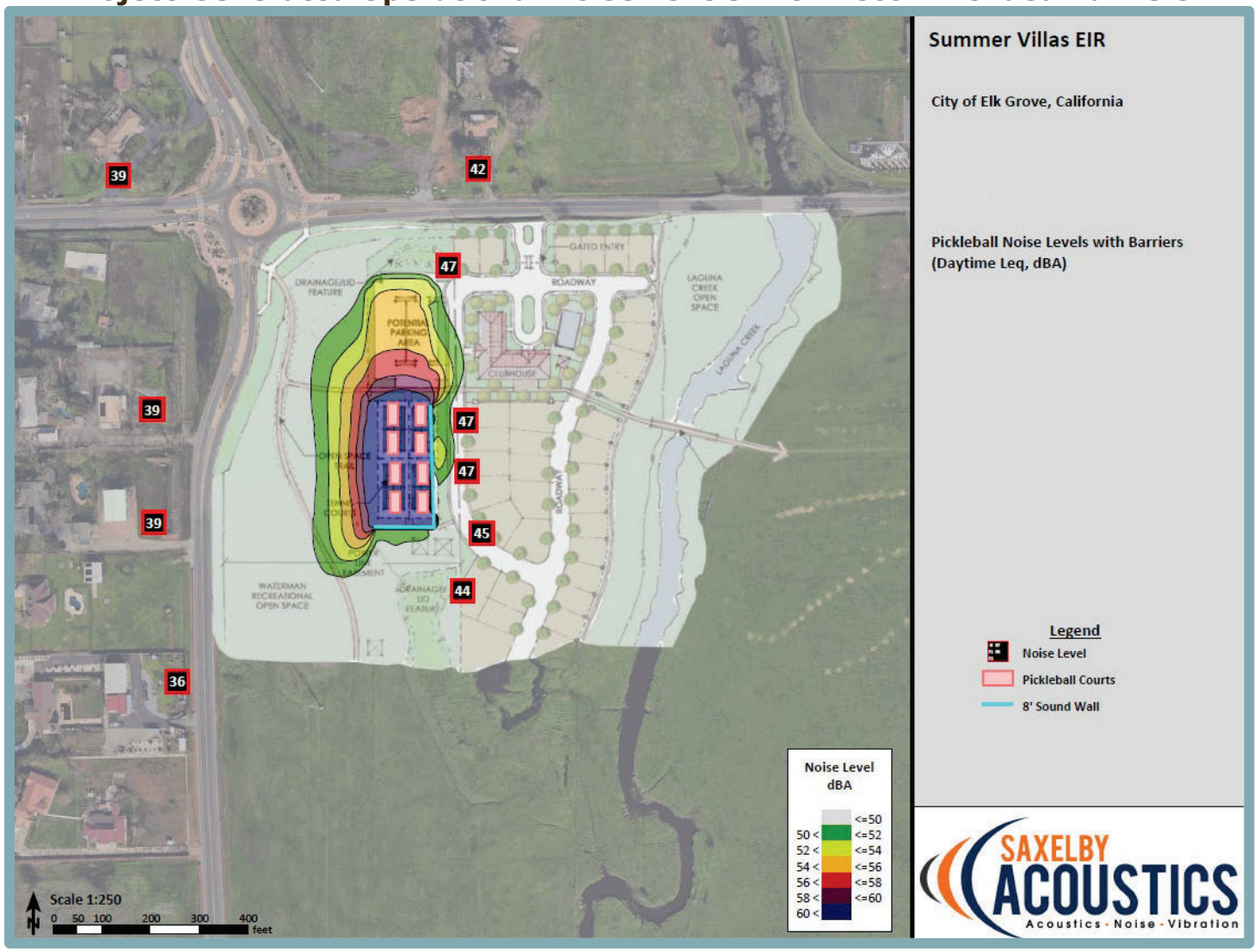
The closest proposed residential uses within the site to the anticipated sport courts and associated parking areas would be located in the central portion of the site, within the West Neighborhood, west of the sport court area and potential parking areas. According to the Noise Assessment, the maximum noise levels from the sport court activities would be approximately 54 dBA L_{eq} at the proposed on-site residences, which would exceed the applicable City standard of 50 dBA L_{dn} during daytime hours.

As such, construction of eight-foot-tall sound barriers along the eastern and southern borders of the sport courts is recommended. As shown in Figure 4.9-7, the sound barriers would reduce noise levels in the outdoor areas of the proposed residences to 47 dBA or below, which would comply with the City's 50 dBA L_{dn} daytime noise level standard. It should be noted that the noise contours in Figure 4.9-7 are presented over the Conceptual Site Plan as presented in Figure 3-6 of Chapter 3, Project Description, of this EIR.

As previously discussed, the noise effects of the existing environment on the proposed on-site residences are not environmental issues requiring analysis under CEQA. Nonetheless, to ensure the Project complies with the City's noise level standards, the SPA would include the noise barriers as set forth below:

- Eight-foot-tall sound barriers shall be installed at the eastern and southern boundaries of the proposed sport courts as shown in Figure 4.9-7. The barriers shall be comprised of Concrete Masonry Unit (CMU) walls. The Barrier units shall be installed such that gaps between the barrier units or gaps between the barrier and the ground do not occur.

Figure 4.9-7
Project-Generated Operational Noise Levels with Recommended Barriers



Source: Saxelby Acoustics, LLC, 2025.

*Figure not OCR compatible.

Conclusion

Based on the above, the Project would not result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the Elk Grove General Plan, or applicable standards of other agencies. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.9-3 Generation of excessive groundborne vibration or groundborne noise levels. Based on the analysis below, the impact is *less than significant*.

The Project would consist of an active adult residential community with recreation amenities to serve the future residents. Such uses do not typically involve equipment that generate appreciable vibration during operational activities. Overall, operation of the Project would not result in the generation of excessive groundborne vibration or groundborne noise levels.

However, construction activities associated with development of the Project, including off-site improvements, would have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. Both on- and off-site construction would use typical construction equipment and would not require significant sources of vibration such as pile driving or blasting. Table 4.9-12 below shows the vibration levels produced by typical construction equipment.

Table 4.9-12 indicates that construction vibration levels anticipated for typical construction equipment are less than the 0.2 in/sec ppv threshold at distances of 26 feet. The nearest sensitive receptors to the site that could be impacted by construction-related vibrations, especially vibratory compactors/rollers, are existing rural residences located to the north, across Sheldon Road, east, southeast, and to the west, across Waterman Road. All on- and off-site sensitive receptors which could be impacted by construction-related vibrations are located further than 26 feet from any potential construction activity areas. At distances greater than 26 feet, construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would occur during normal daytime working hours.

Based on the above, the Project would not result in generation of excessive groundborne vibration or groundborne noise levels, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Table 4.9-12
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)	PPV at 100 feet (in/sec)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/Drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/Roller	0.210 (less than 0.2 at 26 feet)	0.074	0.026

Source: Saxelby Acoustics, LLC, 2025.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. For further detail related to the cumulative setting of the Project, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.9-4 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove. Based on the analysis below, the impact is *less than significant*.

Future development projects within the City of Elk Grove would incrementally affect the cumulative ambient noise environment. Given the primarily residential nature of the Project, the primary Project component that could combine with noise impacts from surrounding development in the Project region would be associated with vehicle traffic generated by development of the site and other planned development projects. Together, cumulative vehicle traffic could potentially result in a significant cumulative impact related to transportation noise. It should be noted that once constructed, the off-site improvements would not involve noise generation.

In order to assess the potential noise impacts due to traffic increases from the Project on the local roadway network under EPAP and Cumulative conditions, noise levels have been calculated under such conditions at the nearest existing sensitive receptors using the methodology described in the Method of Analysis section.

The EPAP setting includes projects in the City which have already been approved. According to the Noise Assessment, noise level increases associated with the EPAP conditions would result in a maximum traffic noise level increase of 0.5 dBA. Table 4.9-13 compares EPAP No Project with EPAP Plus Project traffic noise levels to determine if the Project's contribution to the cumulative traffic noise environment is

considerable. As shown in the table, noise level increases under EPAP Plus Project conditions would result in a maximum traffic noise level increase of 0.5 dBA, which would be below the applicable +3.0 or +5.0 dBA increase significance criteria. Thus, the noise level increases associated with the Project under EPAP Plus Project conditions would not exceed the applicable threshold.

Table 4.9-14 compares Cumulative No Project with Cumulative Plus Project traffic noise levels to determine if the Project's contribution to the cumulative traffic noise environment is considerable. As shown in the table, noise level increases under Cumulative Plus Project conditions would result in a maximum traffic noise level increase of 0.4 dBA, which would be below the applicable increase significance criteria. Thus, the noise level increases associated with the Project under Cumulative Plus Project conditions would not exceed the applicable threshold.

Based on the above, under both EPAP and Cumulative Plus Project conditions, the Project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the Elk Grove General Plan, or applicable standards of other agencies. Therefore, a ***less-than-significant*** cumulative impact would occur.

Mitigation Measure(s)

None required.

Table 4.9-13
Predicted EPAP Traffic Noise Levels

Roadway	Segment	Predicted Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptor			Threshold of Significance	Exceeds Threshold?
		EPAP No Project	EPAP + Project	Change		
Bond Road	West of Waterman Road	60.9	61.0	0.1	+3.0	No
Bradshaw Road	North of Sheldon Road	60.8	60.9	0.1	+3.0	No
Sheldon Road	Elk Grove Florin Road to Waterman Road	58.2	58.4	0.2	+5.0	No
Sheldon Road	Waterman Road to Bradshaw Road	58.5	59.0	0.5	+5.0	No
Sheldon Road	West of Elk Grove Florin Road	59.0	59.4	0.4	+5.0	No
Waterman Road	Calvine Road to Sheldon Road	52.7	52.8	0.1	+5.0	No
Waterman Road	Sheldon Road to Bond Road	57.9	58.1	0.2.	+5.0	No
Waterman Road	North of Calvine Road	57.3	57.5	0.2	+3.0	No
Waterman Road	South of Bond Road	59.2	59.3	0.1	+3.0	No

Source: Saxelby Acoustics, LLC, 2025.

Table 4.9-14
Predicted Cumulative Plus Project Traffic Noise Levels

Roadway	Segment	Predicted Exterior Noise Level (dBA L_{dn}) at Closest Sensitive Receptor			Threshold of Significance	Exceeds Threshold?
		Cumulative No Project	Cumulative + Project	Change		
Bond Road	West of Waterman Road	61.3	61.4	0.1	+3.0	No
Bradshaw Road	North of Sheldon Road	62.4	62.4	0.0	+3.0	No
Sheldon Road	Elk Grove Florin Road to Waterman Road	58.9	59.1	0.2	+5.0	No
Sheldon Road	Waterman Road to Bradshaw Road	59.5	59.9	0.4	+5.0	No
Sheldon Road	West of Elk Grove Florin Road	60.0	60.1	0.1	+3.0	No
Waterman Road	Calvine Road to Sheldon Road	53.9	54.1	0.2	+5.0	No
Waterman Road	Sheldon Road to Bond Road	59.1	59.2	0.1	+5.0	No
Waterman Road	North of Calvine Road	61.2	61.3	0.1	+3.0	No
Waterman Road	South of Bond Road	61.5	61.5	0.0	+3.0	No

Source: Saxelby Acoustics, LLC, 2025.

4.10 Public Services and Utilities

4.10 PUBLIC SERVICES AND UTILITIES

4.10.1 INTRODUCTION

The Public Services and Utilities chapter of the EIR summarizes the setting information and identifies potential new demands resulting from the Project on fire and law enforcement protection services, schools, parks, recreation facilities, and other public facilities such as libraries. The chapter also evaluates the sufficiency of water supplies to meet the project's water demand and assesses the adequacy of the wastewater system, solid waste disposal, and gas, electricity, and telecommunication utilities required to serve the project. Potential impacts to public services are identified in the Summer Villas Special Planning Area Project (Project) and would require the development of new facilities or expansion of existing facilities, the construction of which could have adverse physical effects on the environment. Information for the Public Services and Utilities chapter was drawn primarily from a Domestic Water Demand Analysis[1] and Sewer Flow Assessment (SFA)[2] prepared for the Project by Wood Rodgers (see Appendices L and M). Consultation with various public services on the Project was also conducted. Additional information was drawn from the City of Elk Grove General Plan[3] and the associated General Plan EIR.[4]

4.10.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing public services in the City of Elk Grove, including fire and police protection services, schools, parks, and recreation facilities, as well as the existing utilities and service systems in the vicinity of the site, including water supply, wastewater conveyance and treatment, solid waste, and gas, electric, and telecommunication infrastructure.

Fire Protection Services

Fire protection services in the City are provided by the Cosumnes Community Services District (CCSD), which provides fire suppression, emergency medical services, technical rescue, and arson and explosion investigation services. According to the City's General Plan EIR, the CCSD's jurisdiction extends across a 157-square-mile area covering the City of Elk Grove, the City of Galt, and a portion of unincorporated southern Sacramento County. The CCSD has 180 full-time personnel in its Operations Division[5] and operates out of eight fire stations with eight advanced life support (ALS) engine companies, one aerial ladder truck company, six rescue ambulance units, and one command vehicle, as well as other specialized apparatus for specialized emergency circumstances.

The CCSD's fire stations are located throughout the cities of Galt and Elk Grove. The closest fire station to the site is Station 73, located at 9607 Bond Road approximately 0.62-mile southeast of the site. According to the City's General Plan EIR, Station 73 provides both fire protection and emergency medical services, and would provide such services to the site. Fire and emergency

1 Wood Rodgers. *Summer Villas at Waterman Road Domestic Water Demand Analysis.* February 20, 2025.
2 Wood Rodgers. *Summer Villas Sewer Flow Assessment*. March 19, 2025.
3 City of Elk Grove. *General Plan.* Adopted February 2019. Amended December 13, 2023.
4 City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* February 2019.
5 Cosumnes Community Services District. *Cosumnes Fire Department Organization Chart.* May 1, 2025.

services in Sacramento County have developed a Joint Powers Authority (JPA) for a unified dispatch system. Under the JPA, the closest unit available is dispatched to an incident. Fire district boundaries are not an issue when an incident occurs. The CCSD fire district also participates in mutual aid with neighboring agencies and is called on by the California Office of Emergency Services (Cal OES) to assist in larger incident events.

The CCSD has established a response time goal of arriving on scene within six minutes or less 90 percent of the time within the urbanized portions of the City. Within rural areas, the CCSD has adopted a standard response time of 12 minutes or less 90 percent of the time.[6]

Pursuant to Elk Grove Municipal Code (EGMC) Chapter 16.85, all new development projects would be required to pay fire protection development fees to fund additional facilities and equipment. In addition, City of Elk Grove voters approved Measure E on November 8, 2022, a one-cent local sales tax which enacted locally controlled funding.[7] Measure E funds are shared between the City of Elk Grove and CCSD to help address services the community identified as important. CCSD fire protection services are allotted 66.7 percent of the Measure E funds distributed to CCSD.

Law Enforcement Services

The City of Elk Grove Police Department (EGPD) provides law enforcement services to the City. The EGPD provides all law enforcement services in the City, including responding to crime-related events, handling traffic-related issues, and providing community services to residents. In addition, the California Highway Patrol (CHP) provides traffic enforcement and accident investigations along the Interstate 5 (I-5) and State Route (SR) 99 corridors to the east of the site from the station at 6 Massie Court within the City of Sacramento.

The EGPD primarily operates out of facilities located in the City Hall complex at 8380 and 8400 Laguna Palms Way, approximately 2.42 miles west of the site. The service area is split into five regularly patrolled police beats. According to the EGPD's 2024 Annual Report, the EGPD has 325 total staff, 165 of which are sworn officers that responded to 91,094 calls for service in 2024.[8]

Similar to funding for fire protection services, new equipment and facilities necessary to provide additional law enforcement services would be funded by development impact fees consistent with Chapter 16.95 of the EGMC. Such fees would be required to be paid by all proposed development within the City, including the Project, as well as by ongoing payments of property taxes. In addition, Measure E funds, collected to help address services the community identified as important, would contribute funding to police protection services.

Schools

The site is located within the Elk Grove Unified School District (EGUSD), which covers 320 square miles across the entire City of Elk Grove, portions of the cities of Sacramento and Rancho Cordova, and most of southern Sacramento County. According to the City's General Plan EIR, the EGUSD operates 66 schools comprised of 42 elementary schools, nine middle schools, nine

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6 Rey, Lantz, Assistant Fire Chief/Fire Marshal, Fire Department, Cosumnes Community Services District. Personal communication [email] with City of Elk Grove Community Development Department staff. December 19, 2024.

7 Cosumnes Community Services District. *Budget in Brief, Biennial Budget FY 2023-23 & FY 2024-25.* Accessed May 2025.

8 Elk Grove Police Department. *Elk Grove Police Department Annual Report 2024.* Available at: https://arcg.is/1TTC4W0. Accessed May 2025.

high schools, an alternative education school, four continuation schools, and a special education school. According to the EGUSD's online school locator, the site is located in the Pleasant Grove High School region and would be served by Edna Batey Elementary School, Katherine L. Albiani Middle School, and Pleasant Grove High School.[9] Based on the EGUSD's Facilities Master Plan,[10] Katherine L. Albiani Middle School and Pleasant Grove High School are projected to become overcrowded, leading students to potentially be redirected to different middle and high schools in other locations of the City.

EGUSD operations are primarily funded through local property tax revenue 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, based on residential and nonresidential development projects generating additional students. The EGUSD allows the imposition of fees that can be adjusted periodically, consistent with Senate Bill (SB) 50. The EGUSD's currently active developer fees are $0.84 per square foot (sf) for senior residential development.[11] The EGUSD also collects a Mello-Roos tax, with the taxes applied at various stages during project review and development.

Voters within the City of Elk Grove also approved Measure N in November 2024, which authorized a $542 million bond to make improvements to facilities used for elementary, middle, and high school programs throughout the EGUSD, including ancillary and support facilities.[12] Specifically, Measure N funds are used for various school facility improvements, including, but not limited to: improving aging or outdated facilities and infrastructure; enhancing school security and safety; repairing heating, air conditioning, and electrical systems, as well as repairing cracked pavement and playgrounds; constructing classrooms; and equipping classrooms with technology.

Parks and Recreational Facilities

The CCSD provides parks and recreation services to the City through its Parks and Recreation Department, which has a staff of 68 full-time employees. The CCSD plans new parks; owns, operates, and maintains parks and community centers; manages rentals of community centers, picnic sites, and sports fields; and offers recreation programs, including special events, summer camps, teen programs, sports programs, classes, before- and after-school recreation, and aquatic programming. The CCSD manages a total of 104 parks, corridors, and trails, equating to approximately 1,000 acres of open space.[13] The nearest public parks to the site are Veninga Park, located approximately 0.48-mile east of the site within the Elliot Springs Subdivision, and Jordan Family Park, located approximately 0.84-mile north of the site. In addition, the site is located within one mile of an additional, five-acre park currently under construction located within the Elliot Springs Subdivision. The City and CCSD maintain a goal of providing a minimum of five acres of active parkland per 1,000 residents.

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9 Elk Grove Unified School District. *Boundary Information.* Available at: https://www.egusd.net/StudentsFamilies/FormsQuick-Links/Boundary-Information/index.html. Accessed May 2025.

10 Elk Grove Unified School District. *Facilities Master Plan, 2015-2025 Update.* February 2016.

11 Elk Grove Unified School District. *Facilities and Planning.* Available at: https://www.egusd.net/Departments/Facilities-and-Planning/index.html. Accessed May 2025.

12 Elk Grove Unified School District. *Measure N.* Available at: https://www.egusd.net/Departments/Facilities-and-Planning/Measure-N/. Accessed May 2025.

13 Cosumnes Community Services District. *Cosumnes Parks & Recreation.* Available at: https://www.cosumnescsd.gov/1358/Parks-Recreation. Accessed May 2025.

The CCSD includes 13 geographic benefit zones, plus a district-wide benefit zone. Fees are levied on parcels to help fund maintenance, repair, replacement, services, utilities, and capital improvements associated with parks, landscape medians owned by the City, corridors, trails, open space, and recreation facilities. The facilities and benefits are specific to each zone; thus, the rates vary based on the number and types of facilities present in that zone and the costs required to maintain them. The site is located in Benefit Zone 8 – Laguna Ridge/Other Rural.

Other Public Facilities

The nearest library to the site is the Elk Grove Library, a branch of the Sacramento Public Library system. The Elk Grove Library is located at 8900 Elk Grove Boulevard, approximately 1.82 miles southwest of the site, but is planned to relocate to 9260 Waterman Road, which is located approximately 1.53 miles south of the site. Funding for library operations primarily comes from County and City property taxes.

Water Supply and Delivery Infrastructure

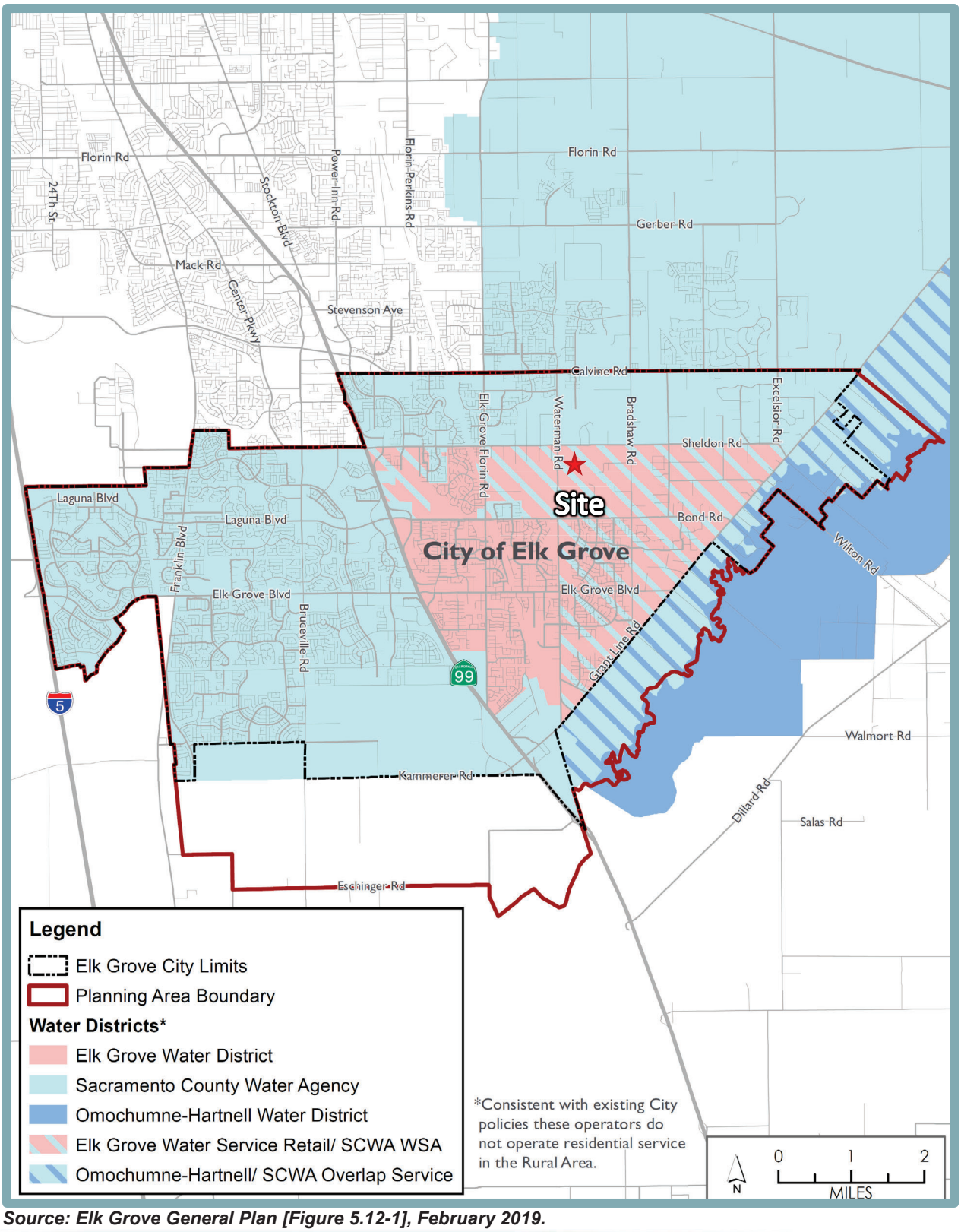
Water supply for the City is provided by three separate providers: Sacramento County Water Agency (SCWA); Elk Grove Water District (EGWD), which is a department of the Florin Resource Conservation District; and Omochumne-Hartnell Water District (OHWD). The OHWD serves only agricultural users; because neither the site nor the Project are agricultural in nature, OHWD is not discussed further herein. The SCWA is both a retail urban water supplier and a wholesale water supplier, while the EGWD serves an area of approximately 13 square miles within the City limits east of SR 99. The EGWD provides water through a series of groundwater wells and a treatment and storage facility on Railroad Street. In addition, EGWD also has a long-term agreement with SCWA to purchase additional water supplies.

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, while Service Area 2 is served by groundwater and surface water purchased from the SCWA. The site is located within Service Area 2 of the EGWD, which includes approximately 4,100 residential accounts and approximately 220 acres of nonresidential uses (see Figure 4.10-1). Because the SCWA delivers water to customers in EGWD Service Area 2 from SCWA's production wells, water would be delivered to the site by both EGWD and SCWA.

The SCWA manages water supplies in Sacramento County through a combination of surface water, groundwater, recycled water, and purchased water. The SCWA service area is divided into eight systems, the largest of which are the Mather Sunrise and Laguna Vineyard systems. The City of Elk Grove and the site are located within the Laguna Vineyard system.

In addition, SCWA maintains eight water and drainage zones. Zone 40 comprises the Mather Sunrise and Laguna Vineyard potable water system service areas, and is divided into three service areas (north, central, and south). The Laguna Vineyard water system is located within the central service area (CSA) and the south service area (SSA). The CSA comprises much of the City east of Waterman Road, including the site, and is supplied by both groundwater and surface water from the Vineyard Surface Water Treatment Plant (SWTP).

Figure 4.10-1
Water Service Boundaries



Source: Elk Grove General Plan [Figure 5.12-1], February 2019.

*Figure not OCR compatible.

Water Supply and Demand

According to the EGWD Urban Water Management Plan (UWMP), Service Area 2 is supplied wholesale treated water from the SCWA through a wholesale Master Water Agreement.[14] The contract has a 50-year term with an automatic renewal clause for another 50 years unless one party provides a five-year notice of intent not to extend. Table 4.10-1 provides the last five years of historical supply delivered to Service Area 2 from SCWA under the agreement.

Table 4.10-1
Service Area 2 Historical Water Supply Deliveries from SCWA

Year	SCWA Water (acre-feet)
2016	2,107
2017	2,262
2018	2,327
2019	2,304
2020	2,572

Source: EGWD, 2020 Urban Water Management Plan [Table 3-2], June 2021.

New development within Service Area 2 is required to pay the SCWA Zone 40 Development Fee for new building permits, which supports conjunctive use in the Central Basin. EGWD does not have a water right besides the contract right to the water delivered through SCWA's system. Nevertheless, according to the EGWD UWMP, SCWA's conjunctive use water supply is considered a permanent and reliable source.

Water Supply Reliability

During previous single- and multiple-dry years, EGWD and SCWA have maintained the ability to supply 100 percent of average/normal water year supply to Service Area 2. Under existing agreements, EGWD anticipates that the district will continue to have sufficient water supplies through projected buildout conditions, including new development within Service Area 2, during multiple-dry-year conditions.[15]

Although EGWD anticipates meeting all water demand under single- and multiple-dry years, EGWD maintains a Water Shortage Contingency Plan within Chapter 6 of the UWMP. Should water supplies be insufficient to meet average demand, EGWD has the authority to implement customer and district actions to eliminate gaps between supply and demand ranging from 10 percent to over 50 percent.

Water Delivery Infrastructure

Within the EGWD boundaries, EGWD typically owns and operates the distribution main network (12-inch diameter lines or smaller), while SCWA typically handles the maintenance and operation of the transmission main network (greater than 12-inch diameters).

Water conveyance infrastructure within the area includes an 18-inch transmission main in Waterman Road at the Elliott Springs Drive intersection (located at the southwest corner of the site) and another 18-inch transmission main stub in Waterman Road near Calvine Road, approximately one mile north of the site. The existing lines and new proposed water line connections are discussed in Impact 4.10-6 of this chapter.

[14] Elk Grove Water District. *2020 Urban Water Management Plan.* Adopted June 15, 2021.
[15] Elk Grove Water District. *2020 Urban Water Management Plan* [pg. 5-1]. Adopted June 15, 2021.

Wastewater Conveyance and Treatment

Wastewater treatment for the project area is currently provided by the Sacramento Area Sewer District (SacSewer). Prior to December 26, 2023, SacSewer was represented by two independent special districts, a previous iteration of SacSewer and the Sacramento Regional County Sanitation District (Regional San). However, Sacramento Local Agency Formation Commission (LAFCo) authorized a reorganization of the districts, dissolving the former SacSewer, annexing the district into Regional San, and subsequently naming the wastewater special district "Sacramento Area Sewer District."

The site is located within the BR Bond Sheldon Trunk Shed as reflected in Figure 6-1 of the SacSewer 2020 System Capacity Plan. Therefore, the sections below discuss the sewer services currently provided by Regional San and SacSewer within the area.

Wastewater Conveyance

SacSewer provides wastewater collection and conveyance services in the City, as well as the urbanized areas of unincorporated Sacramento County, the cities of Citrus Heights and Rancho Cordova, and within a portion of the cities of Sacramento and Folsom. As of January 2024, SacSewer is actively maintaining a network of 106 pump stations, approximately 3,155 miles of gravity main lines, and approximately 86 miles of pressurized force main pipes.[16]

SacSewer trunk sewer pipes transport the collected wastewater flows to the Regional San interceptor system. According to the City's General Plan EIR, an existing City trunk line extends southeast from the Sacramento Regional Wastewater Treatment Plant (SRWTP) to Laguna Boulevard, then parallel to SR 99 along East Stockton Boulevard, extending close to the southern City boundary.

Wastewater Treatment

The SRWTP 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 buffer between the SRWTP and nearby residential areas. Wastewater is treated by accelerated physical and natural biological processes before being discharged to the Sacramento River.

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 in the SacSewer service area.[17] The Master Plan uses SACOG population projections multiplied by per capita flow and load values to determine future facility needs. The SRWTP's capacity is currently limited to an equivalent 207 million gallons per day (mgd) average dry weather flow (ADWF) and the SRWTP has been planned to accommodate up to 350 mgd ADWF. In addition, SacSewer has prepared a long-range master plan for the large-diameter interceptors that transport wastewater to the SRWTP, including interceptor upgrades/expansions to accommodate anticipated growth through 2035.

Solid Waste

Republic Services, formerly known as Allied Waste, provides single-unit residential solid waste services in the City under an exclusive franchise agreement. Solid waste generated by

[16] Sacramento Area Sewer District. *Sewer System Management Plan* [Table 1-2]. June 27, 2024.
[17] Sacramento Area Sewer District. *System Capacity Plan 2020 Update.* December 2020.

commercial and multi-unit residential developments is served by registered commercial haulers or County-authorized recyclers.

According to the City's General Plan EIR (Chapter 5.12.3), solid waste generated in the City is taken to a variety of landfills. Table 4.10-2 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 50 percent remaining capacity.

Table 4.10-2
Disposal Facilities and Remaining Capacities (cubic yards)

Facility	Maximum Capacity	Remaining Estimated Capacity	Estimated Closure Year
Altamont Landfill and Resource Recovery	124,400,000	65,400,000 (52 percent)	2070
Recology Hay Road	37,000,000	30,433,000 (82 percent)	2077
Bakersfield Metropolitan (Bena) SLF	53,000,000	32,808,260 (62 percent)	2046
Foothill Sanitary Landfill	138,000,000	125,000,000 (90 percent)	2082
Forward Landfill, Inc.	59,160,000	24,720,669 (42 percent)	2036
Keller Canyon Landfill	75,018,280	63,408,410 (84 percent)	2050
L and D Landfill Co.	20,500,000	3,115,900 (15 percent)	2030
North County Landfill	41,200,000	35,400,000 (86 percent)	2048
Potrero Hills Landfill	83,100,000	13,872,000 (16 percent)	2048
Sacramento County Landfill	117,400,000	102,300,000 (87 percent)	2080

Source: CalRecycle, SWIS Facility/Site Search. Accessed April 2025.

Gas, Electric, and Telecommunication Infrastructure

The Sacramento Municipal Utility District (SMUD) would provide electric services to the site. SMUD is a community-owned electric utility which generates, transmits, and distributes electricity to a 900-square-mile territory that includes Sacramento County, Yolo County, and parts of Placer County. SMUD is one of the 10 largest publicly owned utilities in the U.S.

Natural gas services in the project area are provided by PG&E. PG&E is one of the largest providers of electricity and natural gas throughout Sacramento County. PG&E is a San Francisco-based private company, publicly regulated by the California Public Utilities Commission and provides electricity and natural gas to the majority of Northern California. PG&E has ample resources to meet a wide range of projected growth; however, when the time comes, additional improvements to the facilities may be required to meet future growth demands. Existing electrical and telecommunication distribution lines are located along Waterman Road in the project vicinity. Additionally, easements containing transmission towers, utility poles, and overhead power transmission lines are generally located within the western half of the site, which would remain as is with implementation of the Project.

4.10.3 REGULATORY CONTEXT

The following discussion contains a summary of regulatory controls pertaining to public services and utilities, including State and local laws and ordinances.

Federal Regulations

The federal environmental laws and policies relevant to public services and utilities are primarily related to water quality, which is addressed in Chapter 4.7, Hydrology and Water Quality, of this EIR.

State Regulations

The following are applicable State environmental laws and policies related to public services and utilities.

California Fire Code

The California Fire Code (CFC) contains regulations related to construction, maintenance, and use of buildings. Topics addressed in the CFC 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 CFC 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, including regulations for building standards (as also set forth in the California Building Standards Code [CBSC]), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

Proposition 1A/Senate Bill 50

Proposition 1A/SB 50 (Chapter 407, Statutes of 1998) is a school construction measure primarily intended for modernization and rehabilitation of older school facilities and the construction of new school facilities. Proposition 1A/SB 50 implemented significant fee reforms by amending the laws governing developer fees and school mitigation, as follows:

- Established the base (statutory) amount (indexed for inflation) of allowable developer fees at $1.93 per sf for residential construction and $0.31 per sf for commercial construction.
- Prohibited school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess of or in addition to those provided in the statute.

Proposition 1A/SB 50 also prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […] involving […] the planning, use, or development of real property" (Government Code Section 65996[b]). Additionally, a local agency cannot require participation in a Mello-Roos for school facilities; however, the statutory fee is reduced by the amount of any voluntary participation in a Mello-Roos. Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation." The law identifies certain circumstances under which the statutory fee can be exceeded, including preparation and adoption of a "needs analysis," eligibility for State funding, and satisfaction of two of four requirements (post-January 1, 2000) identified in the law including: year-round enrollment, general obligation bond measure on the ballot over the last four years that received 50 percent plus one of the votes cast, 20 percent of the classes in portable classrooms, or specified outstanding debt. Assuming a district qualifies for exceeding the statutory fee, the law establishes ultimate fee caps of 50 percent of costs where

the State makes a 50 percent match, or 100 percent of costs where the State match is unavailable. District certification of payment of the applicable fee is required before the City can issue the building permit.

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fees are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

California Green Building Standards Code

The 2022 California Green Building Standards Code, otherwise known as the CALGreen Code (California Code of Regulations [CCR] Title 24, Part 11), is a portion of the California Building Standards Code (CBSC), which became effective on January 1, 2023. The CBSC is adopted every three years by the Building Standards Commission (BSC).

The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the current CALGreen Code include, but are not limited to, the following measures:

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water-efficient landscaping ordinance or the Department of Water Resource's (DWR) Model Water Efficient Landscape Ordinance (MWELO);
- 65 percent of construction and demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of electric vehicle (EV) charging stations or designated spaces capable of supporting future charging stations; and
- Low-pollutant-emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

The CALGreen standards also include voluntary efficiency measures that are provided at two tiers and implemented at the discretion of local agencies and applicants. According to Section A4.602 of Appendix A4 of the CALGreen Code, CALGreen's Tier 1 standards call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 80 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement

reduction, and cool/solar-reflective roofs. The City of Elk Grove has adopted Tier 1 of the CALGreen standards.

Senate Bill 7

On September 25, 2016, SB 7 was signed into law. The purpose of SB 7 is to further the State's water conservation efforts by requiring that new apartment buildings constructed after January 1, 2018, include submeters for every rental unit. Specifically, the bill authorizes the Department of Housing and Community Development to develop, and propose for adoption, building standards that require the installation of water meters or submeters in multi-family residential buildings. In addition, if submeters are used to charge tenants separately for water use, SB 7 imposes requirements on landlords related to sub-metered water service to individual dwelling units.

California Water Code

The California Water Code requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted and that planned water supplies are adequate to meet both existing demands and the demands of planned development.

Water Code Sections 10910 through 10915 (inclusive), sometimes referred to as SB 610, require land use lead agencies: 1) to identify the responsible public water purveyor for a proposed development project, and 2) to request from the responsible purveyor a Water Supply Assessment (WSA). The purposes of the WSA are (a) to describe the sufficiency of the purveyors' water supplies to satisfy the water demands of the proposed development project, while still meeting the current and projected water demands of customers, and (b) in the absence of a currently sufficient supply to describe the purveyor's plans for acquiring additional water. Water Code Sections 10910 through 10915 delineate the specific information that must be included in the WSA.

As stated in CEQA Guidelines Section 15155, which reflects SB 610 requirements, any development with water demand exceeding the equivalent demand associated with 500 dwelling units is considered a "water-demand project" and is required to prepare a WSA. Government Code section 66473.7(a)(1), created through SB 221, requires an affirmative written verification of sufficient water supply for subdivisions of more than 500 units. SB 221 is designed as a "fail-safe" mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs early in the planning process. The Project could include a maximum of 499 age-restricted single-unit residences. Therefore, a WSA is not required for the Project.

California Integrated Waste Management Act – Assembly Bill 939

To minimize the amount of solid waste that must be disposed of by transformation (i.e., recycling) and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated within the respective county plans, which must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to $10,000-per-day fines.

In 2007, SB 1016 amended portions of AB 939, which allows the California Integrated Waste Management Board (CIWMB) to use per capita disposal as an indicator in evaluating compliance

with the requirements of AB 939. Jurisdictions track and report their per capita disposal rates to CalRecycle.

Assembly Bill 1327

AB 1327, the Solid Waste Reuse and Recycling Access Act of 1991, requires jurisdictions to adopt ordinances requiring development projects to provide adequate storage area for collection and removal of recyclable materials. The City of Elk Grove has adopted a solid waste management ordinance under Title 30 of the EGMC.

Assembly Bill 1881

AB 1881, the Water Conservation in Landscaping Act of 2006, required the DWR to update the MWELO. AB 1881 also required local agencies to adopt the updated model ordinance or an equivalent ordinance by January 1, 2010. If local jurisdictions failed to adopt the updated model ordinance or an equivalent by January 1, 2010, the DWR's updated model ordinance would automatically be adopted by statute. The City has adopted the MWELO under Section 14.10.010(B) of the EGMC.

Senate Bill 1016

Enacted in 2007, SB 1016 amended portions of the California Integrated Waste Management Act, allowing the CIWMB to use per capita disposal as an indicator in evaluating compliance with the requirements of AB 939. Jurisdictions track and report their per capita disposal rates to CalRecycle.

Senate Bill 1383

SB 1383 (2016) directed the California Air Resources Board (CARB) to approve and start implementing a Short-Lived Climate Pollutant (SLCP) strategy to reduce statewide emissions of SLCPs in 2018. Because methane is a SLCP produced from the decomposition of organic waste in landfills, the bill established targets to achieve a statewide 50-percent reduction in the 2014 organic waste disposal level by 2022 and to achieve a 75 percent reduction in the 2014 organic waste disposal level by 2025.

Where a local jurisdiction has not adopted a more stringent construction and demolition (C&D) ordinance, CBSC (Title 24) requires construction activities to implement Sections 4.408 and 5.408 of the CALGreen Code. Verification of the diversion of 65 percent of the C&D waste is required as part of the building permit process.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610 – 10656). The Act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually shall prepare and adopt an UWMP within a year of becoming an urban water supplier and update the plan at least once every five years. The Act specifies the content that is to be included in an UWMP, and states that urban water suppliers 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. The Act also states that the management of water demands and the efficient use of water shall be actively pursued to protect both the people of the State and their water resources. EGWD prepared and adopted a UWMP in 2020.[18]

[18] Elk Grove Water District. *2020 Urban Water Management Plan.* Adopted June 15, 2021.

Local Regulations

The following are applicable local regulations related to the Project.

City of Elk Grove General Plan

The relevant goals and policies from the City of Elk Grove General Plan related to public services and utilities are presented below.

Goal PT-1	Plentiful Parks and Open Spaces that are Safe, Clean, and High Quality	
	Policy PT-1-1	Work in conjunction with the CCSD to provide parks and recreation services for Elk Grove residents in accordance with the Parks and Recreation Master Plan, the Park Design Principles, and the Bicycle, Pedestrian, and Trails Master Plan and any successor policies or regulations in these or any other documents.
	Policy PT-1-3	Require the provision of park land at a minimum of 5 acres per 1,000 residents, consistent with the Quimby Act.
	Policy PT-1-6	Work with the CCSD to provide designated park and open space areas in growth areas, and require developers to incorporate open space where appropriate as a condition of project approval.
	Policy PT-1-10	Design projects adjacent to open space areas in a manner that protects the integrity and function of the open space area.
	Policy PT-1-11	In land uses adjacent to natural open space areas, provide on-site landscaping as a transition to natural habitats to the extent feasible.
	Policy PT-1-12	Where feasible, provide pedestrian, bicycle, and equestrian trails in open space areas, with an emphasis on trail connections to area-wide systems.
	Policy PT-1-13	Locate streets and other public infrastructure improvements so as to minimize intrusion on open space areas, particularly wetlands.
Goal PT-2	A Connected Parks and Trails System	
	Policy PT-2-5	Increase and improve access points and connections to open space areas from local and regional trails.
Goal NR-3	A Clean and Adequate Water Supply	

	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.
	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.
	Policy NR-3-9	Reduce the amount of water used by residential and nonresidential uses by requiring compliance with adopted water conservation measures.
	Policy NR-3-10	Promote the use of greywater systems and recycled water for irrigation purposes.
	Policy NR-3-13	Advocate for native and/or drought-tolerant landscaping in public and private projects.
Goal ER-6	An Adaptable and Resilient Community	
	Policy ER-6-7	Enforce the City's water-efficient landscape ordinance that is as strict as or stricter than the State Water Resources Control Board regulations affecting local water agencies and ensure future state updates are incorporated in some form to the City's ordinance. Provide opportunity for and encourage public reporting of violations.
Goal SAF-1	A Safe Community	
	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-1-6	Require adequate emergency access for new development projects.
	Goal INF-1	An Efficient Water Delivery and Storage System
	Policy INF-1-1	Water supply and delivery systems shall be available in time to meet the demand created by new development.
	Policy INF-1-2	Require that water flow and pressure be provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.

	Policy INF-1-3	Protect the quality and quantity of groundwater resources, including those which serve households and businesses which rely on private wells. The City shall support and participate in local efforts to implement the State's Sustainable Groundwater Management Act.
Goal INF-2	An Efficient Wastewater Collection and Treatment System	
	Policy INF-2-1	Sewage conveyance and treatment capacity shall be available in time to meet the demand created by new development.
Goal CIF-1	Minimal Solid Waste Generation	
	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.
Goal CIF-2	Coordinated Utility Infrastructure and Improvements	
	Policy CIF-2-2	Require that new utility infrastructure for electrical, telecommunication, natural gas and other services avoid sensitive resources, be located so as to not be visually obtrusive, and, if possible, be located within roadway rights-of-way or existing utility easements.
	Policy CIF-2-3	To minimize damage to roadways and reduce inconvenience to residents and businesses, the City shall seek to coordinate roadway utility efforts so that they are installed in a single operation whenever possible. Multiple installations, in which separate utilities are installed at different times and/or in different trenches, are specifically discouraged.
Goal IFP-1	Infrastructure Improvement Costs Are Secured Prior to Development	
	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.

Goal HTH-1	Healthy Living Options for Residents	
	Policy HTH-1-3	Provide comfortable, safe pedestrian and bicycle connections between residential areas and recreational opportunities.
Goal LU-5	Consistent, High-Quality Urban Design	
	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.

Elk Grove Municipal Code

Sections from the EGMC related to fire protection services and park and recreational facilities are discussed below.

Elk Grove Fire Fee

EGMC Chapter 16.85 establishes a fee program to fund the cost of capital facilities, the need for which is generated by the type and level of development designated in the current General Plan. The fee program applies to both residential and nonresidential development.

California Fire Code

Chapter 17.04 of the EGMC formally adopts the CFC as adopted by the State Building Standards Commission and codified in Title 24, Part 9 of the CCR, except as specifically repealed or amended by the sections therein. Adoption of the CFC is intended to provide minimum requirements and standards for newly constructed, altered, repaired, relocated, replaced, and maintained buildings within the City.

Parks and Recreation Land

EGMC Section 22.28.020(A) requires that, as a condition of approval of a tentative subdivision or tentative parcel map, a portion of such land must be dedicated for park or recreational purposes, a fee paid in lieu thereof (consistent with EGMC Section 22.28.040), or a combination of both. Consistent with Section 22.28.030 of the EGMC, the portion to be dedicated must be sufficient to provide at least five acres of parkland per 1,000 residents. The foregoing standard is also consistent with General Plan Policy PT-1-3.

For development projects that do not include a subdivision or parcel map, EGMC Chapter 16.80 requires that other types of new residential development also provide an in lieu fee for parkland at a rate of five acres for every 1,000 residents.

Water Efficient Landscape Ordinance

Chapter 14.10 of the EGMC incorporates water efficiency standards equivalent to or greater than the State MWELO. In addition, the chapter promotes landscaping practices that integrate the conservation and efficient use of water; establishes provisions for best water management practices and water waste prevention for existing landscapes; and sets a maximum applied water allowance.

Water use efficiency in the WELO is to be achieved through the use of drought tolerant plantings, and proper landscaping, as well as specific requirements for irrigation systems and grading

design. The specific requirements for water use efficiency in landscaping would be confirmed during review of a water efficient landscape worksheet, which would present irrigation efficiency, recycled water, graywater systems, stormwater management and rainwater retention, and water budget calculations.

4.10.4 IMPACTS AND MITIGATION MEASURES

The section below describes the standards of significance and methodology used to analyze and determine the Project's potential impacts related to public services and utilities. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact related to public services and utilities would occur if the Project would result in any of the following:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 protection;
    - Police protection;
    - Schools;
    - Parks; or
    - 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;
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;
- Require or result in the relocation or construction of new or expanded water, wastewater conveyance, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have insufficient 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 which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.

Impacts related to stormwater drainage facilities are addressed in Chapter 4.7, Hydrology and Water Quality, of this EIR.

Method of Analysis

To determine the potential for the project to result in substantial adverse impacts associated with the provision of new or altered government facilities, relevant public services and utilities planning

documents were reviewed, including, but not limited to, the City's General Plan and associated General Plan EIR, the EGWD 2020 UWMP, and direct communication with service providers. In addition, a Domestic Water Demand Analysis[19] (see Appendix L) and an SFA[20] (see Appendix M) were prepared to assess project-specific impacts related to the proposed water supply and sewer services that would be provided to the project. The methods of analysis used in the SFA and Water Demand Analysis are described in further detail below.

Domestic Water Demand Analysis

The SCWA transmission main network is based upon the Zone 40 Water System Infrastructure Plan Update (2016 SCWA Plan).[21] Water demands for the proposed system are based on the acreage of each land use multiplied by the appropriate water demand factor. The applied water demand factors are based on the same factors from the 2016 SCWA Plan and are summarized in Table 4.10-3 below. As shown in the table, the 2016 SCWA Plan identifies the entire site as Rural Estate.

Table 4.10-3
Water Demand Factors

Land Use	Gross Unit Water Demand Factor (AFY)	2016 SCWA Plan	
		Area (Acres)	Water Demand (AFY)
Rural Estate	1.37	111	152
Single Family	2.13		
Multi-Family – Low Density	2.44		
Multi-Family – High Density	3.33		
Commercial	2.02		
Industrial	2.02		
Public	0.81		
Public Recreation	2.80		
Mixed Land Use	2.15		
Right of Way	0.18		
Self Suppt./Supp. by Others			
Non-Irrigated	--		
Industrial – Unused	--		
Agricultural	--		
Total Area and Demand		**111**	**152**

Source: Wood Rodgers, February 2025.

Sewer Flow Analysis

Because the site is located within the SacSewer BR Bond Sheldon Trunk Shed, sewer flows were modeled to properly size existing and proposed sewer facilities within the sewer shed. The flow models include estimated flows from the site and are accounted for at the SRWTP. Proposed sewer flows associated with the Project are detailed and compared to the SacSewer model flows as follows. SacSewer uses Peak Wet Weather Flow (PWWF) to size gravity collection systems. The following equations are used by SacSewer to determine design flows:

- PWWF (mgd) = (ADWF x peaking factor)

[19] Wood Rodgers. *Summer Villas at Waterman Road Domestic Water Demand Analysis.* February 20, 2025.
[20] Wood Rodgers. *Summer Villas Sewer Flow Assessment*. March 19, 2025.
[21] Sacramento County Water Agency. *Zone 40 Water System Infrastructure Plan Update.* September 2016.

- ADWF (mgd) = (310 gallons per day [gpd] / equivalent single-family dwelling [ESD]) x (number of ESDs / acre) x (number of acres) / 1,000,000
- Peaking factor = 3.5-1.8 x $ADWF^{0.05}$, where the ADWF is in mgd, and a minimum value of the peaking factor is 1.2
- Inflow and infiltration (mgd) = 1,600 gpd/acre x (number of acres) / 1,000,000

ADWFs are calculated as the largest of the following methods: six ESDs per acre; the number of units for a project; or, if the number of units is unknown, the most recent zoning. The SacSewer 2020 System Capacity Plan estimates flow for this area based on six ESDs per acre. As indicated in the equations above, the ADWF was also based upon the ESD units and a design domestic flow factor of 310 gpd per ESD.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the Project in comparison with the standards of significance identified above.

4.10-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. Based on the analysis below, the impact is *less than significant*.

Although implementation of the Project would increase the amount of building space within the site as a reasonable consequence of the Summer Villas Special Planning Area (SPA), all structures included in the Project would be constructed consistent with the CBSC and CFC. In compliance with the CBC (specifically Section 903.2.1.3, Group A-3), the design of the residences would include the installation and use of automatic fire sprinklers, and fire alarm systems would be incorporated pursuant to CFC requirements. Such features would reduce the potential for fires to spread within the proposed structures, which would reduce the demand for fire protection services from the site.

Fire protection services for the site would be provided by CCSD from Station 73, located at 9607 Bond Road, following annexation into Community Facilities District (CFD) 1 for fire protection services. Station 73 is located approximately 0.62-mile southeast of the site. Although implementation of the Project would increase the number of structures protected by local fire protection services, CCSD has confirmed implementation of required fire protection measures and payment of required fees would ensure the Project's potential impacts on fire protection services would be less than significant.[22]

The site is located within the service area of Station 73, which is currently unable to meet the desired response times in the primary response area as established by

[22] Rey, Lantz, Assistant Fire Chief/Fire Marshal, Fire Department, Cosumnes Community Services District. Personal communication [email] with Elk Grove Community Development Department staff. December 19, 2024.

CCSD policy. However, based on the proximity of the site to Station 73, and the payment of fire impact fees to offset the increased demand for public services, new fire protection service facilities would not be required as a result of the Project.[23]

In addition, as enforced by EGMC Chapter 16.95, the project applicant would be required to pay a Fire Fee prior to issuance of building permits, which is a multi-zonal fee program used to fund fire facilities and equipment.[24] City of Elk Grove voters also approved Measure E on November 8, 2022, a one-cent local sales tax which enacted locally controlled funding.[25] Portions of the Measure E funds are apportioned to fund fire protection service facilities. As such, the Project would provide funds at the initial construction phase, as well as during operation through sales taxes paid by future residents. Therefore, payment of the City's property taxes and development fees, as well as sales taxes paid by future residents, would ensure the Project would further reduce any potential impacts related to fire protection facilities.

Based on the above, the Project would not result in a need for new, or improvements to existing, fire protection facilities, construction of which could cause significant environmental impacts. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.10-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for law enforcement services. Based on the analysis below, the impact is *less than significant*.

The Project is located within the jurisdiction of and would be provided services by the EGPD following annexation into CFD 2003-2. As previously described, the EGPD primarily operates out of facilities located in the City Hall complex at 8380 and 8400 Laguna Palms Way, approximately 2.42 miles west of the site.

The threshold for this impact, as derived from Appendix G of the CEQA Guidelines, is related to whether the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered law enforcement facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios or performance objectives. The EGPD has indicated that new or physically altered law enforcement facilities would not be needed to adequately serve the Project.[26]

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23 Rey, Lantz, Assistant Fire Chief/Fire Marshal, Fire Department, Cosumnes Community Services District. Personal communication [email] with Elk Grove Community Development Department staff. December 19, 2024.

24 City of Elk Grove. *2025 Development Related Fees.* January 1, 2025.

25 Cosumnes Community Services District. *Budget in Brief, Biennial Budget FY 2023-23 & FY 2024-25.* Accessed May 2025.

26 Nijjar, Jazvie, Officer, Media and Community Relations Unit, Elk Grove Police Department. Personal communication [email] with City of Elk Grove Community Development Department staff. December 5, 2024.

In addition, as enforced by EGMC Chapter 16.95, the Project Applicant would be required to pay a Capital Facilities Fee to the City prior to issuance of building permits. The Capital Facilities Fee is used to fund a range of facilities, including police facilities, the City's Civic Center, corporation yard, animal shelter, transit, and libraries.[27] Additional funding for law enforcement facilities comes from County and City property taxes, as well as collected Measure E funds. Payment of the City's property taxes, development fees, and local sales taxes would ensure the Project would not result in an adverse physical impact related to new or physically altered law enforcement facilities, the construction of which would result in environmental impacts.

Based on the above, a ***less-than-significant*** impact would occur related to the need for new, or improvements to existing, police protection facilities, construction of which could cause significant environmental impacts.

Mitigation Measure(s)

None required.

4.10-3 Result in substantial adverse physical impacts associated with the provision of new or physically altered school services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or performance objectives. Based on the analysis below, the impact is *less than significant*.

As noted previously, the Project would facilitate the construction of a maximum of 499 single-unit residences within the EGUSD. However, the future on-site residences would be age-restricted homes aimed at housing senior citizens. Based on communications with EGUSD representatives, EGUSD student generation rates would not apply because new students are not anticipated to comprise the population of the Project.[28] Without an increase in student population, new or altered school facilities would not be required.

According to SB 50, payment of the necessary school impact fees for the Project would be considered full and satisfactory CEQA mitigation. As discussed previously, Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […] involving […] the planning, use, or development of real property" (Government Code 65996[b]). The Project would be required to pay EGUSD impact fees, which are set at $0.84 per sf for senior residential developments.

For the aforementioned reasons, the Project would not result in any reasonably foreseeable substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of

[27] City of Elk Grove. *2025 Development Related Fees.* January 1, 2025.
[28] Bohrer, Christopher, Elk Grove Unified School District Facilities and Planning Department. Personal communication [email] with City of Elk Grove Community Development Department staff. December 6, 2024.

which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or performance objectives for maintenance of schools, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.10-4 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 parks; or result in an increase in 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, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Based on the analysis below, the impact is *less than significant*.

As noted above, the Project would include the construction of a maximum of 499 single-unit residences. As discussed in Chapter 4.8, Land Use and Planning/Population and Housing, of this EIR, and based on the City's 3.09 persons per household rate, the Project could potentially house approximately 1,542 new residents on the site. Such residents could increase demand on existing parks and recreational facilities, potentially requiring the provision of new facilities or expansion of existing facilities or parks.

The City requires dedication of land and/or payment of fees in accordance with State law to ensure funding for the acquisition and development of public recreation facilities. Consistent with City goals and policies, EGMC Chapter 22.28 requires dedication of land for park or recreational purposes, or a fee paid in lieu thereof, or a combination of both, as a condition of approval for a tentative subdivision or tentative parcel map. The land areas required for dedication may be up to an amount equivalent to the land necessary to provide five acres of parkland per 1,000 residents of the proposed subdivision.

The Project would include 19.4 acres of recreational open space, as well as preserving 20.3 acres of open space surrounding Laguna Creek. As discussed further in Chapter 3, Project Description, of this EIR, the recreational open space would include several active and passive recreational amenities. Such recreational amenities would include, but are not limited to, a publicly accessible multi-use trail connection that would run north-south, parallel with Waterman Road, private trails or trail connections, and amenities associated with the proposed recreation center/clubhouse.

Based on the park factor acreage requirements established in EGMC Section 22.28.030, the Project would be required to provide a minimum of 7.71 acres of parkland (0.005 acres/resident x 1,542 estimated residents). The Project does not include any dedicated parkland; thus, payment of in-lieu fees would be required to contribute a fair-share portion of funds for expansion of parkland and recreation facilities required to serve new development in the City. The provided open space acreage and associated trails would also contribute to meeting the demand created by future residents. In addition, EGMC Section 22.28.050 states that the City may grant credit for private open space or local recreation facilities, or both, in SPAs. If the site is located within the CCSD's jurisdiction, such credit determination shall be made in the joint discretion of the City and CCSD, and shall be subtracted from the dedication or fees, or both. Overall, the Project would not be anticipated to substantially increase demand on existing or future parks or recreational facilities in the surrounding area.

Based on the above, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks, the construction of which could cause significant environmental impacts. The Project would additionally not increase the use of existing parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated, or include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.10-5 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or performance objectives for maintenance of other government services. Based on the analysis below, the impact is *less than significant*.

Residents of the Project would have access to the Elk Grove Library, located at 8900 Elk Grove Boulevard, approximately 1.82 miles southwest of the site. The Elk Grove Library is planned to relocate to 9260 Waterman Road, which is located approximately 1.53 miles south of the site.

The City of Elk Grove maintains public facilities, such as community buildings, which could potentially be used by residents of the Project. However, given the size of the proposed development compared to the existing population of the City, any additional demand generated by the Project would be relatively minor and is not likely to result in the need to alter existing facilities or construct new facilities. The Project would also include an on-site private community recreation center/clubhouse

for resident use, which would further reduce potential increases in use of existing or demand for additional recreational facilities.

Furthermore, as enforced by EGMC Chapter 16.95, the project applicant would be required to pay a Capital Facilities Fee to the City prior to issuance of building permits. The Capital Facilities Fee is used to fund a range of facilities, including the City's Civic Center, police facilities, corporation yard, animal shelter, transit, and library facilities.[29] Additional funding for library operations comes from County and City property taxes. Payment of the City's property taxes and development fees would ensure the Project would not result in an adverse physical impact related to new or physically altered library facilities, the construction of which would result in environmental impacts.

Based on the above, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or performance objectives for government services. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.10-6 Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Based on the analysis below, the impact is *less than significant*.

The following sections describe the water conveyance, wastewater conveyance, stormwater drainage, electric power, natural gas, and telecommunications facilities improvements that would be necessary to serve the Project. Potential impacts related to water supply and wastewater treatment capacity are discussed under Impact 4.10-7 and 4.10-8, respectively.

Water Supply Infrastructure

As shown in Figure 4.10-2, the Project would connect to existing 18-inch transmission main at the Waterman Road/Elliott Springs Drive intersection at the southwest corner of the site, as well as to another 18-inch transmission main stub in Waterman Road near Calvine Road, approximately one mile north of the site.

According to SCWA and EGWD, the approximately 8,000-foot gap between the two 18-inch stubs in Waterman Road would need to be connected to provide the necessary looped system to service the Project.

[29] City of Elk Grove. *2025 Development Related Fees.* January 1, 2025.

Figure 4.10-2
Proposed Water Conveyance Infrastructure Improvements

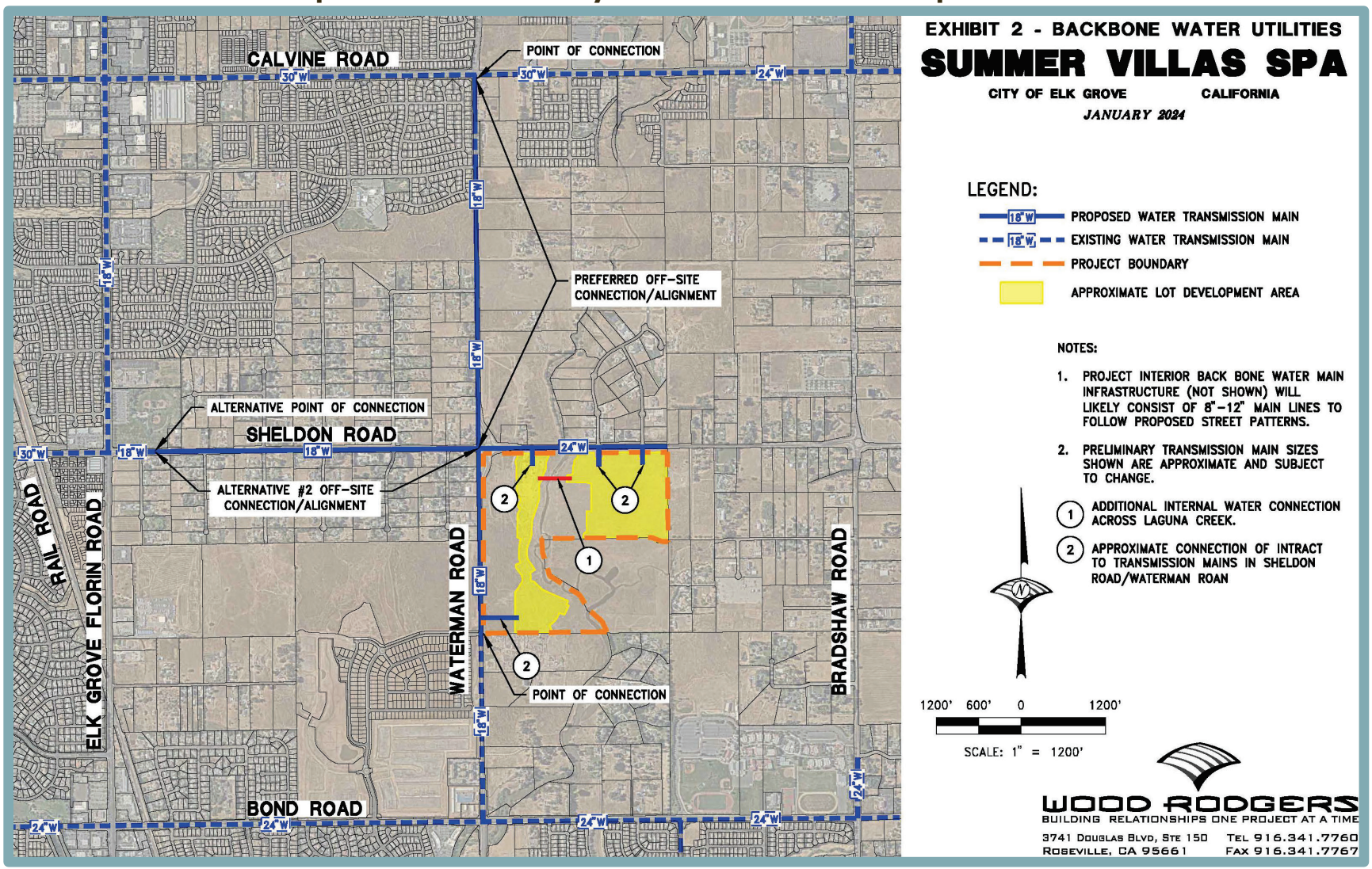


*Figure not OCR compatible.

In addition, a 24-inch transmission main would need to be constructed in Sheldon Road along the north project frontage. The 24-inch transmission main could cross Laguna Creek by either boring and jacking the line under Laguna Creek or attaching the line to the existing Sheldon Road Bridge. To provide a looped system for the east side of the site, approximately 2,800 feet of additional water line crossing Laguna Creek would be provided on-site. Similarly, the crossing would require either a bore and jack installation under the creek or attachment to a bridge structure over the creek.

As an alternative to extending the 18-inch transmission main within Waterman Road, the proposed 24-inch transmission main in Sheldon Road could be extended approximately 5,000 feet west from the Sheldon Road/Waterman Road intersection to connect to an existing 18-inch transmission main near Elk Grove Florin Road. The internal on-site water line network would consist of smaller (eight- to 12-inch) pipes located under the internal street system within a dedicated easement.

Installation of the new water supply infrastructure would occur either in existing road right-of-way (ROW) or in areas proposed for disturbance as part of development of the Project. All potential physical environmental impacts that could result from development of the Project, including the proposed water distribution infrastructure, have been evaluated throughout the technical chapters of this EIR. As discussed throughout this EIR, with implementation of the mitigation measures set forth herein, all physical environmental impacts associated with construction of the off-site improvements would result in less-than-significant impacts. With respect to the off-site water lines, all new water infrastructure would be designed consistent with the applicable standards established by the City's Standard Construction Specifications and, thus, shall be consistent with the standard specifications of the specific water utility company (in the case of the Project, SCWA).[30] As such, all water utility improvements would be required to comply with SCWA standards, as well as applicable State codes. The proposed water conveyance infrastructure would also be designed to meet standard residential fire flow requirements. In addition, the water system would include residential hook-ups and hydrant connections, and each unit connection would provide fire flows necessary for a residential fire sprinkler system in addition to the domestic water service.

Based on the above, the existing water supply infrastructure is sufficiently sized to accommodate the increased demand from the future development of the Summer Villas SPA, and the project would not require the construction of new or expanded water conveyance infrastructure beyond the improvements noted above.

Wastewater Conveyance Infrastructure

As shown in Figure 4.10-3, the Project would construct approximately 6,500 linear feet of off-site four- to six-inch diameter force main in Sheldon Road and Elk Grove Florin Road. Because gravity sewer service is not feasible, sewer service would be provided through an on-site lift station and corresponding off-site force main.

[30] City of Elk Grove. *City of Elk Grove Standard Construction Specifications 2024* [Section 41]. Available at: https://elkgrove.gov/standards-plans-and-specs/standard-construction-specifications-section. Accessed May 2025.

Figure 4.10-3
Proposed Wastewater Conveyance Infrastructure Improvements

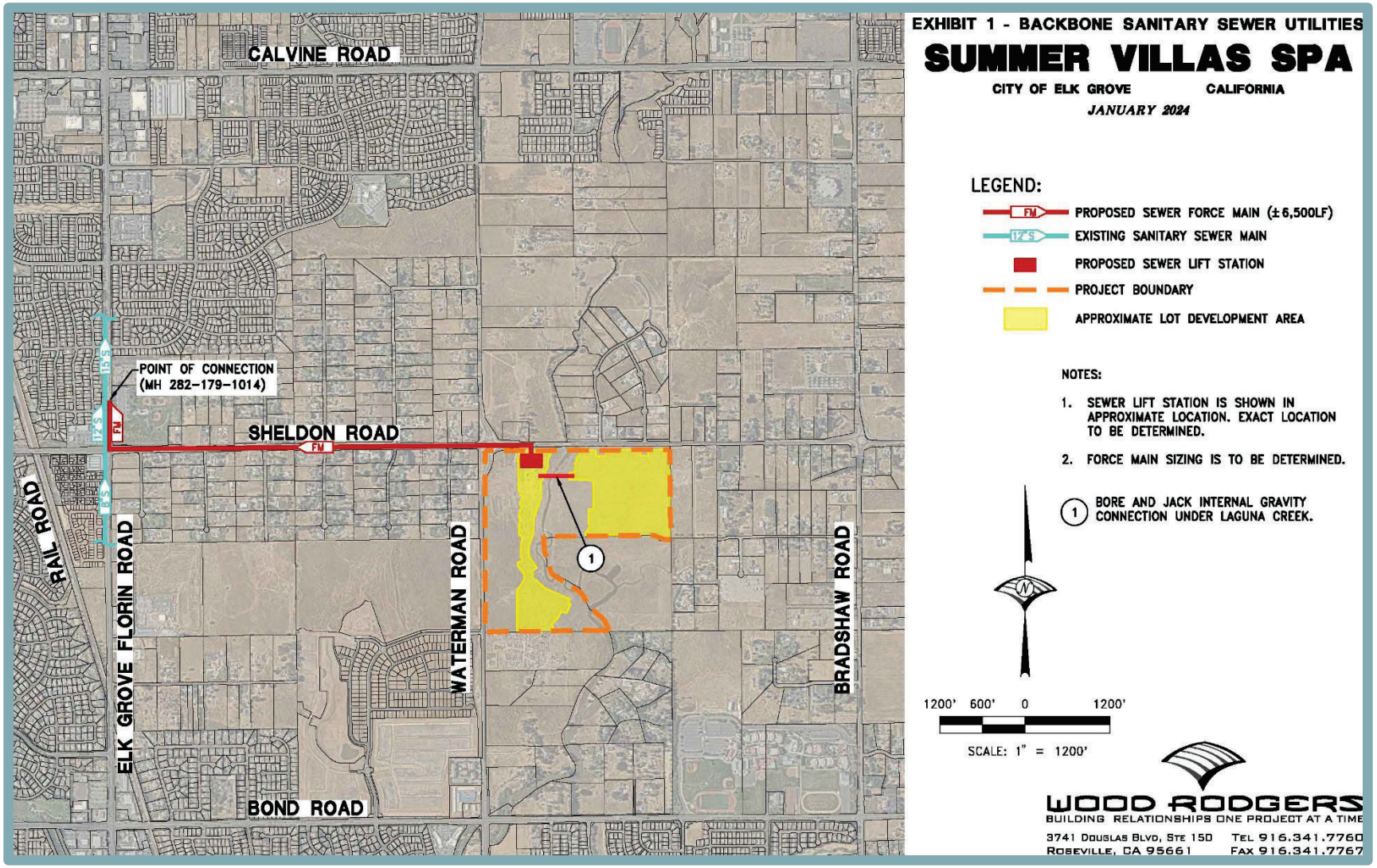


*Figure not OCR compatible.

The off-site sewer force main would discharge to an existing SacSewer gravity sewer network with sufficient residual capacity to support the Project. The proposed on-site lift station would be located in the northwest corner of the site as shown on Figure 4.10-3. The on-site sewer pipeline network would consist of eight-inch sewer lines located under the proposed roadway network within a dedicated easement, and would ultimately outfall to the proposed on-site lift station.

Because the developable areas of the site are bisected by Laguna Creek, the gravity system on the east side of the site would require a bore and jack installation under Laguna Creek to achieve outfall to the lift station. The creek crossing would be located parallel to a proposed bicycle/pedestrian crossing of Laguna Creek.

Installation of the new wastewater conveyance infrastructure would occur either in existing road ROWs or in areas proposed for disturbance as part of development of the Project. All potential physical environmental impacts that could result from development of the Project, including the proposed wastewater conveyance infrastructure, have been evaluated throughout the technical chapters of this EIR. All new wastewater conveyance infrastructure would be designed consistent with the applicable SacSewer standards and specifications, ensuring the new sewer lines are constructed in conformance with proper materials and sizing.[31]

Based on the above, the existing wastewater conveyance infrastructure is sufficiently sized to accommodate the increased demand from the future development of the Summer Villas SPA, and the Project would not require the construction of new or expanded wastewater conveyance infrastructure beyond the improvements noted above.

Electricity, Natural Gas, and Telecommunications Infrastructure

The Project would include new connections to existing electrical, natural gas, and telecommunications infrastructure located in the project vicinity. Existing electrical and telecommunication lines within the project vicinity are currently maintained along Waterman Road, west of the site, and Sheldon Road, north of the site. As required by EGMC Section 23.63.020, the existing overhead utility lines along the site's northern boundary, to which the Project would connect, would be undergrounded. Overhead utilities would be undergrounded to the extent required by General Plan Policy LU-5-3(b) which does not require undergrounding of 69 kilovolts (kv) and above.

As such, overhead lines along western site boundary would not be required to be underground, but overhead lines north of the site would be undergrounded. The Project would preserve the existing easements located in the proposed open space area within the eastern portion of the site. Given the proximity of existing infrastructure to the site, substantial extension of new infrastructure would not be required. Upsizing or upgrading of the existing dry utilities would not be required to serve the project, and a less-than-significant impact would occur.

[31] Sacramento Area Sewer District. *Standards and Specifications.* September 27, 2023.

Conclusion

Based on the above, the Project would not require or result in the relocation or construction of new or expanded water, wastewater conveyance, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. As such, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.10-7 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Based on the analysis below, the impact is *less than significant*.

The Project would include development of a maximum of 499 active adult single-unit residences and various associated improvements. Thus, the Project would result in increased demand for water supplies relative to existing conditions. Water demands for the proposed system are based on the acreage of each land use multiplied by the appropriate water demand factor, which are summarized in Table 4.10-3.

Demand estimates for future development within Zone 40 are based on growth estimates for the region and service area, including buildout estimates of the City's planned growth. The site is currently designated for residential uses and, thus, increased water demand associated with buildout of the site has been accounted for in regional planning efforts. However, the 2016 SCWA Plan identified the entire site as Rural Estate, not the mix of residential and public uses included as part of the Summer Villas SPA. Table 4.10-4 presents the water demand generated from buildout of the site under the Rural Estate uses compared to water demand associated with buildout of the Project's proposed uses. The Domestic Water Demand Analysis calculated the Project's demand using the multi-unit low-density residential land use due to the potential for a conditionally permitted large care facility on-site and to provide a conservative estimate as compared to the single-unit residential land use due to the slightly higher unit water demand factor.

Table 4.10-4
Project Water Demand Comparison

Land Use	Unit Water Demand Factor (AFY)	2016 SCWA Plan		Project	
		Area (Acres)	Water Demand (AFY)	Area (Acres)	Water Demand (AFY)
Rural Estate	1.37	115.9	152		
Single Residential Unit	2.13				
Multi-Residential Unit – Low Density	2.44			71.3	174

(Continues on next page)

Table 4.10-4
Project Water Demand Comparison

Land Use	Unit Water Demand Factor (AFY)	2016 SCWA Plan		Project	
		Area (Acres)	Water Demand (AFY)	Area (Acres)	Water Demand (AFY)
Multi-Residential Unit– High Density	3.33				
Commercial	2.02				
Industrial	2.02				
Public	0.81			19.4	16
Public Recreation	2.80				
Mixed Land Use	2.15				
Right of Way	0.18			4.9	
Self Suppt./Supp. by Others					
Non-Irrigated	--			20.3	0
Industrial – Unused	--				
Agricultural	--				
Total Area and Demand		**111**	**152**	**115.9**	**190**

Note: According to Wood Rodgers, use of the "Public" category for the water demand estimate for the 19.4-acre Waterman Open Space Corridor area is appropriate, as the majority of the area would not be landscaped or irrigated.

Source: Wood Rodgers, February 2025.

As shown in the table, the Project would increase total water demand by approximately 38 AFY as compared to the water demand anticipated by the 2016 SCWA Plan.

The Domestic Water Demand Analysis conducted further calculations to assess whether regional demands are truly increasing by comparing the Project's proposed uses to Sheldon Park Estates Project, an existing rural residential development located immediately north of the site across Sheldon Road. Units 1 through 3 of Sheldon Park Estates Project include 36 rural residential lots occupying approximately 79 acres. The residences are served by individual on site water wells and septic systems. Drainage is provided by roadside ditches and related drainage culverts. The 2016 SCWA Plan's projected water demand for Sheldon Park Estates Project was also based on a rural estate demand factor; however, because Sheldon Park Estates Project is being developed with individual on-site wells, the net demand on the proposed Zone 40 backbone network can be assumed to be zero. Therefore, the Domestic Water Demand Analysis quantified the reduction in demand for Sheldon Park and compared the reduction to the estimated Project increases to determine if a significant regional increase would occur. Such calculations are summarized in Table 4.10-5 below.

Table 4.10-5
Sheldon Park Estates Project Water Demand Comparison

Land Use	Unit Water Demand Factor (AFY)	2016 SCWA Plan		Project	
		Area (Acres)	Water Demand (AFY)	Area (Acres)	Water Demand (AFY)
Rural Estate	1.37	79	108		
Single Family	2.13				
Multi-Family – Low Density	2.44				
Multi-Family – High Density	3.33				
Commercial	2.02				
Industrial	2.02				
Public	0.81				
Public Recreation	2.80				
Mixed Land Use	2.15				
Right of Way	0.18				
Self Suppt./Supp. by Others				79	0
Non-Irrigated	--				
Industrial – Unused	--				
Agricultural	--				
Total Area and Demand		**79**	**108**	**79**	**0**

Source: Wood Rodgers, February 2025.

As depicted by Table 4.10-4 and Table 4.10-5, the total combined project water demand for the Project and Sheldon Park Estate Project units (190 AFY) is significantly less than the 260 AFY assumed by the 2016 SCWA Plan for the area.

According to the Domestic Water Demand Analysis prepared for the Project, previously modeled demands associated with the 2016 SCWA Plan more than compensate for the demand associated with both the Project and the Sheldon Park Estates Project units.

In addition to the water demand associated with the Project, the on-site landscaped areas associated with future development of the Project would require irrigation water. The Project would be subject to Chapter 14.10 of the EGMC, which incorporates water efficiency standards equivalent to or greater than the State MWELO. Requirements for establishing water efficient landscaping generally include the use of compost and mulch, installation of climate adapted plants, restrictions on turf areas, and requirements for irrigation systems. The City's Standard Construction Specifications provide specific recommendations and requirements for new landscaping and for irrigation systems such as water supply, trenching, pipes, testing, and installation.[32] Compliance with the State's MWELO

[32] City of Elk Grove. *City of Elk Grove Standard Construction Specifications 2024* [Section 20]. Available at: https://elkgrove.gov/standards-plans-and-specs/standard-construction-specifications-section. Accessed May 2025.

would be ensured during the Design Review process through submission of a landscaping plan to the City for review and approval, and would ensure that irrigation water consumption is minimized and occurs in compliance with the City's standards.

With respect to on-site landscaping, the future paseo lots would be designated for landscaping and to provide residents access to pedestrian pathways. Enhanced entry landscaping and/or separated sidewalks could also be provided at the entry gates to enhance the pedestrian network within the project area. Any landscaping for residential care facilities would be subject to the landscape development standards set forth by EGMC Section 23.54.040.

It should also be noted that, during previous single- and multiple-dry years, EGWD and SCWA have maintained the ability to supply 100 percent of average/normal water year supply to Service Area 2. Under existing agreements, EGWD anticipates that the district will continue to have sufficient water supplies through projected buildout conditions, including new development within Service Area 2, during multiple-dry-year conditions.[33] As previously discussed, domestic water service within Service Area 2 is supplied by groundwater and surface water purchased from the SCWA.

Although EGWD anticipates meeting all water demand under single- and multiple-dry years, EGWD maintains a Water Shortage Contingency Plan within Chapter 6 of the UWMP. Should water supplies be insufficient to meet average demand, EGWD has the authority to implement customer and district actions to eliminate gaps between supply and demand ranging from 10 percent to over 50 percent.

Conclusion

The Project has a long-term, reliable water supply that will not require any expansion of any existing facilities or new water sources or diversions. Based on the historic pattern by which SCWA, as a wholesaler, has been able to supply EGWD, as a retailer, with the water that EGWD needs in its Service Area 2, sufficient surface water and groundwater supplies would be available to serve the Project during normal, dry, and multiple dry years. As such, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.10-8 Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Based on the analysis below, the impact is *less than significant*.

[33] Elk Grove Water District. *2020 Urban Water Management Plan* [pg. 5-1]. Adopted June 15, 2021.

Wastewater from the site would ultimately be routed to, and treated at, the SRWTP, which is operated by SacSewer and discharges treated effluent to the Sacramento River. The Project is anticipated to result in a maximum of 499 age-restricted single-family residences. Wastewater generation estimates anticipated for the Project were calculated as part of the project-specific SFA using the methodology discussed in the Methods of Analysis section above. Table 4.10-6 below presents a comparison of wastewater flows based on the assumptions in the SacSewer 2020 System Capacity Plan as well as the on-site flows generated by the Project based on six ESDs per acre and 10 ESDs per acre (medium-density residential).

As shown in the table, the total sewer flows for both models (0.55 and 0.51 mgd) are less than the estimated flows generated by the 2020 System Capacity Plan base assumptions (0.68 mgd). Therefore, wastewater generated by the Project could be adequately accommodated by the SRWTP's currently available capacity.

Table 4.10-6
Sewer Flow Comparison

Land Use	Area (acres)[1]	ESDs/ Acre	Total ESDs based on ESD/acre factor	Total ESDs based on Project Lot Count[4]	Total Sewer Flow (mgd)
SacSewer Modeled Flows	156.8	6	941	N/A	0.68
Project[2]	111	6	666	529	0.55
Project[3]	71.7	10	717	529	0.51

1 Where the development area is the total site area minus non-flow generating areas (i.e., the open space lots and Waterman Road ROW).
2 Estimated project sewer flows based on gross developable acreage and 6 ESDs per acre.
3 Estimated project sewer flows based on net developable acreage and 10 ESDs per acre (typical medium-density residential value).
4 Total ESDs based on a maximum residential lot count of 499 units plus a five-acre clubhouse site at 6 ESDs/acres.

Source: Wood Rodgers, March 2025.

Based on the above, the Project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate wastewater treatment capacity to serve the project's projected demand in addition to the provider's existing commitments. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.10-9 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste. Based on the analysis below, the impact is *less than significant*.

The Project would generate solid waste associated with construction activities as well as from future residents of the proposed single-unit residences. Construction debris would be disposed of in accordance with applicable federal, State, and local regulations and standards. Solid waste collection services would be provided by Republic Services and taken to 10 different landfills. Table 4.10-2 shows the aforementioned landfills used by the City, as well as the permitted and remaining capacities of those landfills. As shown therein, the majority of the landfills serving City waste haulers have over 50 percent remaining capacity.

According to the U.S. EPA's report, *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*, residential construction activities generate an average of 4.39 lbs/sf of waste.[34] The Project would include construction of a maximum of 499 age-restricted single-unit residences; however, the total building square footage of the future units is currently unknown. Therefore, for analysis purposes, each single-unit residence was conservatively estimated to include 2,500 sf of building space. As such, the Project could result in a total buildout square footage of 1,247,500 sf, construction of which would produce approximately 5,476,525 lbs (2,738.26 tons) of construction waste (4.39 lbs/sf x 1,247,500 sf).

The construction waste estimate presented above represents a conservative analysis of the maximum potential waste production from construction of the Project. The CALGreen Code requires at least 65 percent diversion of construction waste for projects permitted after January 1, 2017. As such, a minimum of approximately 1,779.87 tons of waste would be diverted away from landfill disposal (i.e., recycled) during construction. Considering the applicable CALGreen Code requirements, Project construction would be anticipated to produce up to 958.39 tons of waste. Construction waste generation would only represent a short-term increase in solid waste generation.

During operation of the Project, the future residents would produce solid waste that would be collected by Republic Services and transferred to a landfill. Operational solid waste generation from the proposed 499 age-restricted single-unit residences has been estimated based on an average waste generation rate for single-family residential development of 10.2 pounds per unit per day.[35] As such, the Project could produce approximately 5,089.80 pounds of solid waste per day. A total of 5,089.80 pounds of solid waste per day would equate to approximately 928.89 tons per year,

[34] U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts.* 2009.

[35] California Department of Resources Recycling and Recovery. *Estimated Solid Waste Generation Rates*. Available at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed May 2025.

which would not be considered a significant contribution of solid waste to the existing landfills, as the existing landfills have sufficient capacity to accommodate the solid waste generated by the Project (see Table 4.10-2).

Based on the above, construction and operation of the Project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. In addition, the project would not conflict with applicable federal, State, and local management and reduction statutes and regulations related to solid waste. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

For further detail related to the cumulative setting of the Project, refer to Chapter 6, Statutorily Required Sections, of this EIR.

4.10-10 Cumulative impacts to public services. Based on the analysis below, the cumulative impact is *less than significant*.

Potential cumulative impacts related to fire protection and law enforcement services, schools, parks, and other public service facilities are discussed below.

Fire Protection Services

The City's General Plan EIR did not identify cumulative impacts related to fire protection services. Rather, impacts were determined to be reduced to less-than-significant levels through implementation of the goals and policies included in the General Plan, as well as funding contributions through the payment of property taxes, development impact fees, and other sources. For example, the Project and future development projects would be required to pay a Fire Fee, and local sales and property taxes would provide funding to support operations. The Project would also be required to annex into the CCSD's Community Facilities Distrct (CFD) 1 for fire protection services. Furthermore, on-site development, as well as other future development throughout the City, would be required to comply with all applicable regulations imposed by the City and the CFC, as enforced by EGMC Chapter 16.95. Similar to the Project, other future development projects within the City would consult with CCSD to confirm implementation of required fire protection measures and payment of required fees. As discussed under Impact 4.10-1 above, the Project's compliance with the required fire protection measures and payment of required fees would ensure that potential impacts on fire protection services would be less than significant.

While the Project would target residents 55 years of age and older as part of the proposed Active Adult Neighborhoods, the residents are not anticipated to have an increased need for emergency services as compared to more elderly, non-ambulatory residents unable to live independently. In contrast to assisted living developments, active adult communities are generally anticipated to attract residents who are still working or in early retirement looking for an active, independent living community. Even if calls for service were to increase as a result of the Active Adult Neighborhoods as compared to a single-unit residential neighborhood, CCSD would be able to account for such an increase following the Project's annexation into CFD 1, as discussed above.

Based on the above, the Project would result in a less-than-significant cumulative impact related to fire protection services.

Law Enforcement Services

The site is anticipated for development with residential uses pursuant to the current land use and zoning designations. Therefore, the demand for law enforcement services associated with buildout of the site has generally been anticipated by the City and analyzed in the General Plan EIR. The City's General Plan EIR did not identify cumulative impacts related to law enforcement services. Rather, impacts were determined to be less than significant, as additional facilities would not be required to serve full buildout of the City's General Plan planning area, construction of which could cause significant environmental impacts. While the Project would result in an increase in population associated with the site from what has been anticipated by the General Plan EIR, which could result in an increase in demand for services, as discussed above, the EGPD has indicated that new or physically altered law enforcement facilities would not be needed to adequately serve the Project.[36]

In addition, the Project would include funding contributions through the payment of property taxes, development impact fees, and other sources, to support law enforcement services.

Similar to the Project, other future development projects within the City would be required to address impacts related to law enforcement services on a project-by-project basis. Such cumulative development would also be subject to the Capital Facilities Fee and applicable property taxes. Thus, future projects and residents would pay fair shares toward new EGPD facilities deemed necessary by the City, all of which would be required to be designed and constructed in accordance with applicable regulations and standards, and if necessary, undergo CEQA review.

Based on the above, the Project, in combination with future development occurring throughout the City, would have a less-than-significant impact related to law enforcement services.

Schools

Cumulative buildout within the City could result in overcrowding at schools in the area. However, each individual development would be required to pay SB 50 school

[36] Nijjar, Jazvie, Officer, Media and Community Relations Unit, Elk Grove Police Department. Personal communication [email] with City of Elk Grove Community Development Department staff. December 5, 2024.

impact fees, similar to the Project, which would contribute to the facilitation of school expansions to serve the needs of the area. For example, the Project would be subject to EGUSD impact development fees for active adult residential development, which is set at $0.84 per sf. Residential development that is not age-restricted is currently set at $7.17 per sf.[37] Furthermore, according to SB 50, payment of the necessary school impact fees for the project would be considered full and satisfactory CEQA mitigation. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […] involving […] the planning, use, or development of real property" (Government Code 65996(b)). Therefore, the Project, in combination with future development occurring under buildout of the City, would result in a less-than-significant cumulative impact related to the need for new, or improvements to existing, school facilities.

Parks and Recreation

The Project would include the provision of on-site open space and recreational trails, as well as payment of park dedication in-lieu fees pursuant to EGMC Section 22.28.040. As such, the Project would not result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of such facilities would occur or be accelerated. The purpose of the park and recreational fees is to provide funding for expansion of such facilities required to serve new development in the City. Therefore, the Project, in combination with future development in the City, would result in a less-than-significant cumulative impact related to parks and recreation.

Other Public Facilities and Government Services

Based on the size of the proposed development, any additional demand on libraries or other public facilities and services generated by the Project would be relatively minor, and is not likely to result in the need for alteration of existing facilities or the construction of new facilities. The Project, as well as other development in the City, would be required to pay the City's Capital Facilities Fee, which would help to fund and sustain public facilities and services, including libraries, within the City. Therefore, the Project, in combination with future development occurring under buildout of the City, would result in a less-than-significant cumulative impact.

Conclusion

Based on the above, the Project, in combination with future development occurring under buildout of the City's General Plan, would result in a ***less-than-significant*** cumulative impact related to public services.

Mitigation Measure(s)

None required.

[37] Elk Grove Unified School District. *Facilities and Planning.* Available at: https://www.egusd.net/Departments/Facilities-and-Planning/index.html. Accessed May 2025.

4.10-11 Increase in demand for utilities and service systems associated with the Project, in combination with future buildout in the Project area. Based on the analysis below, the project's incremental contribution to this significant cumulative impact is less than cumulatively considerable.

The follow discussion provides an analysis of the Project's contribution to cumulative impacts related to the increased demand for utilities and service systems within the project area.

Water Supply

As described under Impact 5.12.1.1 of the City's General Plan EIR, the projected total water demand at full City buildout would be approximately 15,000 AFY, which predominantly includes demand associated with future development in the West and South Study Areas. Although the water demand associated with the West and South Study Areas was not considered in the SCWA's 2016 UWMP, the site is not located in either area. As such, because the SCWA projects a water surplus for cumulative development for scenarios that include the Project and the associated water demand through 2040, the cumulative demand for domestic water supply (which includes surface and groundwater supplies) would be considered a less than significant cumulative impact.

Overall, although the City's long-term demand would exceed projected supply and infrastructure was not assumed for the West and South Study Areas, the Project's contribution to significant cumulative water supply and infrastructure impacts would be less than cumulatively considerable.

Wastewater Conveyance and Treatment

Cumulative development, in conjunction with the Project, would result in increased demand for wastewater treatment services provided by the SRWTP. However, regional water conservation efforts have resulted in a reduction in water use, which has in turn, increased the available capacity at the SRWTP. For instance, continued installation of water meters and water conservation measures have reduced water consumption per capita. As such, a substantial amount of additional water conservation is expected throughout SacSewer's service area, and the wastewater treatment provider expects the existing capacity to be sufficient through 2050.

In addition, new sanitary sewer conveyance infrastructure required as part of cumulative development within the City would be required to be designed and constructed in accordance with the applicable standards set forth by SacSewer. Compliance with the foregoing standards would ensure new sewer lines installed as part of buildout of the General Plan are constructed in conformance with proper materials and sizing.

Based on the above, adequate wastewater treatment services would be available to serve cumulative development within the City, in conjunction with the Project, and a less-than-significant impact would occur.

Electricity, Natural Gas, and Telecommunications Facilities

Environmental effects associated with the construction of new or expanded electricity, natural gas, and telecommunications facilities would primarily be project-specific, rather than cumulative. As noted under Impact 4.10-6, while the Project would include new connections to existing electrical, natural gas, and telecommunications infrastructure located in the vicinity, substantial extension of existing off-site infrastructure would not be required. Therefore, the Project would result in a less than cumulatively considerable impact related to construction of new or expanded electricity, natural gas, and telecommunications facilities.

Solid Waste

As noted previously, solid waste collection services for the Project would be provided by Republic Services; disposal and recycling would be provided by 10 different landfills. As noted under Impact 5.12.3.2 within the City's General Plan EIR, solid waste generated by the existing and future uses could be hauled by several permitted haulers, including Republic Services for residential uses, to be hauled to one of 10 permitted landfills for disposal. With the current space available, the 10 landfills servicing the City are anticipated to operate as far into the future as 2082. In addition, Republic Services and the other permitted haulers that serve the City would be collect service fees imposed on customers to fund any service expansions deemed necessary to meet future demand. Future residents associated with the Project would be subject to such fees, as would other City residents associated with buildout of the City pursuant to the General Plan. Therefore, development of the site with residential development, as well as buildout of the City pursuant to the General Plan, which would generate solid waste, was anticipated by the City.

Although the Project includes redesignation and rezoning of the site to designations with increased density, the site was still anticipated for residential uses. Therefore, the Project would not be anticipated to result in significantly more intense waste generation than was previously anticipated for the site and, thus, regional solid waste planning efforts. As such, the incremental increase in demand for solid waste collection and disposal services that would result from development of the Project has generally been anticipated by regional solid waste providers and the City. Overall, the cumulative impacts from past, present, and probable future projects to solid waste would be less than significant, and the Project's incremental contribution would be considered less than cumulatively considerable.

Conclusion

Based on the above, adequate water supply, wastewater capacity, electricity, telecommunication facilities, and landfill capacity would be available to serve cumulative development in conjunction with development of the Project. Therefore, a ***less-than-significant*** cumulative impact would occur.

Mitigation Measure(s)

None required.

4.11 Transportation

4.11 TRANSPORTATION

4.11.1 INTRODUCTION

The Transportation chapter of the EIR addresses the transportation conditions within the Project vicinity, including consideration of Project impacts related to pedestrian facilities, bicycle facilities, transit facilities and services, vehicle miles traveled (VMT), and traffic safety issues. The information contained within this chapter is primarily based on a Transportation Analysis Report prepared for the Project by Fehr & Peers (see Appendix N of this EIR).[1] Additional information was sourced from the City of Elk Grove General Plan,[2] and the associated General Plan EIR.[3]

4.11.2 EXISTING ENVIRONMENTAL SETTING

The section below describes the physical and operational characteristics of the existing transportation system within the Project area, including the surrounding roadway network, transit, bicycle, and pedestrian facilities.

Existing Roadways

The following sections provide a summary of the existing roadways within the Project area.

State Route 99

State Route (SR) 99 is a major freeway that connects major cities within Sacramento County and beyond. The closest interchange to the site is the Sheldon Road interchange, located approximately 2.5 miles to the west. Within the City, SR 99 generally has two mainline travel lanes and one high-occupancy vehicle lane in either direction with a posted speed limit of 65 miles per hour (mph).

Sheldon Road

Sheldon Road is an east–west roadway that extends from Grant Line Road at the eastern portion of the City of Elk Grove to Bruceville Road to the west. Sheldon Road is subject to the Elk Grove Rural Road Improvement Policy. The intersection of Sheldon Road and Waterman Road has recently been improved to a roundabout with at-grade bicycle and pedestrian crossings. Sheldon Road is a four-lane arterial road between Bruceville Road and Jocelyn Way/Lewis Stein Road, and six lanes between Jocelyn Way/Lewis Stein Road and Power Inn Road. The road then decreases to four lanes until Elk Grove Florin Road and finally continues as two-lane roadway up to Grant Line Road. Sheldon Road between Waterman Road and Bradshaw Road has an average daily traffic (ADT) volume of approximately 10,600 vehicles. ADT on Sheldon Road between Elk Grove Florin Road and Waterman Road is 13,800 vehicles, and between Lewis Stein Road and SR 99 is 31,350. The posted speed limit is 40 mph on Sheldon Road near the site. The posted speed limit continues both east and west beyond the site.

1 Fehr & Peers. *Summer Villas Special Planning Area (SPA) Transportation Analysis Report.* September 2025.
2 City of Elk Grove. *General Plan.* Adopted February 2019. Amended December 13, 2023.
3 City of Elk Grove. *General Plan Update Draft Environmental Impact Report.* February 2019.

Waterman Road

Waterman Road is a north–south roadway that extends south of Vintage Park Drive in Sacramento County to Grant Line Road in the City of Elk Grove. The segment of Waterman Road located 0.5-mile north and south of Sheldon Road are subject to the Elk Grove Rural Road Improvement Policy. The entire length of Waterman Road is generally a two-lane arterial. ADT on Waterman Road between Calvine Road and Sheldon Road is 11,100, between Sheldon Road and Bond Road is 12,470, and south of Bond Road is 10,300. The posted speed limit on Waterman Road is 45 mph.

Bradshaw Road

Bradshaw Road is a north–south arterial less than 0.5-mile east of the site, extending from Folsom Boulevard in Sacramento County to Grant Line Road in the City of Elk Grove. Bradshaw Road is generally a two-lane roadway. ADT on Bradshaw Road between Calvine Road and Sheldon Road is 19,500, between Sheldon Road and Bond Road is 16,100, and south of Bond Road is 12,400. The posted speed limit on Bradshaw Road is 45 mph.

Elk Grove Florin Road

Elk Grove Florin Road is a north–south arterial extending from Florin Road in Sacramento County to East Stockton Boulevard in the City of Elk Grove. North of Florin Road, Elk Grove Florin Road continues as South Watt Avenue and provides regional connection to the City of Sacramento. Elk Grove Florin Road is generally a four-lane roadway between Florin Road and Gerber Road. South of Gerber Road, the road varies between five and then six lanes until Sheldon Road. South of Sheldon Road, the road continues as four lanes to Bond Road and then finally continues on as two lanes. ADT on Elk Grove Florin Road between Calvine Road and Sheldon Road is 26,700, between Sheldon Road and Bond Road is 22,800, and South of Bond Road is 20,700. The posted speed limit on Bradshaw Road is 45 mph.

Calvine Road

Calvine Road is an east–west major arterial extending east from SR 99 to Grant Line Road and forms the City's northern edge. West of SR 99, Calvine Road continues as Cosumnes River Boulevard and connects to Interstate 5 (I-5). The site is located one mile south of Calvine Road. Calvine Road is six lanes from Power Inn Road to Cliffcrest Drive, transitions to four lanes from Cliffcrest Drive to Vintage Park Drive, and then to five lanes between Vintage Park Drive and Elk Grove Florin Road. ADT on Calvine Road between Waterman Road and Bradshaw Road is 19,000 and between Elk Grove Florin Road and Waterman Road is 29,520. The posted speed limit of Calvine Road is 45 mph.

Bond Road

Bond Road is an east–west roadway that extends from SR 99 to Grant Line Road. West of SR 99, Bond Road continues as Laguna Boulevard and connects to I-5. The site is located half a mile north of Bond Road. Bond Road is four lanes between East Stockton Boulevard to Bradshaw Road. East of Bradshaw Road, Bond Road is two lanes. Bond Road east of Bradshaw Road is subject to the Elk Grove Rural Road Improvement Policy. ADT on Bond Road between East Stockton Boulevard and Elk Grove Florin Road is 28,500, between Elk Grove Florin Road and Waterman Road is 20,800, between Waterman Road and Bradshaw Road is 17,300, and east of Waterman Road is 8,700. The posted speed limit on the roadway west of Bradshaw Road is 45 mph and 40 mph east of Bradshaw Road.

Pedestrian, Bicycle and Transit Facilities

The sections below describe the existing pedestrian, bicycle and transit facilities located within the vicinity of the site.

Pedestrian Facilities

Sidewalks are not present on Sheldon Road, Waterman Road, or Bradshaw Road. A new multi-use path was constructed as part of the under construction Elliot Springs Special Planning Area (SPA) Subdivision southwest of the Project. The City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan (BPTMP) and Rural Road Improvement Policy and Standards include a planned Class I multi-use path along Waterman Road that could be used for pedestrian access and would connect to the existing sidewalks on Bond Road and Calvine Road.[4] Such connections are dependent upon future Project development. The most immediate connection would be an at-grade crossing at Elliott Springs Drive at the southwest corner of the site to access the existing off-street trails on the north side of Elliott Springs Drive and west side of Waterman Road. The connection would provide access to Calvine Road and Bond Road. Other improvements are not planned to be implemented in the short-term. However, sidewalks are not planned along Sheldon Road near the site.

Pedestrian Streetscore Level of Stress

The Pedestrian Level of Stress (LTS) refers to the pedestrian comfort associated with a roadway or intersection. A tool to evaluate Pedestrian and Bicycle LTS called Streetscore+ was developed by Fehr & Peers and includes recommended parameters for the pedestrian environment provided by the National Association of City Transportation Officials (NACTO) Urban Streets Design Guide (USDG) and additional considerations of comfort informed by practitioner and best practice experience. Roadway segments and intersection approaches receive individual scores based on different considerations. The following factors are considered in developing the Pedestrian Streetscore+ for roadways: usable driveway space, driveways, pedestrian-scale lighting, street trees and landscaping, speed, sidewalk quality, number of travel lanes, vehicle volumes, and crosswalk frequency. The following factors are considered for intersections: crossing distance, accessibility, channelized right-turns, leading pedestrian intervals (LPIs), and pedestrian scrambles. The Pedestrian Streetscore LTS uses a scale that ranges from 1 to 4, with 1 being the least stressful and 4 being the most stressful. Table 4.11-1 summarizes Pedestrian Streetscore LTS.

Table 4.11-1
Pedestrian Streetscore LTS

Streetscore LTS	Description
1	Highly comfortable, pedestrian-friendly, and easily navigable for pedestrians of all ages and abilities, including seniors or school-aged children walking unaccompanied to school. These streets provide an ideal “pedestrian-friendly” environment.
2	Generally comfortable for many pedestrians, but parents may not feel comfortable with children walking alone. Seniors may have concerns about the walking environment and take more caution. The streets may be part of a “pedestrian-friendly” environment where the streets intersect with a more auto-oriented roadway or other environmental constraints.

(Continues on next page)

[4] City of Elk Grove. *Bicycle, Pedestrian, & Trails Master Plan*. May 2021.

Table 4.11-1
Pedestrian Streetscore LTS

Streetscore LTS	Description
3	Walking is uncomfortable but possible. Minimum sidewalk and crossing facilities may be present, but barriers are also present that make the walking experience uninviting and uncomfortable.
4	Walking is a barrier and is very uncomfortable or even impossible. Streets have limited or nonexistent accommodation for pedestrians and are inhospitable and possibly unsafe environment for pedestrians.

Source: Fehr & Peers, 2025.

The BPTMP designates the segments of Sheldon Road and Waterman Road in the vicinity of the site as LTS 4.

Bicycle Facilities

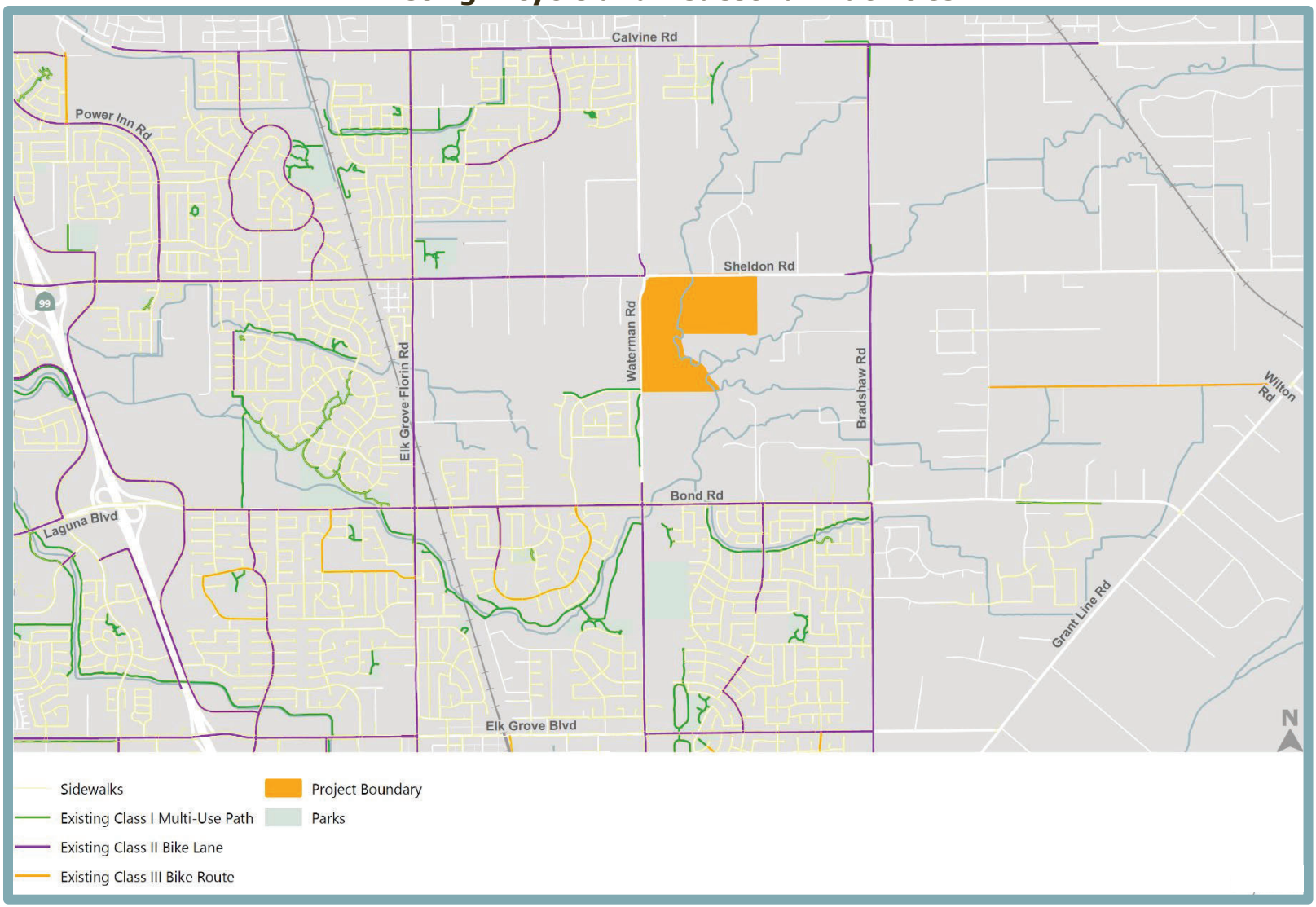
The City of Elk Grove includes the following bicycle system classifications:

- Class I Multi-Use Paths: Dedicated paths for walking and bicycling completely separate from the roadway.
- Class II Bicycle Lanes: Striped lanes for bicyclists.
    - Class II Bicycle Lanes with Green-Colored Pavement: Striped lanes for bicyclists that includes green-colored pavement, either as a corridor treatment along the length of a bike lane or in conflict areas.
    - Class II Buffered Bicycle Lanes: Bicycle lanes that includes a striped "buffer" area either between the bicycle lane and travel lane or between the bicycle lanes and parked cars.
- Class III Bicycle Routes: Signed routes for bicyclists on low-speed, low-volume streets where lanes are shared with motorists.
    - Class III Bicycle Boulevards: Bicycle routes that are further enhanced with traffic calming features or other treatments to prioritize bicyclist comfort.
- Class IV Separated Bikeways: On-street bicycle facilities with a physical barrier between the bicycle space and motor vehicle lanes, including bollards, curbs, or parking.

The shoulders along Waterman Road and Sheldon Road to the west of Waterman Road are currently striped as Class II Bicycle Lanes. A new multi-use path was constructed as part of the existing subdivision in the southwest corner of the project. The Sheldon Road/Waterman Road intersection includes a recently improved roundabout bicycle crossing (see Figure 4.11-1).

The BPTMP and the Rural Road Improvement Policy and Standards propose Class II Buffered Bicycle lanes on Waterman Road along the Project frontage and a Class I Multi-Use Path along Sheldon Road between Elk Grove Florin Road and Waterman Road. A Class I Multi-Use Path is also proposed along the Project frontage parallel to Waterman Road. The Rural Road Improvement Policy and Standards include planned bike lanes along Sheldon Road within the Rural Residential area of the City.

Figure 4.11-1
Existing Bicycle and Pedestrian Facilities



Source: Fehr & Peers, 2025.

Bicycle Streetscore Level of Stress

Bicycle LTS refers to the comfort associated with roadways, or the mental ease people experience riding on the roadways. The criteria establish a "weakest link" approach, as roadways are classified based on their segments with the highest level of traffic stress, assuming that only those that are comfortable riding under the higher stress would travel on that road. Factors influencing LTS include the following:

- Number of travel lanes;
- Speed of traffic;
- Number of vehicles;
- Presence of bike lanes;
- Width of bike lanes; or
- Presence of physical barrier.

Bicycle riders vary in experience, skill, ability, and confidence. As such, riders rely on the bikeway system to cater to their specific needs and abilities. Recent research has correlated these different bicycle riders with the level of "traffic stress" they are willing to experience while cycling. Bicycle LTS criteria span from 1 to 4, with 1 being the least stressful and 4 being the most stressful. Table 4.11-2 summarizes bicycle Streetscore LTS.

Table 4.11-2
Bicycle Streetscore Level of Stress

Streetscore Level of Stress	Description
1	Most children and elderly riders can tolerate this level of stress and feel safe and comfortable. LTS 1 roadways typically require more separation from traffic.
2	Highest level of stress that the mainstream adult population will tolerate while still feeling safe.
3	Bicyclists who are considered "enthused and confident," but still prefer having their own dedicated space for riding will tolerate this level of stress and feel safe while bicycling.
4	For bicyclists, this is tolerated only by those characterized as "strong and fearless," which comprises a small percentage of the population. These roadways have high speed limits, multiple travel lanes, limited or non-existent bike lanes and signage, and large distances to cross at intersections.

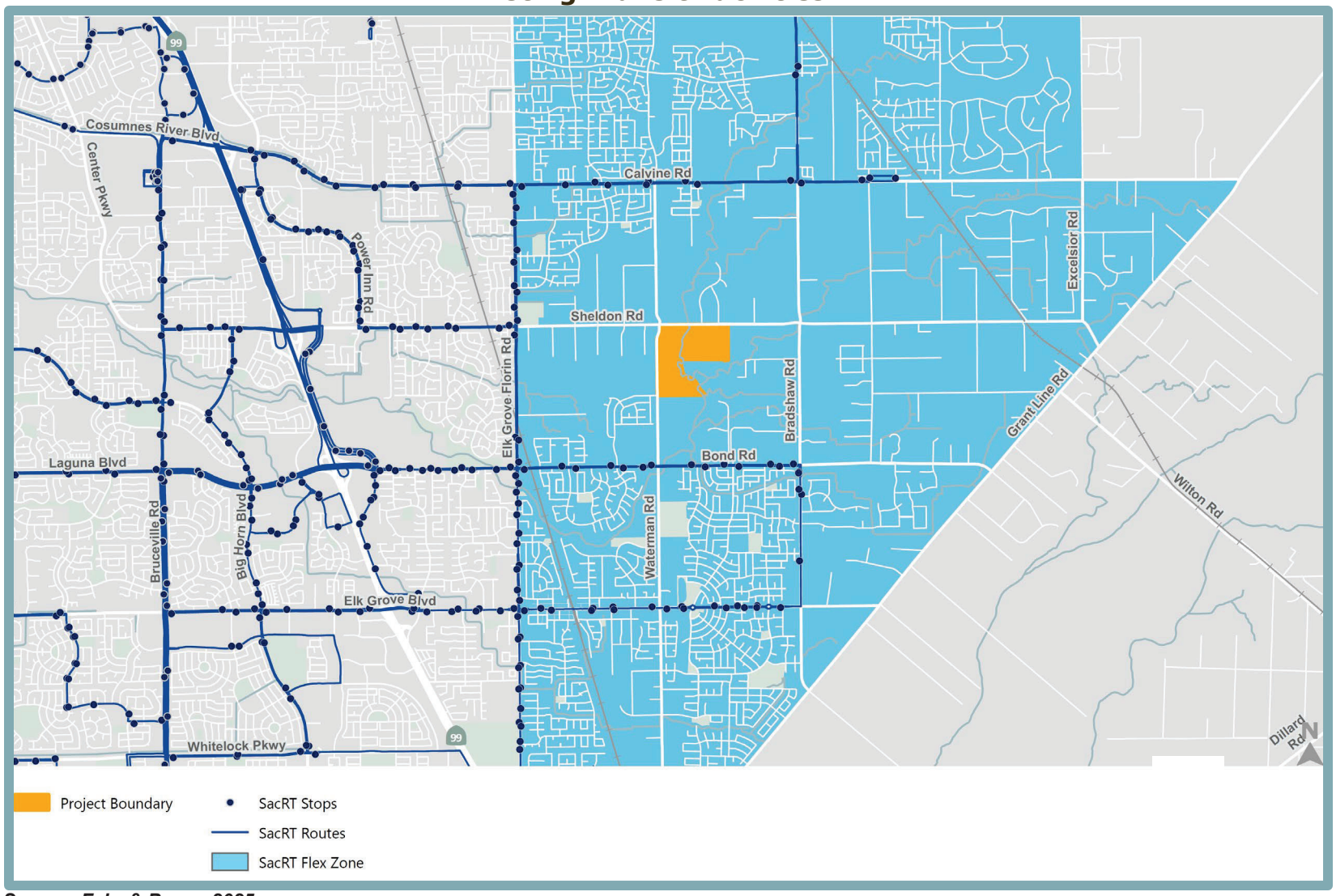
Source: Fehr & Peers, 2025.

The BPTMP designates the entire length of Sheldon Road as a High LTS (LTS 4). Waterman Road is designated as LTS 4 north of the site and LTS 3 along the Project frontage. All approaches at the Waterman Road and Sheldon Road intersection are also designated as LTS 4. A bicycle collision near the site resulted in fatality within the last 3 years. The City of Elk Grove BPTMP has the goal to reduce the percent of arterial streets that are LTS 4 from 84 percent to 70 percent by 2040.

Transit System

Transit facilities do not exist within 0.5-mile of the site. The nearest bus stops are one mile from the site at the Elk Grove Florin Road/Sheldon Road intersection (west of the site), the Bond Road/Waterman Road intersection (south of the site), and the Calvine Road/Waterman Road intersection (north of the site). Four current bus routes operated by Sacramento Regional Transit (SacRT) serve the three bus stops (see Figure 4.11-2).

Figure 4.11-2
Existing Transit Facilities



Source: Fehr & Peers, 2025.

*Figure not OCR compatible.

Transit routes operating in the vicinity of the site are as follows:

- **Route E114** is a local route that provides service between Bradshaw Christian High School and Sheldon High School at Bradshaw Road and Calvine Road. The route serves Cosumnes River College through to the Laguna and Laguna West neighborhoods. The route operates Monday through Friday from approximately 6:00 AM to 8:00 PM and from 7:00 AM to 5:30 PM on Saturdays. Generally, the route runs hourly. The nearest stop is located one mile north of the site at Calvine Road and Waterman Road.
- **Route E115** is a local route that provides service from Elk Grove Boulevard at Clarke Farms Drive to Cosumnes River College by Bond Road and Sheldon Road. The route runs westbound Monday through Friday from approximately 6:00 AM to 8:00 PM to Cosumnes River College and eastbound 8:30 AM to 9:00 PM. The nearest stop is located one mile west of the site at Sheldon Road and Elk Grove Florin Road.
- **Route E19** is a commuter route that provides service from Laguna West at Harbour Point Drive to the Butterfield Light Rail Station on Folsom Boulevard. The route runs every hour Monday through Friday from 5:00 AM to 7:00 AM heading to the Light Rail Station and returning every hour from 3:00 PM to 5:00 PM. The nearest stop is one mile west of the site at Sheldon Road and Elk Grove Florin Road.
- **Route E15** is a commuter route that provides service from Bond Road at Bradshaw Road near Katherine Albiani Middle School and Pleasant Grove High School to downtown Sacramento. The route provides two buses towards Sacramento in the morning at 6:15 AM and 6:45 AM and two buses returning to Elk Grove in the evening at 4:15 PM and 4:45 PM. The nearest stop is one mile northwest of the site at Bond Road and Elk Grove Florin Road.
- **SmaRT Ride** is an on-demand service operated by SacRT. Customers can use a smartphone app to request a ride that will pick up and drop off passengers within the service boundaries. The site is within the Elk Grove SmaRT Ride zone. The service offers corner-to-corner service where passengers are picked up and dropped off at the nearest corner or 'virtual bus stop,' which is usually within a block or two of their pickup or drop-off location. SmaRT ride services do not provide service outside of the zone. SmaRT Ride is available Monday through Friday from 7:00 AM to 7:00 PM.

Vehicle Miles Traveled

VMT is a measure of the total amount of vehicle travel occurring on a given roadway system. VMT is a metric that accounts for the number of vehicle trips generated and the length or distance of those trips. For analysis purposes, VMT refers to automobile VMT, specifically passenger vehicles and light trucks; heavy truck traffic is typically excluded. VMT does not directly measure traffic operations; instead, VMT is a measure of transportation network use and efficiency, especially when expressed as a function of population (i.e., VMT per capita).

As a result of Senate Bill (SB) 743, passed in 2013, local jurisdictions may not rely on vehicle level of service (LOS) and similar measures related to delay as the basis for determining the significance of transportation impacts under the California Environmental Quality Act (CEQA). Thus, consistent with the CEQA Guidelines, VMT is the primary metric used to identify transportation impacts to roadway systems within this chapter.

The City of Elk Grove currently uses VMT procedures and standards consistent with technical guidance published by the Governor's Office of Land Use and Climate Change (LCI) (formerly the Office of Planning and Research [OPR]). Consistent with CEQA Guidelines Section 15064.7,

the City selected VMT per service population as the preferred performance metric for implementing its VMT policy. Of the performance metrics considered, VMT per service population was the most intuitive to the decision makers and supported implementation of the General Plan by incentivizing development in the City's core and not in sensitive resource areas that the community values. A key emphasis of the General Plan was to plan and develop a better job-to-housing balance so residents can work where they live, and to support more mixed-use development to reduce the need to travel by car for goods and services. The VMT per service population metric captures trip-reduction benefits and accounts for travel from the full range of users and not just residents or just workers.

In addition, the City of Elk Grove uses VMT performance targets by General Plan land use category and VMT limits for the City and study areas, which is an additional step to ensure consistency with the General Plan.

Table 4.11-3 and Table 4.11-4 summarize the relevant VMT limits at General Plan Buildout (i.e., within the City limits) and VMT by General Plan land use category, respectively.

Table 4.11-3
Daily VMT Limit by General Plan Study Area

City Limit and Study Areas	VMT Limit for Daily Total VMT[1]
City	8,066,247
North Study Area	27,383
East Study Area	584,786
South Study Area	1,594,674
West Study Area	773,103

[1] VMT Limit is 85 percent of the average base year VMT per service population by land use.

Source: Fehr & Peers, 2025.

Table 4.11-4
Daily VMT Per Service Population by Land Use Category

Land Use Designation	VMT Per Service Population	
	Base Year (2020)	VMT Limit[1]
Commercial and Employment		
Community Commercial (CC)	31.4	26.7
Regional Commercial (RC)	31.7	26.9
Employment Center (EC)	23.8	20.2
Light Industrial/Flex (LI/F)	--	15.5
Light Industrial (LI)	26.4	22.4
Heavy Industrial (HI)	31.2	26.5
Mixed Use		
Village Center Mixed Use (VCMU)	--	19.4
Residential Mixed Use (RMU)	--	20.6
Transect		
General Neighborhood Residential 9T3-R)	--	20.7
Neighborhood Center Low (T3)	--	21.1
Neighborhood Center Medium (T4)	--	20.2

(Continues on next page)

Table 4.11-4
Daily VMT Per Service Population by Land Use Category

Land Use Designation	VMT Per Service Population	
	Base Year (2020)	VMT Limit[1]
Neighborhood Center High (T5)	--	15.7
Public/Quasi-Public and Open Space		
Parks and Open Space (P/OS)	--	NA[2]
Resource Management and Conservation (RMC)	--	NA[2]
Public Services (PS)	--	NA[2]
Residential		
Rural Residential (RR)	29.6	25.2
Estate Residential (ER)	24.2	20.6
Low Density Residential (LDR)	22.7	19.3
Medium Density Residential (MDR)	21.0	17.9
High Density Residential (HDR)	20.8	17.7
Other		
Agriculture (AG)	--	NA[2]

[1] VMT Limit is 85 percent of the average base year VMT per service population for parcels with land use designation or VMT per service population at buildout for land use designation that do not exist in the base year.
[2] These land use designations are not anticipated to produce substantial VMT, as the land use designations do not have residents, and few to zero employees.

Source: Fehr & Peers, 2025.

4.11.3 REGULATORY CONTEXT

Existing transportation policies, laws, and regulations that would apply to the Project are summarized below and provide a context for the impact discussion related to the Project's consistency with the applicable regulatory conditions. Federal plans, policies, regulations, or laws related to transportation and circulation are not directly applicable to the Project. Rather, the analysis presented herein focuses on State and local regulations, which govern the regulatory environment related to transportation and circulation at the project level.

State Regulations

The following are the regulations pertinent to the Project at the State level, organized chronologically.

Senate Bill 743

In 2013, SB 743 was passed to amend Sections 65088.1 and 65088.4 of the Government Code, amend Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3 of the Public Resources Code (PRC), to add Section 21155.4 to the PRC, to add Chapter 2.7 (commencing with Section 21099) to Division 13 of the PRC, to add and repeal Section 21168.6.6 of the PRC, and to repeal and add Section 21185 of the PRC, relating to environmental quality. In response to SB 743, the LCI (formerly the OPR) has updated the CEQA Guidelines to include new transportation-related evaluation metrics. In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package along with an updated Technical Advisory related to Evaluating Transportation Impacts in CEQA. Full compliance with the Guidelines became effective July 2020. As a result of SB 743, and Section 15064.3 of the CEQA Guidelines, as discussed in further detail below, local jurisdictions may no longer rely on vehicle LOS and similar

measures related to delay as the basis for determining the significance of transportation impacts under CEQA, and instead a VMT metric should be evaluated.

Technical Advisory on Evaluating Transportation Impacts in CEQA

In December of 2018, the LCI (formerly the OPR) published the Technical Advisory on Evaluation Transportation Impacts in CEQA (Technical Advisory), which is a guidance document to provide advice and recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. The Technical Advisory is intended to be a resource for the public to use at their discretion, and the LCI does not enforce any part of the recommendations contained therein.

The Technical Advisory includes recommendations regarding methodology, screening thresholds, and recommended thresholds per land use type.

Vehicle Miles Traveled-Focused Transportation Impact Study Guide

In May of 2020, the California Department of Transportation (Caltrans) adopted the VMT-Focused Transportation Impact Study Guide (TISG) to provide direction to lead agencies regarding compliance with SB 743. The TISG replaces the Caltrans' 2002 Guide for the Preparation of Traffic Impact Studies and is for use with local land use projects, not for transportation projects on the State Highway System. The objectives of the TISG are to provide:[5]

a) Guidance in determining when a lead agency for a land use project or plan should analyze possible impacts to the State Highway System, including users of the State Highway System.
b) An update to the Guide for the Preparation of Traffic Impact Studies (Caltrans, 2002) that is consistent with SB 743 and the CEQA Guidelines adopted on December 28, 2018.
c) Guidance for Caltrans land use review that supports state land use goals, state planning priorities, and greenhouse gas (GHG) emission reduction goals.
d) Statewide consistency in identifying land use projects' possible transportation impacts, to the State Highway System, and to identify potential non-capacity increasing mitigation measures.
e) Recommendations for early coordination during the planning phase of a land use project to reduce the time, cost, and/or frequency of preparing a Transportation Impact Study or other indicated analysis.

Caltrans has jurisdiction over State highways. Therefore, Caltrans controls all construction, modification, and maintenance of State highways, and any improvements to such roadways require Caltrans approval before moving forward. The site is located approximately 2.5 miles east of SR 99.

Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance

In December 2020, Caltrans released Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance (Traffic Safety Guidance). The purpose of the Caltrans Traffic Safety Guidance is to provide instructions to Caltrans personnel, lead agencies, developers, and consultants conducting safety reviews for proposed land use projects and plans affecting the State Highway System. The Guidance establishes the safety

[5] California Department of Transportation. *Vehicle Miles Traveled-Focused Transportation Impact Study Guide*. May 20, 2020.

impact review expectations for Caltrans and lead agencies to comply with CEQA, and is intended to be used by lead agencies, developers, and consultants as a model for analyzing the safety impacts of proposed land use projects and plans on local roadways. The Guidance prioritizes vulnerable users and communities; enhances safety for pedestrians, bicycle, transit and vehicular modes; and applies both reactive and systemic perspectives.

Local Regulations

The following are the local environmental laws and policies relevant to transportation.

Metropolitan Transportation Plan/Sustainable Communities Strategy

The Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) is a federally mandated, long-range planning document for identifying and programming roadway improvements throughout the region, including the City of Elk Grove. The MTP/SCS is required to be a 20-year multimodal transportation plan that is financially feasible, achieves health standards for clean air, and addresses statewide climate goals.

City of Elk Grove General Plan

The following goals and policies from the City of Elk Grove General Plan related to transportation are applicable to the Project:

GOAL MOB-1 A Connected Transportation Network That provides for the Safe and Efficient Movement of people and Goods Across All Modes While Accounting for Environmental Effects

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 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:

(i) 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, which incorporates the 15 percent reduction from 2015 conditions.
(ii) 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 8,066,247 VMT (total daily VMT).
(iii) 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.

(b) Transportation Projects – Transportation projects likely to lead to measurable increase in VMT shall:

(i) Not increase VMT per service population. Projects must demonstrate that the VMT effect of the project does not exceed the project's baseline condition VMT.
(ii) Be consistent with the regional projections and plans. The project shall be specifically referenced or listed in the region's MTP/ SCS and represented in accompanying the regional travel forecasting model. Subject transportation projects that are not consistent with the MTP/SCS shall instead demonstrate that the cumulative VMT effect does not increase regional VMT per service population.

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.

Goal MOB-3 All Streets in the City are Complete and Sensitive to Context

	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.
	Policy MOB-3-4	As new roads are constructed, assess how the needs of all users can be integrated into the street design based on the local context and functional classification.
	Policy MOB-3-6	Execute complete streets design in accordance with neighborhood context and consistent with specific guidance in community plans or area plans, as applicable.
	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-3-11	Design and plan roadways such that the safety of the most vulnerable user is considered first using best practices and industry design standards.
Goal MOB-4	Active Transportation For All	
	Policy MOB-4-1	Ensure that community and area plans, specific plans, and development projects promote 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-4-3	Prioritize infrastructure improvements that benefit bicycle and pedestrian safety and convenience over vehicle efficiency improvements within and near community facilities, activity centers, and other pedestrian-oriented areas.
	Policy MOB-4-4	Employ the recommendations and guidelines in the Bicycle, Pedestrian, and Trails Master Plan when planning and designing bicycle, pedestrian, and trail facilities and infrastructure, including updates to the Capital Improvement Program.
Goal MOB-5	A Safe, Connected, and Convenient Transit System	

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 high-frequency transit alignment and other major transit corridors.

Policy MOB-5-8 Maintain and enhance transit services throughout the City in a manner that ensures frequent, reliable, timely, cost-effective, and responsive service to meet the City's needs. Enhance transit services where feasible to accommodate growth and transit needs as funding allows.

City of Elk Grove Transportation Analysis Guidelines

The City of Elk Grove Transportation Analysis Guidelines, updated December 2023, is a living policy document updated and maintained by the City of Elk Grove's Community Development Department. The Transportation Analysis Guidelines provides guidance regarding the City's preferred methods for conducting transportation analysis. The guidelines incorporate various elements of the Technical Advisory, but refinements and clarifications have been added to reflect local conditions. The guidelines also include requirements for multimodal (bicycle, pedestrian, and transit) transportation analysis, hazards related to design, on-site circulation, and construction. Table 9 of the Guidelines also establishes design targets for roadway segments based on the daily two-way total volumes.

City of Elk Grove Rural Road Policy and Rural Road Improvement Standards

The City of Elk Grove Rural Road Policy, updated December 2019, is intended to preserve and maintain the rural roadways in the City's rural residential area. The policy establishes a value-based approach for incremental (rather than ultimate) road improvements that solve specific traffic issues identified through periodic evaluations of traffic conditions. Road improvements within the City's defined rural residential area shall be implemented in response to traffic impacts.[6]

The Rural Road Improvement Standards implement the General Plan goals, policies, and actions. These standards implement the provisions of the Land Use and Circulation Elements regarding the maintenance of features that create the rural character. This document replaces the Citywide Improvement Standards for design details associated with road improvements for the City's designated rural/residential area.[7]

City of Elk Grove Bicycle, Pedestrian and Trails Master Plan

The City Council adopted the BPTMP in May 2021. The City of Elk Grove BPTMP 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 goal of the BPTMP 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, destination points for bicycle users and pedestrians, and proposed bicycle and pedestrian improvements.

6 City of Elk Grove. *Elk Grove Rural Road Policy*. Amended December 2019.
7 City of Elk Grove. *Elk Grove Rural Road Improvement Standards*. Amended December 2019.

4.11.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology utilized to analyze and determine the Project's potential impacts related to transportation and circulation.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the Project would be considered to result in a significant adverse impact on the environment in relation to transportation if the Project would result in any of the following:

- Conflict with a program, plan, ordinance, or policy, addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards to vehicle safety due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

Pedestrian Facilities

The Project would have a significant impact on pedestrian facilities if implementation of the Project would:

- Fail to provide accessible and safe pedestrian connections between buildings and adjacent streets and transit facilities;
- Disrupt existing or planned bicycle facilities or conflicts with adopted City non-auto plans, guidelines, policies, or standards;
- Add trips to an existing transportation facility or service (e.g., sidewalk) that does not meet current design standards; and/or
- Degrade the Pedestrian Streetscore LTS.

Bicycle Facilities

The Project would have a significant impact on bicycle facilities if implementation of the Project would:

- Disrupt existing or planned bicycle facilities or conflicts with adopted City non-auto plans, guidelines, policies, or standards;
- Add trips to an existing transportation facility or service (e.g., bike path) that does not meet current design standards; and/or
- Degrade the Bicycle Streetscore LTS.

Transit Facilities

The Project would have a significant impact on transit facilities if implementation of the Project would:

- Create demand for public transit service above the maximum passenger load that is provided or planned; and/or
- Disrupt existing or planned transit facilities and services or conflicts with adopted City non-auto plans, guidelines, policies, or standards.

VMT Standards of Significance

As part of the 2023 General Plan update, the City has developed a City of Elk Grove travel demand model (EGSIM20). EGSIM20 is a modified version of the latest Activity-Based Travel Demand Model developed by SACOG known as SACSIM19. With the development of EGSIM20 and associated calibration and revalidation in 2022/2023, Fehr & Peers re-estimated the VMT performance measures, compared to the 2019 General Plan. This model and the latest VMT thresholds were used to analyze the Project. .

- Land Use Limits – Sum of all vehicle miles traveled produced by uses in the applicable land use designation, divided by the sum of total employees working within the assessed area and dwelling units in the assessed area. An impact related to VMT would be significant if implementation of the Project would result in an exceedance of the VMT limits of the Project's following General Plan land use designations, which incorporate a 15 percent reduction for existing (i.e., 2020) condition:
    - Low Density Residential – 19.3 daily VMT per service population
- City Limits – Sum of all daily vehicle miles traveled produced by all uses within the City. An impact related to VMT would be significant if implementation of the Project would result in an exceedance of the established 8,066,247 total daily VMT within the City Limits.

Construction-Related Traffic Impacts

The Project would have a significant construction-related traffic if implementation of the Project would:

- Cause inconveniences to motorists due to prolonged road closures; and/or
- Result in an increased frequency of potential conflicts between vehicles, pedestrians, and bicyclists.

Method of Analysis

The information contained within this chapter is primarily based on the Transportation Analysis Report prepared for the Project by Fehr & Peers.

It should be noted that, pursuant to CEQA Guidelines Section 15064.3, impact significance in this chapter is based upon VMT. Operations of the City's roadway system, including roadway capacity, were also analyzed by Fehr & Peers as part of the Project's Transportation Analysis Report and are used to analyze the Project's consistency with the General Plan and supporting policies and programs, such as the Rural Roads Policy and Rural Roads Standards. The findings of the roadway capacity analysis have been incorporated into Chapter 3, Project Description, of this EIR. Where applicable, this chapter incorporates the analysis in the Transportation Analysis Report to address potential safety impacts related to transportation.

Further discussion of the methodology used in the Transportation Analysis Report related to the analysis presented herein is included below, and the Transportation Analysis Report is included as Appendix N to this EIR.

Project Trip Generation

The trip generation for the Project was calculated using trip generation rates published in the Institute of Transportation Engineers 11th Edition Trip Generation Manual. The applicable rate for the proposed land use is category 251 (Senior Adult Housing – Single-Family). Application of the foregoing trip generation rates to the 499 age-restricted single-unit residences yields a total of

1,944 daily trips with 108 trips generated in the AM peak hour and 135 trips generated during the PM peak hour. Table 4.11-5 summarizes the trip generation associated with the Project.

Table 4.11-5
Project Trip Generation

Land Use	ITE Code	Time	Trip Rate	Percent In	Percent Out	Total Trips	Ins	Outs
Senior Adult Housing – Detached	251	Daily	4.31	50	50	1,944	972	972
		AM Peak Hour	0.24	33	67	108	36	72
		PM Peak Hour	0.3	61	39	135	82	53

Source: Fehr & Peers, 2025.

Vehicle Miles Traveled Assessment

As part of the Transportation Analysis Report, Fehr & Peers utilized the City's EGSIM20 model to evaluate the Project, analyzing the Project based upon the City's current VMT thresholds, as required by SB 743, in order to ensure that the effects of the Project. The Project's total daily VMT were evaluated against the underlying General Plan Land Use Designation limit of VMT per service population and the cumulative Citywide (or Study Area) limit of total daily VMT. Active Adult units on average generate less trips than traditional single-unit residences, which was accounted for by adjusting the age of household population in the population synthesis portion of the SACSIM activity-based model. In addition, an off-model adjustment was done by comparing the model trip rates for active-adult households with ITE trip rates for the same household type.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to transportation is based on implementation of the Project in comparison to the existing conditions and the standards of significance presented above.

4.11-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The Project would include the development of an active adult housing community within a 71.3-acre portion of the site. As discussed in further detail in Chapter 3, Project Description, of this EIR, development of the Project would trigger the need for off-site roadway improvements. Specifically, the Project would require improvements to the existing roundabouts at the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections. The Sheldon Road/Waterman Road intersection is located adjacent to the site's northwest corner. Under existing conditions, both intersections consist of multi-lane roundabouts that may be approached from the north, south, east, and west, and include a vegetated central island. Additional off-site improvements include the construction of approximately 6,500 linear feet of off-site four- to six-inch diameter force mains in Sheldon Road and Elk Grove Florin Road to support the Project, as well as the extension of water mains to either connect to an existing main in Waterman Road or near Elk Grove Florin Road.

Construction activities associated with the Project, including the off-site improvements, would include use of construction equipment, including vehicles removing or delivering fill material, bulldozers, and other heavy machinery, as well as building materials delivery, and construction worker commutes. The transport of heavy construction equipment to the site, haul truck trips, and construction worker commutes could affect the local roadway network.

Construction workers typically arrive before the morning peak hour and leave before the evening peak hours of the traditional commute time periods. Deliveries of building material (lumber, concrete, asphalt, etc.) would also normally occur outside of the traditional commute time periods. In addition, any truck traffic to the site would follow designated truck routes established by Caltrans, and project construction would likely stage any large vehicles (i.e., earth-moving equipment, cranes, etc.) on the site prior to beginning site work and remove such vehicles at project completion. However, detailed information related to the construction routes and equipment staging, or a construction management plan, is not available. As a result, construction activities could include disruptions to the transportation network near the site. In addition, construction of the off-site improvements would require some level of roadway, lane, or shoulder closure.

Pursuant to Chapter 12.08 of the Elk Grove Municipal Code (EGMC), an Encroachment Permit would be required if any work affecting the public right-of-way is performed. Nonetheless, without proper planning of construction activities, construction traffic could interfere with existing roadway operations during the construction phase, which could result in a risk to public safety. Therefore, project traffic related to construction activities could result in a ***significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.11-1 *The Improvement Plans shall include a striping and signing plan and shall include all on- and off-site traffic control devices. Prior to the commencement of construction, a construction signing and traffic control plan shall be provided to the City of Elk Grove Community Development Department for review and approval. The construction signing and traffic control plan shall include (but not be limited to) items such as:*

- *Estimate of the number and size of trucks per day entering and leaving the site;*
- *Identification of arrival/departure times that would minimize traffic impacts;*
- *Approved truck circulation patterns;*
- *Locations of staging areas;*
- *Locations of employee parking and methods to encourage carpooling and use of alternative transportation;*
- *Methods for partial/complete street closures (e.g., timing, signage, location and duration restrictions);*

- *Criteria for use of flaggers and other traffic controls;*
- *Preservation of safe and convenient passage for bicyclists and pedestrians through/around construction areas;*
- *Monitoring for roadbed damage and timing for completing repairs;*
- *Limitations on construction activity during peak/holiday weekends and special events;*
- *Preservation of emergency vehicle access;*
- *Removing traffic obstructions during emergency evacuation events; and*
- *Providing a point of contact for City residents and guests to obtain construction information, have questions answered, and convey complaints.*

The construction signing and traffic control plan shall be developed such that the following minimum set of performance standards is achieved throughout Project construction. It is anticipated that additional performance standards would be developed once details of Project construction are better known.

- *All construction employees shall park in designated lots owned by the Project applicant or on private lots otherwise arranged for by the Project applicant.*
- *Roadways shall be maintained clear of debris (e.g., rocks) that could otherwise impede travel and impact public safety.*

4.11-2 Conflict with a program, plan, ordinance, or policy addressing roadway, bicycle, and pedestrian facilities during operations. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed above, the shoulders along Waterman Road and Sheldon Road to the west of Waterman Road are currently striped as Class II Bicycle Lanes, and the Sheldon Road/Waterman Road intersection has recently improved the roundabout bicycle crossing. A new multi-use path was constructed as part of the existing subdivision in the southwest corner of the project. The City of Elk Grove BPTMP and Rural Road Policy and Improvement Standards include a planned Class I multi-use path along Waterman Road that could be used for pedestrian access that will connect to the existing sidewalks on Bond Road and Calvine Road. Such connections are dependent upon future Project development. The most immediate connection would be an at-grade crossing at Elliott Springs Drive at the southwest corner of the site to access the existing off-street trails on the north side of Elliott Springs Drive and west side of Waterman Road. The connection would provide access to Calvine Road and Bond Road. Other improvements are not planned to be implemented in the short-term. The Rural Road Improvement Policy and Standards also include planned bike lanes along Sheldon Road within the Rural Residential area of the City. However, sidewalks are not planned as part of any future development projects along Sheldon Road near the site. In addition, the BPTMP and the Rural Road Policy and Improvement Standards include planned Class II Buffered Bicycle lanes on Waterman Road along

the Project frontage and Class I Multi-Use Path along Sheldon Road between Elk Grove Florin Road and Waterman Road.

Table 4.11-6 summarizes the Bicycle and Pedestrian Streetscore LTS with the addition of the Project on Sheldon Road and Waterman Road. As shown therein, the LTS would remain unchanged with the addition of the Project. The LTS score is due primarily to the travel speed and lack of bicycle infrastructure or pedestrian facilities on Sheldon Road and Waterman Road.

Table 4.11-6
Bicycle and Pedestrian Streetscore LTS – Existing and Existing Plus Project

Roadway	Segment	Bicycle LTS		Pedestrian LTS	
		Existing	Existing Plus Project	Existing	Existing Plus Project
Sheldon Road	Waterman Road to Bradshaw Road	4	4	4	4
	Waterman Road to Elk Grove Florin Road	4	4	4	4
Waterman Road	Sheldon Road to Calvine Road	4	4	4	4
	Sheldon Road to Bond Road	3	3	4	4

Source: Fehr & Peers, 2025.

The Project would not include components that would adversely affect existing pedestrian or bicycle facilities. The internal roadways associated with the Project would include bicycle and pedestrian infrastructure in compliance with the City's Improvement Standards and would ensure adequate and safe access for pedestrians within the Project. In addition, the Project would include a Class I Multi-Use Path along the Project frontage parallel to Waterman Road. However, the Project does not currently propose any off-site bicycle or pedestrian facilities, and the Project would add bicycle and pedestrian trips to existing roadways that do not have adequate facilities. Thus, given the number of residents that would be generated as part of the Project and the lack of any planned off-site bicycle or pedestrian facilities, the Project would conflict with General Plan Policy MOB-3-1, which requires a balanced transportation system that ensures the safety and mobility of all users (including pedestrians, cyclists, and equestrian users, as appropriate), and General Plan Policy MOB-3-7, which requires development of a complete and connected network of sidewalks, crossings, paths, and bike lanes.

All off-site improvements would primarily occur within already disturbed areas and would be temporary during construction activities only. In addition, the proposed roundabout improvements would be constructed in accordance with EGMC requirements and the City of Elk Grove Improvement Standards and Design Guidelines. Thus, once constructed, the off-site improvements would not conflict with existing or planned pedestrian or bicycle facilities within the Project area.

Based on the above, the Project could conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian and bicycle facilities during operations. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

4.11-2 As part of approval of subsequent development plans, the City shall condition the future Tentative Map(s) to include the following pedestrian and bicycle facility infrastructure:

- *The Project shall construct Class II bicycle facilities along the Project frontage on Sheldon Road between Waterman Road and Bradshaw Road.*
- *The Project shall construct a Class I multi-use path along the Project frontage on Sheldon Road between Waterman Road and Bradshaw Road.*
- *The Project shall contribute to the planned development of the Class I multi-use path along Waterman Road between Bond Road and Calvine Road and along Sheldon Road between Elk Grove Florin and Waterman Road.*

Completing gaps in the bicycle system could be addressed through the City's Active Transportation impact fee program or, alternatively, through a standalone in-lieu fee analysis to determine the Project's responsibility for funding system improvements in the surrounding area.

4.11-3 Conflict with a program, plan, ordinance, or policy addressing transit facilities and services during operations. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The Project would not eliminate or adversely affect existing transit access, as service is not currently provided in the immediate Project vicinity. Additionally, the Project would not interfere with the implementation of any planned transit facilities in the Project vicinity. Although the SacRT provides SmaRT Ride (now SacRT Flex) in the Project area, according to Fehr & Peers, the service may not be adequate. The lack of any existing or planned fixed-route bus service to the area would lead to an unmet demand for transit service.

General Plan Policies MOB-5-1 and MOB-5-8 include requirements intended to provide a robust transit service within the City. Specifically, MOB-5-8 requires that transit services are enhanced throughout the City in a manner that ensures frequent, reliable, timely, cost-effective, and responsive service to meet the City's needs. Development of the Project would not cause an inconsistency with the aforementioned policies, as the policies are generally intended to guide City-wide development patterns, and the Project would not hinder further the provision of such transit services. However, because the Project as currently proposed would not include the provision

of any new transit facilities, which would lead to an unmet demand for transit service from future residents, the Project as currently proposed would not specifically contribute to a robust transit system.

Based on the above, the Project would conflict with adopted policies, plans, or programs supporting transit facilities. Thus, the project would result in a ***significant*** impact to transit facilities.

Mitigation Measure(s)

As discussed below under Impact 4.11-4, in order to reduce VMT associated with the Project, the Project applicant may choose to coordinate with the City to create a Communities Facilities District (CFD) to fund transit improvements, or deposit a sum money, as determined by the City, to fund the Project's fair share portion of these costs. Such funding would, in part, address the extension of service of transit to the Project, consistent with City policy. Therefore, Mitigation Measure 4.11-3(a) is applied to the Project with respect to reducing impacts related to transit.

Implementation of Mitigation Measure 4.11-3(b) would reduce significant impacts associated with transit facilities by contributing funds towards constructing physical infrastructure to support transit service, such as bus shelters. The City already collects a Capital Facilities Fee for such transit infrastructure, which would be applicable to the Project. Based on the above, implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

4.11-3(a) *Implement Mitigation Measure 4.11-4.*

4.11-3(b) *Any subsequent Tentative Subdivision Map shall be conditioned to construct one or more bus stops with shelters within the Project for access to transit services. Such facilities shall be constructed as part of the corresponding civil improvement plans.*

The Project applicant shall pay the City's Capital Facilities Fee for Transit, which shall fund new transit shelters, a portion of the cost for extension of Light Rail/Bus Rapid Transit to Elk Grove, and other transit improvements in the community and at the site. The fee shall be paid, consistent with the provisions of the adopted Nexus Study, in conjunction with building permit issuance or final occupancy, consistent with State law. Any credits or reimbursement eligible to the Project as a result of construction of these facilities shall be provided consistent with the Nexus Study and applicable City policies.

4.11-4 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below, even with mitigation, the impact is *significant and unavoidable*.

As discussed above, Fehr & Peers determined that under 2020 conditions, the Citywide limit of total daily VMT is 8,066,247 VMT, and the City's VMT per service

population limit for the LDR land use, with the 15 percent reduction in total VMT from the 2020 baseline incorporated, is 19.3 VMT per service population.

The Project's VMT performance was analyzed in a comprehensive manner that considered the Project's relative VMT efficiency per service population. The Project's VMT per service population was estimated by adding the Project to the cumulative General Plan Buildout scenario using the methodology described above. Table 4.11-7 summarizes the Project's VMT per service population for the proposed LDR land use. As shown in the table, the Project would exceed the VMT limit by 7.3 percent, likely due to the site location and the lack of proximity to destinations.

Table 4.11-7
VMT Performance by Land Use

Land Use Designation	VMT Per Service Population for Low Density Residential
VMT Limit	19.3
VMT with Project	20.7
Difference	+7.3 Percent

Notes:
Calculated using EGSIM20.
VMT Limit is 85 percent of average base year VMT per service population by land use.

Source: Fehr & Peers, 2025.

In addition, the City of Elk Grove uses VMT performance targets by General Plan land use category and VMT limits for the City and Study Areas to evaluate cumulative VMT impacts. The site is within the City Limits and is not located within a specific Study Area. Table 4.11-8 summarizes the total daily VMT generated within the City Limits at cumulative General Plan Buildout with and without the Project. As shown in the table, the total daily VMT generated by the City of Elk Grove with the Project would exceed the cumulative General Plan Buildout VMT limit by 0.07 percent.

Table 4.11-8
VMT Performance by Study Area

Land Use Designation	Daily Total VMT Generated by the City of Elk Grove Limits
VMT Limit	8,066,247
VMT with Project	8,071,967
Difference	+0.07 Percent

Notes:
Calculated using EGSIM20.
VMT Limit is Total Daily VMT generated within the City Limits, pursuant to the most recent version of the General Plan land use designations from October 2023.

Source: Fehr & Peers, 2025.

Based on the above, the Project would result in VMT in excess of the applicable thresholds of significance. Therefore, the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and a ***significant*** impact could occur.

Mitigation Measure(s)

In order to reduce VMT associated with the Project to below the applicable thresholds of significance, the Project would be required to achieve a 7.3 percent reduction in VMT per service population and a 0.07 percent reduction in total VMT within the City Limits. The City of Elk Grove Transportation Analysis Guidelines identifies the following five categories of VMT reduction:

1. Category A – Land Use/Location;
2. Category B – Site Enhancement;
3. Category C – Transit System Improvements;
4. Category D – Commute Trip Reductions; and
5. Category E – In-Lieu Fee.

Implementation of Transportation Demand Management (TDM) strategies can result in reductions to a project's vehicle trip generation based on certain types of site modifications, programming, and operational changes. The CAPCOA Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity (December 2021) identifies numerous TDM strategies and quantifies their potential vehicle trip reduction effects. While each strategy provides standalone VMT reduction potential, multiplicative dampening limits the VMT reduction potential in instances where multiple strategies are implemented together.

Consistent with the City of Elk Grove Transportation Analysis Guidelines categories of VMT reduction, the Transportation Analysis Report identifies the following potential TDM strategies, including the associated VMT reduction potential, which represents raw VMT reduction percentages without adjustments for multiplicative dampening and/or category maximums:

1. **Category A – Land Use/Location**

    a. **Increase Residential Density (CAPCOA Handbook Strategy T-1)**: This measure accounts for the VMT reduction achieved by a Project that is designed with a higher density of dwelling units compared to the average residential density in the United States (9.1 dwelling units per acre [du/ac]). Increased densities affect the distance people travel and provide greater options for the mode of travel they choose. Increasing residential density results in shorter and fewer trips by single-occupancy vehicles. This measure is best quantified when applied to larger developments and developments where the density is somewhat similar to the surrounding area due to the underlying research being founded in data from the neighborhood level.

    The Project would have a density of approximately seven du/ac. By increasing the density by one du/ac, a reduction of approximately 3.14 percent in residential VMT can be achieved, up to a maximum reduction of 30 percent. However, if the density exceeds seven du/ac, the Project would not qualify as a LDR development. Consequently, the VMT per capita limit would then be compared against the VMT per capita limit for MDR developments, which is 17.9. In addition, increasing the

residential density of the Project would result in additional impacts related to air quality, GHG, and energy, population and housing, operational noise, and demand for public services and utilities due to the increased number of residential units and population. As such, CAPCOA Strategy T-1 has been dismissed as a potential feasible VMT reduction strategy.

2. Category B – Site Enhancement

a. **Provide Pedestrian Network Improvement (CAPCOA Handbook Strategy T-18)**: This measure would increase the sidewalk coverage to improve pedestrian access. Providing sidewalks and an enhanced pedestrian network would encourage people to walk instead of drive. This mode shift would result in a reduction in VMT and GHG emissions. The 'study area' should be based on a one-kilometer (approximately 0.6-mile) buffer around the area where the pedestrian network is being improved. The VMT reduction is limited to household VMT.

Approximately 9.6 miles of sidewalks exist within the one-kilometer buffer around the site. By adding one mile of sidewalk along the Project frontage, the Project could achieve up to 0.5 percent VMT reduction. However, because few destinations are located within walking distance of the site, the actual VMT reduction is uncertain and could be lower than the estimated 0.5 percent.

This measure would not be feasible on a Project-level to significantly reduce VMT because the extent of the improvements would be limited to the immediate Project area and the relevant services and destinations are more than one mile from the site. The Project would be required to contribute to a CFD, as discussed under Category E, to fund pedestrian network improvements, which could lead to improvements in VMT across the City.

b. **Construct or Improve Bicycle Facility (CAPCOA Handbook Strategy T-19-A)**: This measure would construct or improve a single bicycle facility that connects to a larger existing bikeway network. Providing bicycle infrastructure helps to improve biking conditions within an area, which encourages a mode shift on the roadway parallel to the bicycle facility from vehicles to bicycles, displacing VMT. A maximum of 0.06 percent reduction of VMT could be achieved in the Project location by adding more than two miles of Class I or Class IV bicycle facility.

This measure would not be feasible on a Project-level to significantly reduce VMT because the extent of the improvements would be limited to the immediate Project area and additional connections would be required off-site to the Project and of a distance from the Project that they may not be of sufficient attraction to users to generate VMT reductions; however, the Project would be required to contribute to a

CFD, as discussed under Category E, to fund bicycle facility improvements that could lead to improvements in VMT across the City.

3. **Category C – Transit System Improvements**

    a. **Extend Transit Network Coverage or Hours (CAPCOA Handbook Strategy T-25)**: This measure would expand the local transit network by either adding or modifying existing transit service or extending the operation hours to enhance the service near the site. Starting services earlier in the morning and/or extending services to late-night hours could accommodate the commuting times of alternative-shift workers. The expansion of transit services would encourage the use of transit, and, therefore reduce VMT and associated GHG emissions. A 0.12 percent VMT reduction would occur for every 10 percent increase in total transit service miles or service hours in plan/community area.

    To implement this measure, the Project would work with SacRT to facilitate expansion of transit services for the Project. This measure is not, individually, feasible, as SacRT has been modifying their system approach and is undertaking a comprehensive operational analysis that may not result in expansion of services in geographies such as the Project. Prior efforts, such as the SmaRT zone, are currently being modified into a new shared-use mobility solution (SacRT Flex). Given the long-term operational changes, traditional transit service expansion may not be feasible.

    Instead, the Project would be required under Mitigation Measure 4.11-4 to contribute to a CFD, as discussed under Category E, to fund and implement necessary improvements to transit stop amenities (i.e., shelters) near the site to ensure that transit stops are adequate to accommodate new transit riders generated by the Project.

4. **Category D – Commute Trip Reductions**

    a. **Community-Based Travel Planning (CAPCOA Handbook Strategy T-23)**: This measure would target residences in the plan/community with community-based travel planning (CBTP). CBTP is a residential-based approach to outreach that provides households with customized information, incentives, and support to encourage the use of transportation alternatives in place of single occupancy vehicles, thereby reducing household VMT and associated GHG emissions.

    The Project would be required to contribute to a CFD, as discussed under Category E, that would provide community-based travel planning and assistance. A 0.23 percent VMT reduction would occur for every 10 percent increase in residences in plan/community targeted with CBTP.

5. Category E – In-Lieu Fee

a. **Create CFD**: A CFD is a Special Tax District provided in State Law that funds the installation of public improvements or ongoing services within an identified area. A Special Tax is levied on taxable property within the district boundaries. Revenue received from the special tax is used to fund the CFD's authorized public facilities and or services. Creating a CFD can help fund ongoing transportation needs such as on-demand transit services, educational services, operation and maintenance of active transportation facilities. CFD would help reduce VMT by providing community-based travel planning and on-demand transit services. Pursuant to Mitigation Measure 4.11-4, if the property owner(s) fails to approve an annual CFD special tax, payment of an in-lieu fee would be required to the City.

Implementation of Mitigation Measure 4.11-4 would reduce VMT associated with the Project by implementing TDM strategies to reduce external vehicle trips generated by residents of the Project. However, the effectiveness of the TDM strategies cannot be quantified at this time and subsequent vehicle trip reduction effects cannot be guaranteed. Existing evidence indicates that the effectiveness of TDM strategies with regards to vehicle trip reduction can vary based on a variety of factors, including the context of the surrounding built environment (e.g., urban versus suburban) and the aggregate effect of multiple TDM strategies deployed together. Moreover, many TDM strategies are not just site specific, but also rely on implementation and/or adoption by private entities (e.g., elective use of carpool program by residents) and other agencies (e.g., transit service operators). Even if implemented, whether the TDM strategies would be able to sufficiently reduce VMT generated by the Project to levels below the thresholds of significance is uncertain. Due to uncertainties regarding the ability for the aforementioned mitigation measures to reduce VMT impacts to less-than-significant levels, VMT impacts of the Project would be considered to remain *significant and unavoidable*.

4.11-4 *Prior to the recordation of the first Final Map, the property owner(s) shall: (1) approve (a) the formation of a new or annexation into an existing community facilities district (CFD) and (b) an annual CFD special tax; or (2) deposit a sum money, as determined by the City, to fund the Project's fair share portion of the costs of providing pedestrian and bicycle facility improvements, transit services and infrastructure, and community based travel planning (CBTP) and assistance. The funds may go towards education services, improvement or extension of transit services or additional on-demand transit, or physical improvement and maintenance for pedestrian and bicycle infrastructure and programs. The CFD funds may be used to fund and implement necessary improvements to transit stop amenities (i.e., shelters) near the Project to ensure transit stops are adequate to accommodate new transit riders generated by the Project. Proof of compliance shall be submitted to the City of Elk Grove Community Development Department for review and approval.*

Any costs for the formation of the new or annexation into an existing CFD, and approval of such annual CFD special taxes, or administration of the sum of money deposited to fund the City's costs of providing pedestrian and bicycle facility improvements, transit services, or CBTP, shall be paid from the annual CFD special taxes or the sum of money deposited with the City. If the property owner(s) fails to approve an annual CFD special tax or deposit a sum of money as provided for herein for such purposes for the City, no building permits shall be issued and no Final Map shall be recorded.

4.11-5 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access. Based on the analysis below, the impact is *less than significant*.

A discussion of potential hazards related to geometric design features and emergency access/vehicle circulation is provided below. All off-site improvements would primarily occur within already disturbed areas and would be temporary during construction activities only. Thus, once constructed, the off-site improvements would not increase hazards or result in inadequate emergency access.

Geometric Design Features and Incompatible Uses

While the Project would include expansion of existing off-site roadways and would provide connections to Sheldon Road and Waterman Road, the Project would not include development of new off-site roadways. The Project would be constructed in accordance with the City of Elk Grove Improvement Standards and Design Guidelines to ensure that the SPA and future development entitlements public right-of-way and private street improvements are designed to meet or exceed uniform levels of sound engineering practice.[8,9] The design criteria address speed, sight distance, minimum and maximum roadway grade, minimum curve radius, and lighting. As part of general engineering practice, all roadway facilities would also be designed to meet applicable industry standards from the Caltrans Highway Design Manual (HDM), the California Manual on Uniform Traffic Control Devices (CAMUTCD), and The American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets. Each development application would be subject to review and approval by the City, including the Fire District operated by the Cosumnes Community Services District (CCSD), which would include a review of the Project's consistency with the City's design criteria to ensure safe vehicle access is provided, including for emergency vehicles.

Because specific development is not currently proposed, details on the types of intersection control at the proposed gated entries is currently unknown. Once specific development proposals come forward, the Project access points would be analyzed to include appropriate intersection control to minimize conflicting movements and discourage unsafe maneuver. Appropriate site distance and storage capacity shall be

[8] City of Elk Grove. *Improvement Standards*. Amended May 28, 2024.
[9] City of Elk Grove. *Citywide Design Guidelines*. October 2021.

provided at intersections. The distance of entries from the major intersection of Sheldon Road and Waterman Road shall also be analyzed for safe queuing and sight distance. For future development within the SPA, the City would ensure consistency with the City of Elk Grove Improvement Standards, including the geometric design at intersections, as part of future development entitlement processing.

With respect to potential incompatible uses, the surrounding area is designated for Estate Residential (ER) and Rural Residential (RR) uses. While the surrounding residential uses are zoned Agricultural Residential (AR), active farming operations involving heavy equipment, such as tractors, do not currently occur in the vicinity of the site. Thus, heavy farm equipment would not be expected to use Waterman Road or Sheldon Road near the entries to the site. The Project would not introduce incompatible uses, such as farm equipment or heavy-duty truck traffic, to area roadways during operations.

Therefore, a less-than-significant impact would occur related to increased hazards due to design features or incompatible uses.

Site Access and Circulation

Several factors determine whether a project has sufficient access for emergency vehicles, including the following:

1. Number of access points (both public and emergency access only);
2. Width of access points; and
3. Width of internal roadways.

Access to the site could be provided from three gated entries at Sheldon Road and one on Waterman Road. The entries would also serve as primary emergency access routes for the active adult community.

The CCSD operates the Fire District, which provides fire and emergency medical service to the City of Elk Grove and City of Galt. The nearest Cosumnes Fire District stations are Station 73 and Station 76, which are located approximately 1.3 and 1.9 miles from the site, respectively. The Cosumnes Fire District maintains minimum requirements for emergency access, which include minimum roadway width and turning radius for fire apparatus. All internal roadways would be designed to meet such standards. Each subdivision and building permit application would be subject to review and approval by the City and Cosumnes Fire District to ensure specific roadway design and access standards are met. The CCSD will review the Project's proposed circulation plan to ensure adequate access is provided throughout the entire plan area during the entitlement stages. Required review would ensure that the proposed circulation system for the site would provide adequate emergency access. Thus, Project would not alter the circulation network of the other local roadways or otherwise prevent emergency vehicle access or evacuation, and a less-than-significant impact would occur.

Conclusion

Based on the above, the Project would not substantially increase hazards due to a geometric design feature or incompatible uses, or result in inadequate emergency access, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

For further detail related to the cumulative setting of the Project, refer to Chapter 6, Statutorily Required Sections, of this EIR.

It should be noted that increased traffic volumes on local roadway facilities under cumulative conditions would not substantially alter performance related to bicycle facilities, pedestrian facilities, transit facilities and services, and emergency vehicle access. Rather, impacts to such facilities under Cumulative Plus Project conditions would be similar to those discussed above under Impacts 4.11-1, 4.11-2, 4.11-3, and 4.11-5. In addition, construction activities are short-term and would be specific to the Project. Therefore, construction activities associated with the Project would be complete prior to the cumulative analysis year and potential impacts would not combine with other projects to result in cumulative impacts. Therefore, such topics are not discussed further in the cumulative analysis presented herein.

Similarly, the City-wide VMT impact analysis for buildout of the Project included under Impact 4.11-4 would also apply to Cumulative Plus Project conditions. The City Limit VMT significance threshold compares project-generated residential total daily VMT generated within the City Limits to that of existing City-wide development. The VMT comparison is useful because the comparison provides information regarding how a project aligns with long-term environmental goals related to VMT established based on existing development levels. Use of VMT significance thresholds based on existing development levels is recommended in the LCI Technical Advisory. The Technical Advisory indicates that VMT efficiency metrics, such as VMT per service population, may not be appropriate for CEQA cumulative analysis because they employ a denominator. Instead, the Technical Advisory recommends that an impact finding from an efficiency-based project-specific VMT analysis (i.e., Existing Plus Project conditions) would imply an identical impact finding for a cumulative VMT analysis.[10] An example provided by LCI explains that a project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Therefore, a separate analysis of VMT is not presented in this cumulative analysis section as the cumulative analysis of VMT is already sufficiently included in the analysis presented under Impact 4.11-4 above.

[10] Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA* [pg. 6]. December 2018.

5. Effects Not Found to be Significant

5. EFFECTS NOT FOUND TO BE SIGNIFICANT

5.1 INTRODUCTION

Section 15128 of the California Environmental Quality Act (CEQA) Guidelines requires that an EIR briefly describe the reasons why various environmental effects were determined not to be significant and, therefore, were not discussed in detail in the EIR. The Effects Not Found to be Significant chapter of this EIR summarizes environmental issues that were determined not to be significant with implementation of the Project. The reasons for the conclusion of non-significance are provided for each issue area, as applicable, below.

5.2 AESTHETICS

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue areas:

- Have a substantial adverse effect on a scenic vista; and
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.

Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact on a scenic vista would occur if development of the project would substantially change or remove a scenic vista. The City's General Plan EIR does not identify officially designated scenic vistas within the City. Therefore, the Project would not have a substantial adverse effect on a scenic vista.

Consistent with Appendix G of the CEQA Guidelines, a project's impact to scenic resources within a State scenic highway requires that such resources are viewable from an officially designated State scenic highway within the project's vicinity. State scenic highways do not exist within the City. State Route (SR) 160 is designated as a scenic highway from the Contra Costa County line to the southern City of Sacramento limit, for a length of 35 miles. However, the aforementioned portion of SR 160 is located approximately 8.31 miles west of the site. Due to the substantial distance between the nearest designated State scenic highway and the site, the Project would not damage any scenic resources within a State scenic highway.

5.3 AGRICULTURAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue areas:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;

- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]);
- Result in the loss of forest land or conversion of forest land to non-forest use;
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use.

The site is currently developed with a single-unit residence with accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries centrally run from the northern boundary of the site to the southern boundary of the site. According to the California Department of Conservation's (DOC's) California Important Farmland Finder, the eastern portion of the site is designated as "Farmland of Local Importance," which is defined as "Land of importance to the local agricultural economy as determined by each County's Board of Supervisors and a local advisory committee." Other portions of the site are designated as "Grazing Land" and "Other Land".[1] Although the eastern portion of the site is considered to be Farmland, the designation of Farmland of Local Importance is not protected under CEQA. In addition, the site is not currently used for agricultural purposes. Thus, implementation of the Project would not result in conflicts with the Farmland Protection Policy Act. In addition, the site is not under a Williamson Act contract.

With respect to the issue area regarding existing zoning for agricultural use, the site is currently zoned Agricultural Residential-Two Acre Minimum (AR-2). The AR-2 zoning designation allows for animal keeping and raising, equestrian uses, and agriculture opportunities in addition to low density single-unit residence and limited commercial uses. The Project would require approval of a General Plan/Rural Area Community Plan Amendment and a Rezone to allow for the creation of the 115.9-acre Summer Villas Special Planning Area (SPA). If the General Plan/Rural Area Community Plan Amendment and Rezone are approved by City Council, the Summer Villas SPA would function as a special purpose zoning district under Chapter 23.40 of the Zoning Code.

As part of the Rezone, the Project would be required to adhere to the development standards set forth by the City of Elk Grove General Plan, Municipal Code, Title 23, and Summer Villas SPA, which would be subject to a City determination. The Project is a discretionary action of the Elk Grove City Council. Should the City Council deny the Project, the existing conditions on-site would remain and a conflict with the existing zoning for agricultural use would not occur. However, should the City Council approve the Project, the requested Rezone to SPA would be approved concurrently and a conflict with existing zoning for agricultural use also would not occur. Thus, implementation of the Project would not result in conflicts with existing zoning for agricultural use.

Similarly, the site is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). Furthermore, installation of the proposed off-site roadway and utility improvements would occur either in existing roadway rights-of-way (ROWs) or in other previously disturbed areas.

[1] California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed May 2025.

Based on the above, implementation of the Project would not result in conflicts with the Farmland Protection Policy Act, conflict with existing zoning for agricultural use or a Williamson Act contract, or conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland, or result in the loss of forest land or conversion of forest land to non-forest use. Therefore, the Project would result in no impact.

5.4 BIOLOGICAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue area:

- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan.

Sacramento County, the City of Rancho Cordova, the City of Galt, and other local partners have adopted the South Sacramento Habitat Conservation Plan (SSHCP). However, the City of Elk Grove does not participate in the SSHCP and the site is not within the SSHCP area. In addition, this EIR includes mitigation measures to address potential impacts to species which are covered by the SSHCP, including vernal pool fairy shrimp, vernal pool tadpole shrimp, western spadefoot, western pond turtle, western red bat, American badger, tricolored blackbird, white-tailed kite, burrowing owl, Swainson's hawk, and northern harrier. The mitigation measures included herein generally do not conflict with the avoidance and minimization measures included in Chapter 5 of the SSHCP. Furthermore, the site is not within the primary or secondary zones of the Sacramento-San Joaquin Delta, nor does the site support critical habitat for any federally listed species. Therefore, the Project would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

5.5 GEOLOGY AND SOILS

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue area:

- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Sanitary sewer service for the Project would be provided by the Sacramento Area Sewer District (SacSewer). Based on the SacSewer 2020 System Capacity Plan, the site is located within the BR Bond Sheldon Trunk Shed, which encompasses the rural residential Sheldon area in which the site is located. The Project would include provision of public sewer services through the construction of an on-site sewer lift station and corresponding off-site sewer force main, which would discharge to an existing SacSewer gravity sewer network with sufficient residual capacity to support the Project. The on-site sewer pipeline network would consist of eight-inch sewer lines located under the proposed roadway network within a dedicated easement and would ultimately outfall to the proposed on-site lift station. In addition, the Project would be required to construct approximately 6,500 linear feet of off-site four- to six-inch diameter force main in Sheldon Road and Elk Grove Florin Road to support the Project. Thus, the construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the Project. Therefore, no impact regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.

5.6 HAZARDS AND HAZARDOUS MATERIALS

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue areas:

- 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 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; and
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires.

The Project is not located within one quarter mile of an existing or proposed school. The nearest school relative to the site is Pleasanton Grove High School/Katherine Albiani Middle School, which is located approximately 0.46-mile southeast of the Site. Therefore, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and no impact would occur.

According to the Phase I Environmental Site Assessment (ESA) prepared for the Project by Pinnacle Environmental, Inc. (see Appendix G),[2] the site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the Project would not create a significant hazard to the public or the environment associated with being located on such a site, and impacts related to such would not occur.

The Project is not located within an airport land use plan or within two miles of a public airport, public use airport, or private airstrip. The nearest public use airport to the site is Mather Airport, located approximately 7.4 miles northeast of the site. According to the 2022 Airport Land Use Compatibility Plan (ALUCP) for Mather Airport, the site is not located within the Airport Influence Area (AIA). The nearest private airstrip is Sky Way Estates Airport CL04, located approximately six miles southeast of the site. Therefore, the Project would not result in a safety hazard for people residing or working in the Project area associated with an airport or airstrip.

The site is not located within a High or Very High Fire Hazard Severity Zone (FHSZ). The nearest High or Very High FHSZ relative to the site is located approximately 3.31 miles northeast. In addition, the site is surrounded by existing and planned development which would serve as a fire break to decrease fire risks. As such, the Project would not create a significant impact related to exposing people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires. Therefore, the Project would not create a significant hazard to the public or the environment associated with being located on such site.

5.7 MINERAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue areas:

[2] Pinnacle Environmental, Inc. *Phase I Environmental Site Assessment*. June 7, 2024.

- Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state; and
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

According to the City of Elk Grove General Plan, mineral deposits and mineral extraction activities are not located within the General Plan planning area as defined by the City of Elk Grove General Plan. Therefore, development of the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State or in the loss of availability of a locally important mineral resource recovery site.

5.8 NOISE

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue area:

- For a Project located within the vicinity of a private airstrip or 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, exposure of people residing or working in the Project area to excessive noise levels.

As discussed above, the Project is not located within the vicinity of a private airstrip, an airport land use plan, or two miles of a public airport or public use airport. The nearest airport relative to the site is the Sky Way Estates Airport CL04, located approximately six miles southeast of the site. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels associated with airports.

5.9 WILDFIRE

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue area:

- If located in or near state responsibility areas (SRAs) or lands classified as Very High FHSZs:
    - Substantially impair an adopted emergency response plan or emergency evacuation plan;
    - Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
    - Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or
    - Expose people or structures to significant risks, including downslope or downstream flooding, or landslides, as a result of the runoff, post-fire slope instability, or drainage changes.

The site is located within a Local Responsibility Area (LRA) and is not within an SRA. As previously discussed, the site is not located near or within a High or Very High FHSZ. The nearest High or Very high FHSZ to the site is located approximately 3.31 miles northeast, which is

separated from the site with intervening development. Such existing development in the area, particularly in the vicinity of the site, serves as a fire break to decrease fire risks at the site. Therefore, the Project would result in no impact related to wildfire.

Impacts related to impairing implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan are addressed in the Hazards and Hazardous Materials chapter of this EIR, under Impact 4.6-3. As discussed therein, the Project, as designed, would not interfere with or impair implementation of an adopted emergency response plan or emergency evacuation plan. Impacts related to inadequate emergency access were determined to be less than significant under Impact 4.11-5 of Chapter 4.11, Transportation, of this EIR. In addition, the site does not feature steep or significant slopes and is generally flat. As such, the Project would not exacerbate fire risks or expose people or structures to risks due to a slope. Therefore, impacts related to exposing people or structures to significant risks related to downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes, would not occur.

6. Statutorily Required Sections

6. STATUTORILY REQUIRED SECTIONS

6.1 INTRODUCTION

The Statutorily Required Sections chapter of the Draft EIR includes discussions regarding those topics that are required to be included in an EIR, pursuant to CEQA Guidelines, Section 15126.2. The chapter includes a discussion of the Project's potential to result in growth-inducing impacts; the cumulative setting analyzed in this EIR; significant irreversible environmental changes; and significant and unavoidable impacts caused by the Project.

6.2 GROWTH-INDUCING IMPACTS

State CEQA Guidelines Section 15126.2(e) requires an EIR to evaluate the potential growth-inducing impacts of a proposed project. Specifically, an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, including the elimination of obstacles to growth, or by encouraging and/or facilitating other activities that could induce growth. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped.

The CEQA Guidelines are clear that, while an analysis of growth-inducing effects is required, growth in any area shall not be assumed to be necessarily beneficial, detrimental, or of little significance to the environment. The analysis included in this EIR examines the following potential growth-inducing impacts related to implementation of the Project and assesses whether these effects are significant and adverse (see CEQA Guidelines, Section 15126.2[e]):

1. Foster population and economic growth and construction of housing.
2. Eliminate obstacles to population growth.
3. Affect service levels, facility capacity, or infrastructure demand.
4. Encourage or facilitate other activities that could significantly affect the environment.

Foster Population and Economic Growth and Construction of Housing

As discussed in Chapter 4.8, Land Use and Planning/Population and Housing, of this EIR, the proposed 499 age-restricted single-residential unit homes would increase the available housing within the City of Elk Grove, which would be expected to increase population in the area. Using the 3.09 persons/household average household size for the City of Elk Grove, the Project would be anticipated to house an estimated 1,542 new residents. Because the units would be age-restricted, the average household size within the Special Planning Area (SPA) is anticipated to be less than the City average. The site is located within the City's Rural Area Community Plan and is designated as Rural Residential (RR). The SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) identifies the Rural Area Community Plan as a Rural Residential Community, located outside of established areas. The General Plan/Rural Area Community Plan Amendment and Rezone associated with the Project would result in 441 additional units as compared to what was anticipated for the site in the General Plan. The 441

additional units associated with the Project would exceed the anticipated housing unit growth from 2016 to 2040 in Rural Residential Communities, pursuant to the 2020 MTP/SCS. Thus, population growth resulting from the Project would not be within the SACOG or City of Elk Grove growth estimates for the Rural Area Community Plan. As a result, the Project would be considered to induce substantial unplanned population growth.

Future residents of the Project would likely support local business and services in the area, fostering economic growth. While the increase in population as a result of the Project could result in an increase in demand for goods and services in the surrounding area, it would be speculative to attempt to predict where and when any such new services would be developed, and whether or not existing and future planned commercial development would satisfy such demand created by the Project. While construction of the Project could result in increased employment opportunities in the construction field, such construction employment opportunities would be temporary, lasting only as long as construction of the Project, and likely filled by the local employee base. Therefore, an increase in permanent population and a demand for housing in the vicinity of the site as a result of the construction-related employment opportunities associated with the Project would not occur. Employment opportunities created by the Project could include household and landscape maintenance jobs, jobs associated with operation of the age-restricted residential community. In addition, the Project could generate jobs associated with the recreational uses and proposed clubhouse, which would include ancillary uses such as privately operated retail (i.e., coffee shop, café, etc.). New jobs generated by such uses would not be substantial in number and would also likely be filled by the local employee base. Therefore, the Project and any associated population growth, would not result in significant long-term economic growth in the area.

Appendix G of CEQA Guidelines has been recently amended to clarify that unplanned population growth would be considered a potentially significant impact. However, growth that is planned, and the environmental effects of which have been analyzed in connection with a land use plan or a regional plan, should not by itself be considered an impact. As discussed in further detail under Impact 4.8-3 within the Land Use and Planning/Population and Housing chapter of this EIR, the Project would result in population growth within the City of Elk Grove. While new infrastructure improvements would be sized to accommodate only the Project, improvements would include development that would result in direct on-site unplanned population growth. Population growth resulting from the Project would not be within the Sacramento Area Council of Governments (SACOG) or City of Elk Grove growth estimates for the project area. Thus, the Project would induce substantial unplanned population growth, and a significant impact related to population and economic growth would occur.

Eliminate Obstacles to Population Growth

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services, would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

As discussed in Chapter 4.10, Public Services and Utilities, of this EIR, the existing Sacramento County Water Agency (SCWA) and Elk Grove Water District (EGWD) water system would be utilized to connect new water lines to the Project. According to SCWA and EGWD, several off-

site improvements would be required to connect the site with existing water lines. Off-site improvements are discussed in further detail in Chapter 3, Project Description, of this EIR, and would include a new connection between two 18-inch stubs in Waterman Road and a new 24-inch transmission main in Sheldon Road that would be required to provide the necessary looped system to service the Project. In addition, to provide a looped system for the east side of the site, an additional water line crossing Laguna Creek would be provided on-site. The transmission main and additional waterline could cross Laguna Creek by either boring and jacking the lines under Laguna Creek or attaching the lines to the existing Sheldon Road Bridge. In the immediate Project vicinity, existing water lines would connect to new water lines that extend into the site within either the existing road right-of-way (ROW) or in areas proposed for disturbance as part of development of the Project.

Sanitary sewer service would be provided by the Sacramento Area Sewer District (SacSewer) through new connections to the existing sewer system in the site vicinity. The Project would construct approximately 6,500 linear feet of off-site four- to six-inch force main in Sheldon Road and Elk Grove Florin Road. Sewer service for the site would be provided through a new on-site lift station and corresponding off-site force main. The on-site sewer pipeline network would consist of eight-inch sewer lines located under the proposed roadway network within a dedicated easement, and would ultimately outfall to the proposed on-site lift station. Because the developable areas of the site are bisected by Laguna Creek, the gravity system on the east side of the site would require a bore and jack installation under Laguna Creek to achieve outfall to the lift station. Installation of the new wastewater conveyance infrastructure would occur either in existing road ROWs or in areas proposed for disturbance as part of development of the Project.

The improved water and wastewater systems would be designed consistent with the applicable standards and specifications, ensuring that the new infrastructure is constructed in conformance with proper materials and sizing to accommodate the increased demand from the future development of the Summer Villas SPA. In addition, the City's General Plan prohibits connection of the aforementioned water and wastewater systems to areas within the Rural Area Community Plan adjacent to the site. Any such connection to City services would be subject to approval of a General Plan/Rural Area Community Plan Amendment. The proposed water and wastewater improvements would be financed by the Project Applicant. The improvements are intended to connect the site to existing infrastructure in order to provide service to the Project and are not anticipated or intended to serve any other areas or projects. However, because the ultimate design of the infrastructure improvements has not been determined at this time, the potential exists for such improvements to be sized such that they could accommodate additional demand beyond that of the Project only, which could potentially foster unplanned population growth in the area. Consequently, the construction of off-site utilities infrastructure could result in the elimination of obstacles to population growth in the area.

The Project would also require off-site improvements to the existing roundabouts at the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road intersections. The existing roundabouts are sized to accommodate traffic volumes generated by buildout of the City's General Plan. Improvements would be made to accommodate the increased traffic volumes generated as a result of the Project, beyond what was anticipated in the Circulation Element of the General Plan. Therefore, the roundabouts are specifically needed to accommodate the increase in traffic due to the Project; and would not in and of themselves induce any growth. In addition, the proposed roundabout improvements would be constructed in accordance with Elk Grove Municipal Code (EGMC) requirements and the City of Elk Grove Improvement Standards and Design Guidelines.

Because implementation of the anticipated water and sewer improvements could potentially foster unplanned population growth in the area, such improvements could be considered to eliminate obstacles to growth in a manner that would encourage previously unplanned growth.

Affect Service Levels, Facility Capacity, or Infrastructure Demand

Increases in population that would occur as a result of a project may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental impacts. As discussed in Chapter 4.10, Public Services and Utilities, of this EIR, increased demands for public services, such as fire and police protection services, would be provided to the Project by the Consumnes Community Service District (CCSD) and Elk Grove Police Department (EGPD), respectively. Although implementation of the Project would increase the number of structures protected by local fire protection services, CCSD has confirmed implementation of required fire protection measures and payment of required fees would ensure the Project's potential impacts on fire protection services would be less than significant. In addition, the EGPD has indicated that new or physically altered law enforcement facilities would not be needed to adequately serve the Project. Furthermore, pursuant to EGMC Chapter 16.95, all new development projects, including the Project, would be required to pay a Fire Fee and a Capital Facilities Fee. Payment of such fees would reduce any potential impacts related to emergency service facilities. In addition, as discussed in Chapter 4.10, Public Services and Utilities, of this EIR, wastewater generated by the Project is anticipated to be accommodated by existing wastewater treatment facilities and infrastructure at the Sacramento Regional Wastewater Treatment Plant (SRWTP), and with the installation of the proposed on-site lift station and on-/off-site force main, adequate transmission capacity exists for the project's sanitary sewer flows. In addition, new connections to existing water supply infrastructure provided by the SCWA and EGWD would accommodate the domestic and fire-flow demands associated with the Project.

The landfills that would serve the Project have adequate capacity to manage the solid waste generated as a result of the Project, as described Chapter 4.10, Public Services and Utilities, of this EIR. Furthermore, mitigation measures set forth in Chapter 4.7, Hydrology and Water Quality, of this EIR would ensure that the Project would not create or contribute runoff water that would exceed the capacity of the City's stormwater drainage systems. Therefore, the Project would not increase population such that service levels, facility capacity, or infrastructure demand would require construction of new facilities that could cause significant environmental impacts.

Encourage or Facilitate other Activities That Could Significantly Affect the Environment

This EIR provides a comprehensive assessment of the potential for environmental impact associated with implementation of the Project. Please refer to Chapters 4.1 through 4.11 of this EIR, which comprehensively address the potential for impacts from urban development on the site. As discussed above, the Project would include off-site improvements to utilities and roundabouts in the surrounding area. The City's General Plan prohibits connection of the proposed water and wastewater systems to areas within the Rural Area Community Plan adjacent to the site. Any such connection to City services would be subject to approval of a General Plan/Rural Area Community Plan Amendment. In addition, the proposed utility and roundabout approvements would be sized to serve only the increased demand from the future development of the Summer Villas SPA. While the Project could encourage future development in the area, any associated connections to water or sewer services would be subject to approval of a General Plan/Rural Area Community Plan Amendment. Furthermore, it would be speculative to attempt to predict where and how much future development could occur as a direct result of the Project.

Therefore, the Project would not encourage or facilitate other activities that could significantly affect the environment.

6.3 CUMULATIVE IMPACTS

CEQA Guidelines, Section 15130 requires that an EIR discuss the cumulative and long-term effects of the Project that would adversely affect the environment. "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines, Section 15355). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects" (CEQA Guidelines, Section 15355, subd. [a]). "The cumulative impact from several projects is 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" (CEQA Guidelines, Section 15355, subd. [b]).

The need for cumulative impact assessment reflects the fact that, although a project may cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the increment may be "cumulatively considerable," and, thus, significant, when viewed together with environmental changes anticipated from past, present, and probable future projects (CEQA Guidelines, Section 15064, subd. [h(1)], Section 15065, subd. [c], and Section 15355, subd. [b]). Accordingly, particular impacts may be less than significant on a project-specific basis but significant on a cumulative basis if their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable. However, it should be noted that CEQA Guidelines, Section 15064, subdivision (h)(5) states, "[…] the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable.

Section 15130(b) of CEQA Guidelines indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, but that analysis should reflect the severity of the impacts and their likelihood of occurrence, and that the analysis should be focused, practical, and reasonable. To be adequate, a discussion of cumulative effects must include the following elements:

> (1) Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency's control, or (b) a summary of projections contained in an adopted general plan or related planning document, or in a prior certified EIR, which described or evaluated regional or area-wide conditions contributing to the cumulative impact, provide that such documents are reference and made available for public inspection at a specified location;
>
> (2) A summary of the individual projects' environmental effects, with specific reference to additional information and stating where such information is available; and
>
> (3) A reasonable analysis of all of the relevant projects' cumulative impacts, with an examination of reasonable, feasible options for mitigating or avoiding the project's contribution to such effects (Section 15130[b]).

For some projects, the only feasible mitigation measures will involve the adoption of ordinances or regulations, rather than the imposition of conditions on a project-by-project basis (Section

15130[c]). 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 the project's fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

A discussion of cumulative impacts is provided within each of the technical chapters of this EIR pursuant to CEQA Guidelines Section 15130.

Cumulative Setting

The lead agency should define the relevant geographic area of inquiry for each impact category (id., Section 15130, subd. [b][3]), and should then identify the universe of "past, present, and probable future projects producing related or cumulative impacts" relevant to the various categories, either through the preparation of a "list" of such projects or through the use of "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact" (id., subd. [b][1]).

The majority of the cumulative analysis in this EIR is based upon a summary of projections contained in the City of Elk Grove General Plan, as well as other reasonably foreseeable projects within the project region. Present and future probable local projects within the City of Elk Grove include, but are not limited to, the following projects: Elliott Springs Subdivision, Summer Park Estates, Pleasant Grove Estates Rezone and Subdivision Map, Summer Flats Project, Summer Meadows Map and Rezone, and 9826 Bond Road Map.

Limited situations exist where geographic setting differs between project chapter analysis within a particular region. Examples include air quality, for which the cumulative geographic setting is the Sacramento Valley Air Basin (SVAB). Global climate change is, by nature, a cumulative impact. Greenhouse gas (GHG) emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to ecosystems, impacts to agriculture, and other environmental impacts). A single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the combination of GHG emissions from a project in combination with other past, present, and future projects could contribute substantially to the world-wide phenomenon of global climate change and the associated environmental impacts. Although the geographical context for global climate change is the Earth, for analysis purposes under CEQA, and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the Project, the geographical context for global climate change in this EIR is limited to the State of California.

For hydrology and water quality, the cumulative analysis appropriately focuses on the 27,000-square mile Sacramento River Watershed, within which the site is located.

6.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

As established in CEQA Guidelines Section 15126.2(d), this EIR is required to include consideration of significant irreversible environmental changes that would be caused by the Project, should the project be implemented. An impact would be determined to be a significant and irreversible change in the environment if:

- Buildout of the Project area could involve a large commitment of nonrenewable resources;

- The primary and secondary impacts of development could generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- Development of the Project could involve uses in which irreversible damage could result from any potential environmental accidents associated with the Project; or
- The phasing and eventual development of the Project could result in an unjustified consumption of resources (e.g., the wasteful use of energy).

The Project would likely result in, or contribute to, the following significant irreversible environmental changes:

- Conversion of predominantly vacant land to a fully built-out community for residential and recreational use, thus precluding alternative land uses in the future;
- Irreversible consumption of goods and services, such as fire and police services, associated with the future population; and
- Irreversible consumption of energy and natural resources, such as water and electricity, associated with the future uses.

6.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS

According to CEQA Guidelines, an EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented (CEQA Guidelines Section 15126.2[c]). Such impacts would be considered unavoidable when the determination is made that either mitigation is not feasible or only partial mitigation is feasible such that the impact is not reduced to a level that is less-than-significant. This section identifies significant impacts that could not be eliminated or reduced to a less-than-significant level by mitigations imposed by the City. The final determination of the significance of impacts and the feasibility of mitigation measures would be made by the City as part of the City's certification action. The significant and unavoidable impacts of the Project are summarized below.

In a non-urbanized area, substantially degrade the existing visual character or quality of views of the site and its surroundings. (Impact 4.1-1)

The site consists predominately of views of undeveloped grassland in the foreground, and grassland and trees in the midground and background. Although development of the Project would result in minimal intrusion to the existing foreground views around the site, existing midground and background views from identified key viewpoints would be significantly altered from an undeveloped grassy field to single-unit residences and associated recreational development, eliminating the majority of existing on-site views. While incorporation of the Laguna Creek Open Space area in the center of the site and the Waterman Recreational Open Space in the western portion of the site would preserve a portion of the currently available on-site views, the majority of the current visual character would be permanently altered by buildout of the Project. Consequently, the Project would substantially degrade the existing visual character or quality of views of the site and its surroundings. Although the Project would be required to comply with the design standards of the Summer Villas SPA, which would help to reduce the severity of the aesthetic impact of the Project, because the Project would substantially change the existing visual character of the site from an undeveloped grassy field to single-unit residences and associated recreational development, feasible mitigation does not exist to reduce the above impact to a less-than-significant level. Therefore, the potential impact would be significant and unavoidable.

Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. (Impact 4.1-3)

The Project would introduce additional sources of light and glare where none currently exist. Because the types of lighting and the specific locations have not yet been finalized, compliance with EGMC Chapter 23.56, the City's Design Guidelines, and the development standards of the Summer Villas SPA cannot be ensured without providing for additional enforcement mechanisms after SPA approval, other entitlement approvals, and at the time of construction. Therefore, the Project could increase the amount of light and glare generated on-site, which could be visible from the surrounding residential neighborhoods and roadways in the project vicinity, including contributions to nighttime sky glow that deteriorate the "dark sky" setting of the site and surrounding environs. Mitigation Measure 4.1-3 requires preparation and submittal of lighting and photometric plans to ensure that new lighting associated with the Project would not trespass onto surrounding properties. However, the required plans would not be able to adequately address the potential for future homeowners to install individual lights that could conflict with the City's standards, nor the potential effect of the proposed residences being clustered in higher densities than the surrounding rural residential area. Due to the uncertainties related to future residential lighting and the ultimate level of illumination in the area, feasible mitigation does not exist to reduce the above impact to a less-than-significant level. Therefore, the impact was determined to remain significant and unavoidable.

Long-term changes in visual character associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove. (Impact 4.1-4)

Because the Project would include a General Plan/Rural Community Plan Amendment to change the Zoning Code and Rural Community Plan land use designations of the site from Rural Residential (RR) to Low Density Residential (LDR) and Parks and Open Space (P/OS), as well as remove the Rural Area Community Plan designation, the Project would result in residential development at a higher density than what was anticipated for the site in the General Plan EIR. Due to the increase in residential density, the cumulatively considerable and significant and unavoidable impact related to cumulative visual resource impacts identified in the General Plan EIR could be exacerbated by the Project. Thus, development of the Project would substantially alter the existing visual character and quality of the site through conversion of the existing predominantly grasslands to an active adult residential development. Compliance with the City's Design Guidelines, supplemental guidelines, and EGMC policies would ensure the visual character of future projects is consistent with the City's applicable standards; however, even with implementation of such guidelines and policies, future development would substantially change the visual character of the City's Rural Area Community Plan. In conjunction with other cumulative development within the City, the Project would significantly alter the visual character of the area. Therefore, the Project's incremental contribution to such impacts would be significant. Feasible mitigation is not available to reduce the cumulative impact identified by the City's General Plan EIR, and such impacts were determined to be significant and unavoidable.

Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. (Impact 4.2-7)

The City of Elk Grove is in the jurisdictional boundaries of the Sacramento Metropolitan Air Quality Management District (SMAQMD). Pursuant to SMAQMD and Section 15183.5 of the CEQA

Guidelines, a project may satisfy applicable GHG analysis requirements under CEQA by demonstrating compliance with a qualified Climate Action Plan (CAP). However, the Project would require a General Plan Amendment and Rezone; thus, the GHG emissions resulting from the Project have not been accounted for within the City of Elk Grove's CAP. Because the Project has not been accounted for within the City's CAP, the analysis was prepared to show compliance with SMAQMD's construction and operational GHG thresholds of significance. In addition, although the Project was not considered within the City's CAP, the Project would be required to show consistency with the CAP Consistency Checklist included in the City of Elk Grove CAP. Thus, a CAP consistency analysis is also included.

Based on the analysis within Chapter 4.2 of this EIR, the Project would be required to implement Mitigation Measures 4.2-7(a) through (c) to ensure compliance with the SMAQMD's applicable threshold of significance for operational GHG emissions, as well as with the applicable CAP Consistency Checklist measures. However, due to uncertainties regarding Mitigation Measure 4.2-7(c) related to Transportation Demand Management (TDM) strategies to reduce vehicle miles traveled (VMT), as explained in further detail in Chapter 4.2 and 4.11 of this EIR, even with implementation of the aforementioned mitigation measures, implementation of the Project could 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 GHG. Therefore, the Project's incremental contribution to this significant cumulative impact would remain cumulatively considerable and significant and unavoidable.

Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure). (Impact 4.8-3)

The Project would include the development of 499 new age-restricted single unit residences, increasing the available housing within the City of Elk Grove. Using the 3.09 persons/household average household size for the City, the Project could house an estimated 1,542 new residents. However, the 2020 MTP/SCS identifies the Rural Area Community Plan as a Rural Residential Community, located outside of urbanized areas. Therefore, development of the site with urban uses has not been previously anticipated. As shown in table 4.8-5 of Chapter 4.8, Land Use and Planning-Population and Housing, of this EIR, the Project would exceed the anticipated housing unit growth in RR Communities pursuant to the 2020 MTP/SCS by 441 units. The 441 additional units associated with the Project would exceed the anticipated housing unit growth from 2016 to 2040 in Rural Residential Communities, pursuant to the 2020 MTP/SCS. Thus, population growth resulting from the Project would not be within the SACOG or City of Elk Grove growth estimates for the Rural Area Community Plan. As a result, the Project would be considered to induce substantial unplanned population growth. Feasible mitigation does not exist to reduce the above impact to a less-than-significant level. Therefore, the impact would be significant and unavoidable.

Cumulative unplanned population growth. (Impact 4.8-5)

Buildout of the Rural Area Community Plan area was anticipated to result in population growth within the Rural Residential Plan Area through the development of rural developments, including the site. The 2020 MTP/SCS projected that a total of 390 housing units would be developed in Rural Residential Areas between 2016 and 2040; thus, development of the Project with 499 active adult residential units, in combination with other proposed and planned cumulative development in the City of Elk Grove and the Rural Area Community Plan area, would exceed what is identified

in the MTP/SCS. The MTP/SCS is not a land plan or regionally adopted land use policy, and projects that are inconsistent with the MTP/SCS are not prohibited from proceeding. Nonetheless, for the purposes of this analysis, exceeding the projections identified in the MTP/SCS would be considered a significant cumulative impact. Feasible mitigation to reduce the potential impact to a less-than-significant level does not exist. Therefore, the impact would remain cumulatively considerable and significant and unavoidable.

Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Impact 4.9-1)

As shown Table 4.9-9 of Chapter 4.9, Noise, of this EIR, construction of the Project off-site improvements is predicted to generate noise-level increases in excess of 16.6 dB, which would exceed the Caltrans increase criteria of 12 dBA along all roadways which could be potentially included un the off-site improvements. Mitigation Measure 4.9-1(a) would install temporary noise barriers in order to reduce temporary construction noise levels at the nearest residential receptors. As shown in Table 4.9-10 of Chapter 4.9 Noise, of this EIR, the temporary barriers would reduce construction noise levels associated construction areas by 5.0 dBA. However, even with the implementation of temporary barriers, noise associated with construction areas would increase by up to 26.4 dBA, which exceeds the Caltrans increase in threshold of 12 dBA. Mitigation Measure 4.9-1(b) requires Project Improvement Plans to be subject to review and approval of the City of Elk Grove Community Development Department. Such approval would ensure compliance with City construction regulations, such as requiring on-site construction activities to occur only between the hours of 7:00 AM and 7:00 PM and requiring all construction equipment to be equipped with noise-reduction mufflers. Based on the above, noise levels associated with construction activities would result in a significant temporary noise level increase at the nearest sensitive receptors. Therefore, although implementation of mitigation would reduce the above significant impact, the impact would remain significant and unavoidable.

Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). (Impact 4.11-4)

As discussed in Chapter 4.11, Transportation, of this EIR, Fehr & Peers determined that under 2020 conditions, the Citywide limit of total daily VMT is 8,066,247 VMT, and the City's VMT per service population limit for the LDR land use is 19.3 VMT per service population. As shown in Table 4.11-7 of Chapter 4.11, the Project's VMT per service population for the LDR land use would be 20.7, which would exceed the VMT limit by 7.3 percent. Furthermore, as shown in table 4.11-8 of Chapter 4.11, the total daily VMT generated by the City of Elk Grove with the Project would exceed the cumulative General Plan Buildout VMT limit by 0.07 percent. Thus, the Project would result in VMT in excess of the applicable thresholds of significance, and a significant impact would occur. Implementation of Mitigation Measure 4.11-4 would reduce VMT associated with the Project by implementing TDM strategies to reduce external vehicle trips generated by residents of the Project. However, the effectiveness of the TDM strategies cannot be quantified at this time and subsequent vehicle trip reduction effects cannot be guaranteed. Furthermore, even if implemented, the ability of TDM strategies to sufficiently reduce VMT generated by the project to levels below the thresholds of significance is uncertain. Due to uncertainties regarding the ability for the aforementioned mitigation measure to reduce VMT impacts to less-than-significant levels, VMT impacts of the Project would be considered to remain significant and unavoidable.

7. Alternatives Analysis

7. ALTERNATIVES ANALYSIS

7.1 INTRODUCTION

The Alternatives Analysis chapter of the EIR includes consideration and discussion of a range of reasonable alternatives to the Project, as required pursuant to CEQA Guidelines Section 15126.6. Generally, the chapter includes discussions of the following: the purpose of an alternatives analysis; alternatives considered but dismissed; a reasonable range of project alternatives and their associated impacts in comparison to the Project's impacts; and the environmentally superior alternative.

7.2 PURPOSE OF ALTERNATIVES

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is 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." In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> [...]capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Section 15126.6(f) of CEQA Guidelines states, "The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." Section 15126.6(f) of CEQA Guidelines further states:

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

In addition, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

The CEQA Guidelines provide the following guidance for discussing alternatives to a Project:

- An EIR shall 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 (CEQA Guidelines Section 15126.6[a]).
- Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] 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 (CEQA Guidelines Section 15126.6[b]).

- The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination […] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts (CEQA Guidelines Section 15126.6[c]).
- The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison (CEQA Guidelines Section 15126.6[d]).
- 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 shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines Section 15126.6[d]).
- The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the project with the impacts of not approving the project. The no project alternative analysis is not the baseline for determining whether the project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (CEQA Guidelines Section 15126.6[e][1]).
- If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

Project Objectives

Based on the above, reasonable alternatives to the Project must be capable of feasibly attaining most of the basic objectives of the Project. The Project is being pursued with the following objectives developed by the Project applicant:

1. To facilitate the development of a 115.9-acre site in the northeastern portion of the City of Elk Grove by removing the property from its Rural Area designation and amending the site's land use designations and zoning to allow for the development of an active adult and senior living community and the preservation of open space.
2. To provide for the development of a 499-unit age restricted (55+) residential neighborhood, as well as a private clubhouse and recreational center for residents, on a 115.9-acre site in the northeastern part of the City of Elk Grove.
3. To increase the diversity of housing types available in Elk Grove and provide opportunities for senior rural residents to downsize from their current large-lot homes to lower-maintenance homes while staying in the Sheldon area.
4. To maximize land utilization on the 115.9-acre site by clustering residential units on approximately 55 percent of the site while preserving the remainder of the site in open space and recreation.
5. To preserve open space associated with the Laguna Creek corridor and preclude development in areas constrained by existing overhead utility easements and flooding risks.

6. To preserve approximately 45 percent (39.3 acres) of the 115.9-acre site consisting of: 1) a western 19.4-acre open space area along Waterman Road that contains existing overhead power-line easements and 2) a 19.9-acre open space area that encompasses the Laguna Creek corridor, the 100-year floodplain, and setbacks from the giant garter snake habitat surrounding the creek.
7. To develop an on-site bicycle and pedestrian trail network connecting to on-site private roads and to the regional trails network in the vicinity of the site, including a bridge crossing of Laguna Creek to allow for bicycle, pedestrian, and golf cart access between the western and eastern portions of the site.
8. To be compatible with surrounding land uses through the combination of Low Density Residential (LDR) and Open Space (P/OS) designations on the 115.9-acre site, preserving setbacks and respecting compatibility in structural height.

Impacts Identified in the EIR

In addition to attaining the majority of project objectives, reasonable alternatives to the Project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the Project. The significant but mitigable and significant and unavoidable impacts identified in the EIR are presented in Table 7-2 at the end of this chapter; the significant and unavoidable impacts identified in the EIR are also presented below.

- ***Aesthetics.*** The EIR determined that the Project would result in significant and unavoidable impacts related to substantially degrading the existing visual character or quality of public views of the site and its surroundings in a non-urbanized area due to the lack of feasible mitigation. Additionally, the EIR determined that, because the types of Project lighting and the specific locations within the site have not yet been finalized, a significant and unavoidable impact would occur related to creating a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Finally, due to the lack of feasible mitigation, long-term changes in visual character associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove would result in a significant and unavoidable impact.

- ***Air Quality, GHG Emissions, and Energy.*** The EIR determined that the Project would result in significant and unavoidable impacts related to the generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, even with implementation of mitigation.

- ***Land Use and Planning/Population and Housing.*** The EIR determined that the Project would result in significant and unavoidable impacts related to inducing substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure), due to the lack of feasible mitigation. Additionally, the EIR determined that, due to the lack of feasible mitigation, cumulative unplanned population growth would result in a cumulatively considerable and significant and unavoidable impact.

- ***Noise.*** The EIR determined that the Project would result in significant and unavoidable impacts related to the generation of a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general

plan or noise ordinance, or applicable standards of other agencies, even with implementation of mitigation.

- ***Transportation.*** The EIR determined that, even with implementation of mitigation, the Project would result in significant and unavoidable impacts related to conflicting or being inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

7.3 SELECTION OF ALTERNATIVES

The requirement that an EIR evaluate alternatives to the Project or alternatives to the location of the Project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the Project could be attained, while reducing the magnitude of, or avoiding, one or more of the significant environmental impacts of the Project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the CEQA Guidelines require the EIR to "set forth only those alternatives necessary to permit a reasoned choice." As stated in Section 15126.6(a), an EIR need not consider every conceivable alternative to a project. Rather, an EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and thus limit the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines Section 15126.6(f):

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> [...] capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

Alternatives Considered But Dismissed From Further Analysis

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant project impacts, while still meeting most of the basic project objectives.

As stated in Guidelines Section 15126.6(c), among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are:

(i) failure to meet most of the basic project objectives,
(ii) infeasibility, or
(iii) inability to avoid significant environmental impacts.

Regarding item (ii), infeasibility, 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). The aforementioned factors do not establish a fixed limit on the scope of reasonable alternatives.

An Off-Site Alternative and an Increased Density Alternative were considered but dismissed from detailed analysis in this EIR. The reasons for dismissal, within the context of the three above-outlined permissible reasons, are provided below.

Off-Site Alternative

As noted previously, the purpose of an alternatives analysis is to develop alternatives to the Project that substantially lessen at least one of the significant environmental effects identified as a result of the Project, while still meeting most, if not all, of the basic project objectives. Development of the Project at an off-site location would not be capable of meeting the project objectives due to the project objectives being specific to the 115.9-acre site and the site's location within the Sheldon area of northeastern Elk Grove and providing open space to preserve the Laguna Creek corridor. Furthermore, the CEQA Guidelines (Section 15126.6[b]) requires that only locations that would avoid or substantially lessen any of the significant effects of the Project need be considered for inclusion in the EIR. An Off-Site Alternative would involve the construction of the Project on an alternative location and would have the same type and intensity of uses as the Project.

Three alternative sites were identified by the City that would be large enough to accommodate the 75 acres of residential uses proposed by the Project. Site 1, identified by Assessor's Parcel Number (APN) 132-0290-041, located at 10176 West Stockton Boulevard, is approximately 68 acres, and Site 2, identified by APN 132-0320-119, located at 8489 Kammerer Road, is approximately 144 acres. Both Site 1 and Site 2 are designated as Employment Center (EC) by the City of Elk Grove General Plan and are zoned Mixed-Use. While Site 1 and Site 2 would be large enough to accommodate the Project, the sites would require a Rezone and a General Plan Amendment in order to be developed with residential uses. In addition, the applicant does not own any of the identified alternative sites that would be adequate to construct the Project.

In addition, Site 3, identified by APN 134-1210-001, is located at 10400 Waterman Road within the Southeast Industrial Area. Site 3 is zoned as Light Industrial and is surrounded by existing industrial uses. As such, Site 3 would not be suitable for residential development and would not be able to accommodate the Project.

Increased Density Alternative

As discussed in Chapter 4.11, Transportation, of this EIR, in order to reduce VMT associated with the Project to below the applicable thresholds of significance, the Project would be required to achieve a 7.3 percent reduction in VMT per service population. By increasing the density by one dwelling unit per acre (du/ac), a reduction of approximately 3.14 percent in residential VMT can be achieved, up to a maximum reduction of 30 percent. As such, in order to reach a 7.3 percent reduction in VMT per service population, the Increased Density Alternative would require an approximately 2.3 du/ac increase in residential density within the 91.6-acre residential portion of the site, for a total residential density of approximately 7.7 du/ac, as compared to the approximately 5.45 du/ac residential density associated with the Project. The increase in density would result in a total of 710 residences within the 91.6-acre residential portion of the site. The remaining site acreage would be left as undeveloped open space. As such, while the development footprint under the Increased Density Alternative would be similar to the Project, the Alternative would result in a significantly higher residential density as compared to the Project in order to

reduce impacts related to VMT. However, an increase to a residential density of 7.7 du/ac would be inconsistent with the proposed land use designation of LDR, which allows for a maximum density of 7.0 du/ac, and would require a General Plan Amendment to the MDR land use designation. Furthermore, the VMT threshold for MDR uses is reduced to 17.9 VMT per service population, and the Alternative would thus still exceed the applicable VMT threshold (the MDR VMT threshold).

While the Increased Density Alternative would reduce impacts related to VMT to a less-than-significant level, due to the increased number of future residents and residential units, the Alternative would be anticipated to result in increased impacts related to air quality, GHG, and energy and population and housing, as compared to the Project. In addition, while significant impacts related to such were not identified for the Project, the Alternative would also be anticipated to result in additional operational noise associated with the increase in residential uses and demand for public services and utilities due to the increased number of residential units and population. The Alternative would not be capable of meeting Objectives #2 and #8, which are focused on providing 499 age-restricted units that are compatible with surrounding land uses.

Overall, an Increased Density Alternative would not meet the requirements of CEQA Guidelines Section 15126.6(c) due to failure to meet most of the basic project objectives, infeasibility, and inability to avoid significant environmental impacts. Therefore, an Increased Density Alternative was dismissed from detailed analysis within this EIR.

Alternatives Considered in this EIR

The following alternatives are considered and evaluated in this section:

- No Project (No Build) Alternative;
- No Project (Buildout Pursuant to General Plan) Alternative; and
- Aquatic Resource Avoidance Alternative.

Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative's impacts in comparison to the Project. As discussed above, reasonable alternatives to the Project must be capable of avoiding or substantially lessening a new significant impact or substantial increase in severity of a significant impact, as identified by this EIR. Therefore, this chapter focuses on the resource areas and specific impacts listed above that have been identified in this EIR for the Project as requiring mitigation to reduce significant impacts to less than significant, or have been found to remain significant and unavoidable. While an effort has been made to include quantitative data for certain analytical topics, where possible, qualitative comparisons of the various alternatives to the Project are primarily provided. Such an approach to the analysis is appropriate as evidenced by CEQA Guidelines Section 15126.6(d), which states that the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the Project as proposed.

The analysis evaluates impacts that would occur with the alternatives relative to the significant impacts identified for the Project. When comparing the potential impacts resulting from implementation of the foregoing alternatives, the following terminology is used:

- "Fewer" = Less than the Project;
- "Similar" = Similar to the Project;

- “Greater” = Greater than the Project; and
- "None” = No impact.

When the term “fewer” is used, the reader should not necessarily equate this to elimination of significant impacts identified for the Project. For example, in many cases, an alternative would reduce the relative intensity of a significant impact identified for the Project, but the impact would still be expected to remain significant under the alternative, thereby requiring mitigation. In other cases, the use of the term “fewer” may mean the actual elimination of an impact identified for the Project altogether. Similarly, use of the term “greater” does not necessarily imply that an alternative would require additional mitigation beyond what has been required for the Project. To the extent possible, this analysis will distinguish between the two implications of the comparative words “fewer” and “greater.”

See Table 7-2 at the end of this chapter for a summary comparison of the environmental impacts resulting from the considered alternatives and the Project.

No Project (No Build) Alternative

CEQA requires the evaluation of the comparative impacts of the “No Project” Alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the No Project Alternative shall:

> “[…] discuss […] existing conditions […] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” (*Id.*, subd. [e][2]) “If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the ‘no project’ alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in the property’s existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this ‘no project’ consequence should be discussed. In certain instances, the no project alternative means ‘no build,’ wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.” (*Id.*, subd. [e][3][B]).

The No Project (No Build) Alternative assumes that the current conditions of the site would remain, and the site or off-site improvements would not be developed. As described in this EIR, the site is currently developed with a single-unit residence, which is currently occupied, and accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries generally run from the northern boundary of the site to the southern boundary of the site.

Because residential uses or a bicycle and pedestrian trail network would not be developed, the No Project (No Build) Alternative would not meet the majority of the project objectives. However, the Alternative would fully satisfy Objective #5 and Objective #6 related to preservation of open space due to the preservation of existing natural habitat throughout the site.

Aesthetics

The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the site. Currently, the site is developed with a single-unit residence, which is currently

occupied, and accessory structures in the northwest corner of the site. The remainder of the site consists of grassland vegetation, which is used for grazing. In addition, Laguna Creek tributaries generally run from the northern boundary of the site to the southern boundary of the site. Because the No Project (No Build) Alternative would not introduce any new structures or buildings on the site, the Alternative would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. In addition, the creation of new sources of light or glare would not occur, and Mitigation Measures 4.1-3 and 4.1-5 would not be required. Thus, impacts related to Aesthetics would not occur under the No Project (No Build) Alternative. The significant and unavoidable (project-level and cumulative) impact related to Aesthetics would not occur under the No Project (No Build) Alternative.

Air Quality, Greenhouse Gas Emissions, and Energy

Because the No Project (No Build) Alternative would not involve development of the site, construction and operational activities would not occur under the alternative. Therefore, the Alternative would not generate GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Thus, the impacts identified for the Project related to GHG emissions would not occur under the No Project (No Build) Alternative, and Mitigation Measures 4.2-7(a), 4.2-7(b), and 4.2-7(c) would not be required. Overall, no impacts related to Air Quality, GHG Emissions, and Energy would occur under the No Project (No Build) Alternative.

Biological Resources

Under the No Project (No Build) Alternative, construction activities, including ground disturbance, would not occur on the site. As such, the Alternative would not have the potential to impact special-status plants, Crotch's bumble bee, special-status branchiopod species, monarch butterfly, western spadefoot, northwestern pond turtle, nesting birds and raptors protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), roosting bats, and American badger. The Alternative would not include removal of trees and, thus, would not conflict with the City's tree preservation ordinance. In addition, the Alternative would not have a substantial adverse effect on federal or State protected wetlands. As such, none of the mitigation measures related to biological resources required for the Project would be required under the Alternative. Overall, no impacts related to Biological Resources would occur under the No Project (No Build) Alternative.

Cultural and Tribal Cultural Resources

Because land disturbance would not occur under the No Project (No Build) Alternative, ground-disturbing activities associated with construction would not occur, and the Alternative would not have the potential to result in impacts to cultural or tribal cultural resources. Mitigation Measures 4.4-1, 4.4-2(a) through (e), 4.4-3(a) and (b) would not be required. Overall, no impacts related to Cultural and Tribal Cultural Resources would occur under the No Project (No Build) Alternative.

Geology and Soils

Because the No Project (No Build) Alternative would not include grading or other ground-disturbing activities associated with development, the Alternative would not have the potential to destroy a unique paleontological resource or site or unique geologic feature, and Mitigation Measure 4.5-4 would not be required. In addition, because development would not occur, the Alternative would not result in buildings that could become unstable as a result of lateral spreading and subsidence/settlement, and Mitigation Measures 4.5-3, requiring implementation of

geotechnical recommendations, would not be necessary. Overall, no impacts related to Geology and Soils would occur under the No Project (No Build) Alternative.

Hazards and Hazardous Materials

The No Project (No Build) Alternative would not include any development; thus, the Alternative would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. As such, Mitigation Measures 4.6-2(a) through (f) would not be required. It should be noted that any such hazardous materials located on-site would remain on-site under the No Project (No Build) Alternative. As such, the site would not undergo any remediation efforts, potentially reducing the site's suitability for any future development. Overall, no impacts related to Hazards and Hazardous Materials would occur under the No Project (No Build) Alternative.

Hydrology and Water Quality

The No Project (No Build) Alternative would not include any ground disturbance or otherwise alter existing site conditions and, thus, would not have the potential to result in construction or operational impacts related to water quality, changes in drainage patterns, release of pollutants due to project inundation, or increases in stormwater runoff rates. Thus, Mitigation Measures 4.7-1, 4.7-2(a), 4.7-2(b), 4.7-4, 4.7-5(a), and 4.7-5(b) would not be required. Overall, no impacts related to Hydrology and Water Quality would occur under the No Project (No Build) Alternative.

Land Use and Planning/Population and Housing

Because the No Project (No Build) Alternative would not include any development on-site, the Alternative would not induce substantial unplanned population growth either directly or indirectly, and would not result in cumulative unplanned population growth. Therefore, the significant and unavoidable and cumulatively considerable and significant and unavoidable impacts identified for the Project would not occur under the Alternative. Overall, no impacts related to Land Use and Planning/Population and Housing would occur under the No Project (No Build) Alternative.

Noise

The No Project (No Build) Alternative would not include any ground disturbance or otherwise alter existing site conditions and, thus, would not have the potential to generate a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Therefore, Mitigation Measures 4.9-1(a) and 4.9-1(b) would not be required, and no impacts related to Noise would occur under the No Project (No Build) Alternative.

Transportation

The No Project (No Build) Alternative would not generate construction or any new operational traffic on local roadways or include development that could conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian, bicycle, or transit facilities and services or conflict with CEQA Guidelines Section 15064.3, subdivision (b). Thus, Mitigation Measures 4.11-1, 4.11-2, 4.11-3(a) and (b), and 4.11-4 would not be required, and no impacts related to Transportation would occur under the No Project (No Build) Alternative.

No Project (Buildout Pursuant to General Plan) Alternative

The No Project (Buildout Pursuant to General Plan) Alternative would consist of buildout of the site according to the current City of Elk Grove General Plan land use designations. The existing single-unit residence, which is currently occupied, and accessory structures in the northwest

corner of the site would remain on-site and would not be demolished under the Alternative. The site is located within the City's Rural Area Community Plan. Both the Rural Area Community Plan and the City of Elk Grove General Plan designate the site as Rural Residential (RR). While development of the site based on the acreage and the existing General Plan land use and zoning designations would result in maximum allowable units of 58, Table 7-1 provides a summary of the development area that could occur under the No Project (Buildout Pursuant to General Plan) Alternative as compared to the Project after consideration of the known site constraints.

Table 7-1
Development Area Comparison – No Project (Buildout Pursuant to General Plan) Alternative

Land Use	Project (Acres)	Alternative (Acres)
RR	--	71.3
LDR	91.6	--
Parks and Open Space (P/OS)	19.4	39.7
Waterman Road and Sheldon Road	4.9	4.9
Total Acreage	**115.9**	**115.9**

Specifically, the 20.3-acre Laguna Creek riparian corridor would not be developed with RR uses under the Alternative. In addition, similar to the Project, the existing utility easement, which would be included within the 19.4-acre P/OS area under the Project, would not be developed under the Alternative, and 4.9 acres of Waterman Road and Sheldon Road would be improved under the Alternative. Thus, while the entire site is currently designated as RR, as shown in Table 7-1, the Alternative would be expected to result in a total developable area of 71.3 acres of RR uses. The RR land use designation provides for large-lot rural residential development. Limited agricultural uses and animal-keeping are also allowed, and lot sizes typically range from two to 10 acres. The allowable residential density for the RR land use designation ranges from a minimum of 0.1 du/ac to a maximum of 0.5 du/ac. As such, under the No Project (Buildout Pursuant to General Plan) Alternative, a maximum of 35 residential units could be developed within a reasonably developable area of 71.3 acres (115.9 total acres – 19.4-acre P/OS – 20.3 Laguna Creek riparian corridor – 4.9 acres of roadway = 71.3-acre developable area). The AR-2 zoning district implements the RR General Plan designation. The AR-2 zoning district is applied to areas of the City to accommodate low density single-unit residential uses in a rural setting with agricultural and accessory uses. Lots with the AR-2 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 district allows for one primary residential unit on lots with a minimum size of two gross acres. Under the Alternative, the proposed off-site improvements to provide water and sanitary sewer service to the Project would not be required, as the proposed residences would be serviced by water wells and septic systems. In addition, off-site roadway improvements would not be required under the Alternative, as the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabouts are currently adequately sized for development of the site with RR uses.

Because the No Project (Buildout Pursuant to General Plan) Alternative would include development of the site with single-unit residential uses located within the existing rural community within northeastern Elk Grove, would include open space areas, would develop an on-site bicycle and pedestrian trail network, and would be compatible with surrounding land uses, Objectives #5 through #8 would generally be met. However, because the Alternative would not remove the property from its Rural Residential designation, provide 499 residential units, increase

the diversity of housing types, or cluster residential units, Objectives #1 through #4 would not be met under the Alternative.

Aesthetics

The No Project (Buildout Pursuant to General Plan) Alternative would include development of the site with rural residential uses in the same development footprint as the Project. The lot sizes under the Alternative would range from two to 10 acres and would be similar in visual character to the surrounding rural residential uses. Therefore, while the Alternative would result in a reduction in the intensity of the impact related to the substantial degradation of the existing visual character or quality of public views of the site and its surroundings, and to long-term changes associated with cumulative development of the City, the impact would still be significant and unavoidable and mitigation would still not be feasible.

In addition, the Alternative would be restricted to the development of a maximum of 35 residential units, while the Project would develop a maximum of 499 single-residential unit residences. Therefore, the Alternative would produce less light and glare than the Project, and the Alternative would result in a lesser impact related to the creation of a new source of substantial light or glare which would adversely affect day or nighttime views in the area and associated with cumulative development of the City. However, Mitigation Measures 4.1-3 and 4.1-5, requiring a lighting plan and photometric plan on residential lighting, would still be required.

It should be noted that the significant and unavoidable impact related to aesthetics would still occur, and, similar to the Project, feasible mitigation measures would not exist to reduce the significant and unavoidable impact to a less-than-significant level. Overall, potential impacts related to Aesthetics would be fewer under the No Project (Buildout Pursuant to General Plan) Alternative compared to the Project.

Air Quality, GHG Emissions, and Energy

The No Project (Buildout Pursuant to General Plan) Alternative would include development of the site with similar residential uses as the Project. While the No Project (Buildout Pursuant to General Plan) Alternative and the Project would both include development of the site with residential uses, the Alternative would include the development of 464 fewer dwelling units than currently proposed. Similar to the Project, the Alternative would be subject to Mitigation Measures 4.2-7(a) and 4.7-(c) to ensure compliance with SMAQMD BMPs 1 and 2 related to prohibiting natural gas or resulting in equivalent GHG emission reductions elsewhere and providing the required number of EV Ready and EVSE spaces. In addition, as discussed below under ‘Transportation,’ the significant impact related to VMT would still be anticipated to occur under the Alternative, and, therefore, the Alternative could conflict with SMAQMD BMP 3 or Measure TACM-6 of the City of Elk Grove Climate Action Plan (CAP), and Mitigation Measure 4.2-7(c) would still be required. Similar to the Project, due to uncertainties regarding the feasibility and effectiveness of the required mitigation measures, the Alternative’s impact would remain cumulatively considerable and significant and unavoidable.

Overall, impacts related to Air Quality, GHG Emissions, and Energy under the No Project (Buildout Pursuant to General Plan) Alternative would be similar to impacts under the Project.

Biological Resources

Similar to the Project, the No Project (Buildout Pursuant to General Plan) Alternative would include ground-disturbing activities on the site and, thus, would have the potential to impact

special-status plants, Crotch's bumble bee, special-status branchiopod species, monarch butterfly, western spadefoot, northwestern pond turtle, nesting birds and raptors protected under the MBTA and CFGC, roosting bats, and American badger. Similar to the Project, the No Project (Buildout Pursuant to General Plan) Alternative could result in impacts to trees of local importance and conflict with the City's tree preservation ordinance and could result impact federal or State protected aquatic resources. While the Alternative would not include disturbance within the areas proposed for off-site utility and roadway improvements under the Project, because the on-site development footprint would remain similar under the Alternative, the analysis of impacts associated with the on-site development within the Biological Resources chapter of this EIR would still apply to the Alternative, and Mitigation Measures 4.3-1(a), 4.3-1(b), 4.3-2, 4.3-3, 4.3-4, 4.3-5, 4.3-6, 4.3-7(a) through (c), 4.3-8, 4.3-9, 4.3-10(a) through (c), and 4.3-12 would still be required. Therefore, impacts related to Biological Resources under the No Project (Buildout Pursuant to General Plan) Alternative would be similar to the Project.

Cultural and Tribal Cultural Resources

Similar to the Project, the No Project (Buildout Pursuant to General Plan) Alternative would result in on-site disturbance to accommodate new development. Because off-site roadway improvements would not be required under the Alternative, as the Sheldon Road/Waterman Road and Sheldon Road/Bradshaw Road roundabouts are currently adequately sized for development of the site with RR uses, Mitigation Measure 4.4-1, which requires a cultural study of such areas, would not be required. While the Alternative would not include disturbance within the areas proposed for off-site utility and roadway improvements under the Project, because the development footprint on the site would remain similar under the Alternative, Mitigation Measures 4.4-2(a) through (e), and 4.4-3(a) and (b) would still apply to the No Project (Buildout Pursuant to General Plan) Alternative to mitigate the potentially significant impact associated with the potential disturbance or destruction of unknown archaeological resources, human remains, or tribal cultural resources during construction. Overall, potential impacts related to Cultural and Tribal Cultural Resources would be fewer under the No Project (Buildout Pursuant to General Plan) Alternative compared to the Project.

Geology and Soils

As noted above, the No Project (Buildout Pursuant to General Plan) Alternative would result in a similar area of on-site disturbance as the Project. However, because the off-site improvements would not be required under the Alternative, the potential for grading and other ground-disturbing activities to destroy a unique paleontological resource or site or unique geologic feature would be slightly reduced compared to the Project due to the overall reduction in disturbance area. Nonetheless, Mitigation Measure 4.5-4, related to inadvertent discovery of paleontological resources during ground-disturbing activities, would still be required. In addition, the on-site development under the Alternative would have the same potential to encounter soils that may become unstable as a result of lateral spreading and subsidence/settlement, and Mitigation Measure 4.5-3, requiring implementation of geotechnical recommendations, would still be required. Therefore, impacts related to Geology and Soils under the No Project (Buildout Pursuant to General Plan) Alternative would be similar to the Project.

Hazards and Hazardous Materials

As previously discussed, the No Project (Buildout Pursuant to General Plan) Alternative would entail buildout of the site with RR uses. Because the Alternative would occur within the same study area as the Phase I Environmental Site Assessment prepared for the Project, the Recognized Environmental Conditions (RECs) identified on the site related to the previous dairy

farm and significant regulatory non-compliance regarding wastewater management, as well as the stockpiled soils, would still be considered potentially significant impacts under the Alternative. Thus, the Alternative would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. As such, Mitigation Measures 4.6-2(a), 4.6-2(b), and 4.6-2(d) would still be required.

The No Project (Buildout Pursuant to General Plan) Alternative would not include demolition of the existing structures, and, therefore, construction workers would not come into contact with, and be exposed to, asbestos-containing materials (ACMs) or lead-based paints (LBPs) materials present in the on-site buildings. Thus, Mitigation Measure 4.6-2(e) would not be required under the Alternative. Similarly, because the Alternative would not include off-site utility or roadway improvements, a Phase I ESA would not be required for such areas, and Mitigation Measure 4.6-2(f) would not be required under the Alternative. Lastly, because the Alternative would include wells and septic systems for each of the 35 residential lots, the existing wells and septic system on-site would not be abandoned, and Mitigation Measure 4.6-2(c) would not be required. It should be noted that the new wells and septic systems developed under the Alternative would be subject to local regulations and would be permitted through the Sacramento County Environmental Management Department (EMD).

Overall, impacts related to Hazards and Hazardous Materials under the No Project (Buildout Pursuant to General Plan) Alternative would be fewer than the Project.

Hydrology and Water Quality

Because the No Project (Buildout Pursuant to General Plan) Alternative would not require off-site improvements and would, therefore, include a reduced overall disturbance area as compared the Project, the potential for the Alternative to result in construction-related impacts associated with water quality would be slightly reduced. In addition, because the Alternative would likely result in less new impervious surface areas as compared to the Project, operational impacts related to water quality, changes in drainage patterns, release of pollutants due to project inundation, or increases in stormwater runoff rates could be slightly reduced. Nonetheless, the mitigation measures included in Chapter 4.7, Hydrology and Water Quality, of this EIR require the preparation of a Storm Water Pollution Prevention Plan (SWPPP), a Best Management Practice (BMP) and water quality maintenance plan, a maintenance covenant, a design-level drainage report, and demonstration that development would not occur within a special flood hazard area (SFHA), all of which would be required under both the Project and the Alternative. Therefore, Mitigation Measures 4.7-1, 4.7-2(a), 4.7-2(b), 4.7-4, 4.7-5(a), and 4.7-5(b) would still be required. Overall, due to the likely reduction in impervious surface areas under the Alternative and the associated reduction in stormwater runoff that would be expected, impacts related to Hydrology and Water Quality under the No Project (Buildout Pursuant to General Plan) Alternative would be fewer compared to the Project.

Land Use and Planning/Population and Housing

Because the No Project (Buildout Pursuant to General Plan) Alternative would entail buildout of the site with RR uses and would remain consistent with the General Plan, the population increase projected through buildout of the site was anticipated by the City of Elk Grove as part of adoption of the General Plan. Thus, the Alternative would not induce substantial unplanned population growth either directly or indirectly, and would not result in cumulative unplanned population growth. Therefore, the significant and unavoidable and cumulatively considerable and significant

and unavoidable impacts identified for the Project would not occur under the Alternative. Overall, impacts related to Land Use and Planning/Population and Housing under the No Project (Buildout Pursuant to General Plan) Alternative would be fewer than impacts under the Project.

Noise

The No Project (Buildout Pursuant to General Plan) Alternative would include a similar area of on-site disturbance compared to the Project. Therefore, the potential to result in a substantial temporary noise increase during on-site construction would be the same, and Mitigation Measures 4.9-1(a), which reduce impacts associated with a temporary increase in ambient noise levels associated with on-site construction, would still be required. However, because the No Project (Buildout Pursuant to General Plan) Alternative would not include development of the off-site utility and roadway improvements, temporary noise increases associated with off-site construction would not occur. Therefore, Mitigation Measure 4.9-1(b) would not be required under the Alternative. Overall, impacts related to Noise under the No Project (Buildout Pursuant to General Plan) Alternative would be fewer than the Project, and the significant and unavoidable impact related to off-site construction noise would be eliminated.

Transportation

As previously discussed, the No Project (Buildout Pursuant to General Plan) Alternative would include buildout of the site with RR uses. While traffic associated with construction activities under the Alternative would be as reduced as compared to the Project, the Alternative would still require Mitigation Measure 4.11-1 to prepare a construction signing and traffic control plan. In addition, because the Alternative would still result in on-site development and increase in demand for pedestrian and bicycle facilities, transit ridership, and demand for transit stops near the Project, Mitigation Measures 4.11-2, and 4.11-3(a) and (b) would also still be required to reduce potential conflicts with a program, plan, ordinance or policy addressing the circulation system during operations, and the impacts would remain similar to the Project.

As discussed above, the No Project (Buildout Pursuant to General Plan) Alternative would include the development of 464 fewer units as compared to the Project. Due to the reduction in the number of units and, thus, the associated vehicle trips, the overall VMT associated with the Alternative would be reduced as compared to the Project. In addition, because the Alternative would be consistent with the existing General Plan land use designation, the VMT under the Alternative would be consistent with the VMT anticipated and analyzed in the General Plan EIR. As such, the Alternative would not cause the cumulative daily total VMT within the City to exceed the cumulative General Plan Buildout VMT limit. However, although the Alternative would involve a similar vehicle trip length as the Project, because the Alternative would not include development of age-restricted units, the daily vehicle trip rate would be higher under the Alternative. As a result, the daily VMT per capita would be greater than the Project. Thus, similar to the Project, the Alternative would still be expected to exceed the per capita Project-level VMT per service population limit. Therefore, the Alternative would result in a similar impact related to VMT (i.e., conflicting with CEQA Guidelines Section 15064.3, subdivision (b)). The impact would remain significant and unavoidable, and Mitigation Measure 4.11-4 would still be required. Overall, impacts related to Transportation under the No Project (Buildout Pursuant to General Plan) Alternative would be similar to the Project.

Aquatic Resource Avoidance Alternative

The Aquatic Resource Avoidance Alternative would consist of a similar buildout of the components of the Project on a reduced development footprint in order to further avoid, to the

extent feasible, impacts to aquatic resources. The Aquatic Resource Avoidance Alternative would maintain the same overall residential density as the Project, consisting of approximately seven du/ac within the areas proposed for residential development. However, unlike the Project, the Aquatic Resource Avoidance Alternative would not include development of residential uses and associated improvements within the West Neighborhood or the Waterman Recreational Open Space area. The Alternative would include a total development area consistent with the existing General Plan designation, with the exception of the western portion of the site. As such, the footprint under the Alternative would include the 40-acre East Neighborhood and the 20.3-acre Laguna Creek open space area. Thus, using a density of seven du/ac within a 60.3-acre footprint, the Alternative would result in a total of 422 units.

Pursuant to General Plan Policy NR-1-9, development clustering shall be encouraged 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. As such, the Alternative would cluster all residential units within the East Neighborhood, with no development occurring in the 20.3-acre Laguna Creek open space area. The remaining 71 acres of the site would remain undeveloped open space in order to preserve aquatic resources in the western portion of the site, and the pedestrian bridge over Laguna Creek would not be developed. However, utility extensions would still be required along Sheldon Road. Similar to the proposed water line extension, an off-site four- to six-inch diameter force main would be required along Sheldon Road and would cross Laguna Creek by either bore and jack under Laguna Creek or alternatively, attaching the line to the existing Sheldon Road Bridge. In addition, the proposed on-site lift station and the private community recreation center/clubhouse would also be included as part of the clustered development within the East Neighborhood.

Because the Aquatic Resource Avoidance Alternative would include development of the site with residential uses located within the existing rural community and an on-site bicycle and pedestrian trail network could still be developed within the east neighborhood to provide walkways connecting to the private community recreation center/clubhouse, Objective #1 and Objective #7 would be fully satisfied. In addition, Objectives #3 and #8 would be met, as the Alternative would increase the diversity of housing types available and would be compatible with surrounding land uses. Objectives #4, #5, and #6 would be satisfied to a greater extent, as the Alternative would further preserve existing aquatic resources, natural habitat, and open space through increased clustered development. However, Objective #2 would not be satisfied due to the decreased number of units that would be developed under the Aquatic Resource Avoidance Alternative.

Aesthetics

The Aquatic Resource Avoidance Alternative would include development of the site with residential uses, similar to the Project. However, the Alternative would preserve 31.3 additional acres of natural habitat and aquatic resources than the Project and would develop 77 fewer units than the Project on a reduced footprint with the same density. Due to the decreased disturbance area, impacts related to Aesthetics under the Alternative would be fewer than the Project. Nonetheless, the Alternative would still include residential development, and would still result in a significant and unavoidable impact related to the substantial degradation of the existing visual character or quality of public views of the site and its surroundings, and to long-term changes associated with cumulative development of the City, and mitigation would still not be feasible.

In addition, the Alternative would be restricted to the development of 422 residential units, while the Project would develop a maximum of 499 residential units. Therefore, the Alternative would produce less light and glare than the Project, and the Alternative would result in a lesser impact related to the creation of a new source of substantial light or glare which would adversely affect day or nighttime views in the area and associated with cumulative development of the City. However, Mitigation Measures 4.1-3 and 4.1-5, requiring a lighting plan and photometric plan on residential lighting, would still be required.

It should be noted that the significant and unavoidable impact related to aesthetics would still occur, and, similar to the Project, feasible mitigation measures would not exist to reduce the significant and unavoidable impact to a less-than-significant level. Overall, impacts related Aesthetics under the Aquatic Resource Avoidance Alternative would be fewer in regard to public views and light and glare to the Project.

Air Quality, GHG Emissions, and Energy

The Aquatic Resource Avoidance Alternative would include development of the site with similar residential uses as the Project. While the Aquatic Resource Avoidance Alternative would include development of the site with similar uses as the Project, the Alternative would include the development of 77 fewer dwelling units than currently proposed. Similar to the Project, the Alternative would be subject to Mitigation Measures 4.2-7(a) and 4.7-(c) to ensure compliance with SMAQMD BMPs 1 and 2 related to prohibiting natural gas or resulting in equivalent GHG emission reductions elsewhere and providing the required number of EV Ready and EVSE spaces. In addition, as discussed below under 'Transportation,' the significant and unavoidable impact related to VMT would still be anticipated to occur under the Alternative, and, therefore the Alternative would conflict with SMAQMD BMP 3 or Measure TACM-6 of the City of Elk Grove CAP, and Mitigation Measure 4.2-7(c) would still be required. Similar to the Project, due to uncertainties regarding the feasibility and effectiveness of the mitigation measures, the Alternative's impact would remain cumulatively considerable and significant and unavoidable.

Overall, impacts related to Air Quality, GHG Emissions, and Energy under the Aquatic Resource Avoidance Alternative would be similar to impacts under the Project.

Biological Resources

Similar to the Project, the Aquatic Resource Avoidance Alternative would include ground-disturbing activities on the site and, thus, would have the potential to impact special-status plants, Crotch's bumble bee, special-status branchiopod species, monarch butterfly, western spadefoot, northwestern pond turtle, nesting birds and raptors protected under the MBTA and CFGC, roosting bats, and American badger. Because the Alternative would preserve 51.6 additional acres of natural habitat and aquatic resources than the Project, the Alternative would result in fewer impacts related to special-status species, aquatic resources, and tree removal. However, while the Alternative would result in fewer impacts related to on-site aquatic resources, the off-site improvements would still occur under the Alternative. Therefore, if any associated aquatic resources are located within such areas and are determined to be jurisdictional, a Section 404 and/or 401 permit would be required. Because the Alternative would still include ground-disturbing activities, and a Section 404 permit from the U.S. Army Corps of Engineers (USACE), Section 401 permit from the Regional Water Control Quality Board (RWQCB), and a tree permit would still be required under the Alternative, Mitigation Measures 4.3-1(a), 4.3-1(b), 4.3-2, 4.3-3, 4.3-4, 4.3-5, 4.3-6, 4.3-7(a) through (c), 4.3-8, 4.3-9, 4.3-10(a) through (c), and 4.3-12 would still be

required. Therefore, overall impacts to Biological Resources would be fewer under the Aquatic Resource Avoidance Alternative compared to the Project.

Cultural and Tribal Cultural Resources

Similar to the Project, the Aquatic Resource Avoidance Alternative would include development of the site with residential uses. However, as noted above, the Alternative would result in a decreased overall disturbance area within the site relative to the Project. Nonetheless, Mitigation Measures 4.4-1, 4.4-2(a) through (e), and 4.4-3(a) and (b) would still apply to the Alternative to mitigate the potentially significant impact associated with the disturbance or destruction of archaeological resources, human remains, or tribal cultural resources during construction. Overall, because of the reduced disturbance area that would occur under the Alternative, potential impacts related to Cultural and Tribal Cultural Resources could be fewer under the Aquatic Resource Avoidance Alternative compared to the Project.

Geology and Soils

As noted above, the Aquatic Resource Avoidance Alternative would include a smaller overall area of disturbance compared to the Project. Consequently, the potential for grading and other ground-disturbing activities to destroy a unique paleontological resource or site or unique geologic feature would be decreased. Similarly, the Alternative would have a slightly decreased potential to become unstable as a result of lateral spreading and subsidence/settlement. Nonetheless, because construction and grading activities would still occur on the eastern portion of the site, Mitigation Measure 4.5-4 would still be required. In addition, Mitigation Measure 4.5-3, which requires implementation of geotechnical recommendations, would still be required to ensure the residential buildings under the Alternative would be provided adequate structural support. Overall, impacts related to Geology and Soils would be fewer under the Aquatic Resource Avoidance Alternative compared to the Project.

Hazards and Hazardous Materials

As discussed above, the Aquatic Resource Avoidance Alternative would entail a similar buildout of the Project as proposed. Although the overall disturbance area for the Alternative would be decreased as compared to the Project, the RECs identified on the site related to the previous dairy farm and significant regulatory non-compliance regarding wastewater management, as well as the stockpiled soils, would still be considered potentially significant impacts under the Alternative. In addition, the Alternative would include abandonment of existing wells and septic tanks, and development of off-site improvements. Thus, the Alternative would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and Mitigation Measures 4.6-2(a) through (d) and 4.6-2(f) would still be required. However, the Aquatic Resource Avoidance Alternative would not include demolition of the existing structures, and, therefore, construction workers would not come into contact with, and be exposed to, asbestos-containing materials (ACMs) or lead-based paints (LBPs) materials present in the on-site buildings. Thus, Mitigation Measure 4.6-2(e) would not be required under the Alternative. Overall, impacts related to Hazards and Hazardous Materials would be fewer under the Aquatic Resource Avoidance Alternative compared to the Project.

Hydrology and Water Quality

Given that the Aquatic Resource Avoidance Alternative would include a smaller overall area of disturbance compared to the Project, the potential for the Alternative to result in construction or operational impacts related to water quality would be decreased. In addition, because a smaller

portion of the site would be developed with impervious surfaces, the potential for changes in drainage patterns and increases in stormwater runoff rates would be reduced compared to the Project. Nonetheless, Mitigation Measures 4.7-1, 4.7-2(a), 4.7-2(b), 4.7-4, 4.7-5(a), and 4.7-5(b) would still be required to ensure that impacts to on-site drainage patterns, as well as to water quality during project construction and operation, would not occur. Overall, because the reduced surface area proposed under the Alternative would generate less stormwater runoff, impacts related to Hydrology and Water Quality under the Aquatic Resource Avoidance Alternative would be fewer compared to the Project.

Land Use and Planning/Population and Housing

Similar to the Project, the Aquatic Resource Avoidance Alternative would include development of the site with residential uses. However, as noted above, the Alternative would result in the development of 77 fewer units than the Project. Thus, the Alternative would have a reduced impact on inducing substantial unplanned population growth either directly or indirectly, and would result in a reduced impact on cumulative unplanned population growth. However, the significant and unavoidable and cumulatively considerable and significant and unavoidable impacts identified for the Project would still occur under the Alternative, as the Alternative would develop 422 total residences while the current RR General Plan designation would limit development on the site to a maximum of 58 residential units.[1] Overall, impacts related to Land Use and Planning/Population and Housing under the Aquatic Resource Avoidance Alternative would be fewer than impacts under the Project.

Noise

The Aquatic Resource Avoidance Alternative would include a smaller overall area of disturbance compared to the Project and, thus, the potential to result in construction and operational impacts related to noise generation would be decreased. However, Mitigation Measures 4.9-1(a) and 4.9-1(b), which reduce impacts associated with a temporary increase in ambient noise levels, would still be required, and the significant and unavoidable impact identified for the Project would still occur under the Alternative. Overall, development of the Aquatic Resource Avoidance Alternative would result in fewer impacts related to Noise as compared to the Project.

Transportation

As previously discussed, the Aquatic Resource Avoidance Alternative would include buildout of the site with 77 fewer residential units than the Project. Traffic associated with construction activities under the Alternative would be similar as compared to the Project, and the Alternative would still require Mitigation Measure 4.11-1 to prepare a construction signing and traffic control plan. In addition, because the Alternative would still result in on-site development and increase in demand for pedestrian and bicycle facilities, transit ridership, and demand for transit stops near the Project, Mitigation Measures 4.11-2 and 4.11-3(a) and (b) would also still be required to reduce potential conflicts with a program, plan, ordinance or policy addressing the circulation system during operations, and the impacts would remain similar to the Project.

As discussed above, the Aquatic Resource Avoidance Alternative would include the development of 77 fewer units as compared to the Project. According to the Governor's LCI Technical Advisory, one method of reducing residential VMT is to increase residential density. However, the Alternative would maintain the same overall residential density as the Project, consisting of

[1] As discussed above under the No Project (Buildout Pursuant to General Plan) Alternative, the actual development potential of the site with the existing RR designation would be 35 residential units due to a reasonably developable area of 71.3 acres.

approximately seven du/ac within the areas proposed for residential development. Therefore, the Alternative would result in a similar impact related to VMT (i.e., conflicting with CEQA Guidelines Section 15064.3, subdivision (b)), and the impact would remain significant and unavoidable, with Mitigation Measure 4.11-4 still required. Overall, impacts related to Transportation under the Aquatic Resource Avoidance Alternative would be similar to the Project.

7.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. The environmentally superior alternative is generally the alternative that would be expected to generate the least amount of significant impacts. Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets the goals or needs of the Lead Agency. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." In this case, the No Project (No Build) Alternative would be considered the environmentally superior alternative, because the site is assumed to remain in its current condition under the alternative. Consequently, many of the impacts resulting from the Project would not occur under the Alternative, as shown in Table 7-2 below.

The No Project (No Build) Alternative would not meet any of the Project objectives except for Objective #5 and #6 related to preservation of open space due to the preservation of existing natural habitat throughout the site. Because the No Project (Buildout Pursuant to General Plan) Alternative and Aquatic Resource Avoidance Alternative would both include development of residential uses within the same development footprint as the Project, the Alternatives would meet more of the Project objectives than the No Project (No Build) Alternative.

Although the No Project (No Build) Alternative would result in fewer impacts related to six of the 10 issue areas and would reduce significant and unavoidable impacts related to Noise and Land Use and Planning/Population and Housing, because the Alternative is a "no project" alternative, the Alternative would not be considered the environmentally superior alternative. As discussed throughout this chapter and shown in Table 7-2, the Aquatic Resource Avoidance Alternative would result in fewer impacts than the Project related to eight of the 10 issue areas, and would result in similar impacts as the Project for the remaining two issue areas for which project impacts were identified. However, under the Aquatic Resource Avoidance Alternative, the significant and unavoidable impacts related to Aesthetics; Air Quality, GHG Emissions, and Energy; Land Use and Planning/Population and Housing; Noise; and Transportation would still occur. Because the Aquatic Resource Avoidance Alternative would include development of the site with the proposed uses on the eastern portion of the site, most Project objectives would be met. However, because the Aquatic Resource Avoidance Alternative would include the development of fewer residential units than the Project, the Alternative would not satisfy Objective #2.

Based on the above, the Aquatic Resource Avoidance Alternative would be considered the Environmentally Superior Alternative. As discussed above, the significant and unavoidable impacts related to Aesthetics; Air Quality, GHG Emissions, and Energy; Land Use and Planning/Population and Housing; Noise; and Transportation that were identified for the Project would still occur under Aquatic Resource Avoidance Alternative.

Table 7-2
Comparison of Environmental Impacts for Project Alternatives

Impact		Project	No Project (No Build) Alternative	No Project (Buildout Pursuant to General Plan) Alternative	Aquatic Resource Avoidance Alternative
		4.1 Aesthetics			
4.1-1	In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings.	**Significant and Unavoidable**	None	**Fewer**	**Fewer**
4.1-3	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	**Significant and Unavoidable**	None	**Fewer**	**Fewer**
4.1-4	Long-term changes in visual character associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove.	**Significant and Unavoidable**	None	**Fewer**	**Fewer**
4.1-5	Creation of new sources of light or glare associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove.	Less Than Cumulatively Considerable with Mitigation	None	Fewer	Fewer
		4.2 Air Quality, Greenhouse Gas Emissions, and Energy			
4.2-7	Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	**Cumulatively Considerable and Significant and Unavoidable**	None	**Similar**	**Similar**
		4.3 Biological Resources			
4.3-1	Impacts to special-status plant species either directly (e.g., threaten to eliminate a plant community) or through substantial habitat modifications.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-2	Have a substantial adverse effect, either directly or through habitat modifications, on Crotch's bumblebee.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-3	Have a substantial adverse effect, either directly or through habitat modifications, on special-status branchiopod species.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-4	Have a substantial adverse effect, either directly or through habitat modifications, on monarch butterfly.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-5	Have a substantial adverse effect, either directly or through habitat modifications, on western spadefoot.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-6	Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-7	Have a substantial adverse effect, either directly or through habitat modifications, on nesting birds and raptors protected under the MBTA and CFGC.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-8	Have a substantial adverse effect, either directly or through habitat modifications, on roosting bats.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-9	Have a substantial adverse effect, either directly or through habitat modifications, on American badger.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-10	Have a substantial adverse effect on any riparian habitat or other sensitive natural community, or State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Less Than Significant with Mitigation	None	Similar	Fewer
4.3-12	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or have a substantial adverse effect on the environment by converting oak woodlands or impacting individual trees.	Less Than Significant with Mitigation	None	Similar	Fewer
		4.4 Cultural and Tribal Cultural Resources			
4.4-1	Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5.	Less Than Significant with Mitigation	None	Fewer	Similar

Table 7-2
Comparison of Environmental Impacts for Project Alternatives

Impact	Project	No Project (No Build) Alternative	No Project (Buildout Pursuant to General Plan) Alternative	Aquatic Resource Avoidance Alternative
4.4-2 Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries.	Less Than Significant with Mitigation	None	Similar	Fewer
4.4-3 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074.	Less Than Significant with Mitigation	None	Similar	Fewer
4.5 Geology and Soils				
4.5-3 Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, or be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, creating substantial risks to life or property.	Less Than Significant with Mitigation	None	Similar	Fewer
4.5-4 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less Than Significant with Mitigation	None	Similar	Fewer
4.6 Hazards and Hazardous Materials				
4.6-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.	Less Than Significant with Mitigation	None	Fewer	Fewer
4.7 Hydrology and Water Quality				
4.7-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction.	Less Than Significant with Mitigation	None	Fewer	Fewer
4.7-2 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations.	Less Than Significant with Mitigation	None	Fewer	Fewer
4.7-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Less Than Significant with Mitigation	None	Fewer	Fewer
4.7-5 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows, or in flood hazard, tsunami, or seiche zone, risk release of pollutants due to project inundation.	Less Than Significant with Mitigation	None	Fewer	Fewer
4.8 Land Use and Planning/Population and Housing				
4.8-3 Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).	**Significant and Unavoidable**	None	Fewer	**Fewer**
4.8-5 Cumulative unplanned population growth.	**Cumulatively Considerable and Significant and Unavoidable**	None	Fewer	**Fewer**
4.9 Noise				
4.9-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	**Significant and Unavoidable**	None	Fewer	**Fewer**

Table 7-2
Comparison of Environmental Impacts for Project Alternatives

Impact	Project	No Project (No Build) Alternative	No Project (Buildout Pursuant to General Plan) Alternative	Aquatic Resource Avoidance Alternative
4.11 Transportation				
4.11-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system during construction activities.	Less Than Significant with Mitigation	None	Similar	Similar
4.11-2 Conflict with a program, plan, ordinance, or policy addressing roadway, bicycle, and pedestrian facilities, during operations.	Less Than Significant with Mitigation	None	Similar	Similar
4.11-3 Conflict with a program, plan, ordinance, or policy transit facilities and services, during operations.	Less Than Significant with Mitigation	None	Similar	Similar
4.11-4 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	**Significant and Unavoidable**	None	**Similar**	**Similar**

Note: No Impact = "None;" Greater than the Project = "Greater," Less than Project = "Fewer;" and Similar to Project = "Similar"

Bold: Significant and Unavoidable impact(s) determined for the Project would still be expected to occur under the Alternative.

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