

Summer Flats Project

PLNG23-006

SCH# 2024100487

Draft Environmental Impact Report

Prepared for the
City of Elk Grove



CITY OF
ELK GROVE
PROUD HERITAGE. BRIGHT FUTURE.

April 2026

Prepared by



RANEY
PLANNING & MANAGEMENT, INC.

25
years

1501 SPORTS DRIVE, SUITE A, SACRAMENTO, CA 95834

Summer Flats Project Draft Environmental Impact Report

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Lead Agency

City of Elk Grove
Development Services Department
8401 Laguna Palms Way
Elk Grove, CA 95758

Sarah Kirchgessner
Senior Planner
(916) 478-2245
skirchgessner@elkgrove.gov

Prepared By

Raney Planning and Management, Inc.
1501 Sports Drive, Suite A
Sacramento, CA 95834
(916) 372-6100

Contacts:

Rod Stinson
Vice President/Air Quality Specialist

Angela DaRosa
Division Manager/Air Quality Specialist

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1. Introduction

1. INTRODUCTION

1.1 TYPE AND PURPOSE OF THE EIR

The Summer Flats 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, codified at 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 Flats Project (Project) evaluated herein and has the principal responsibility for approving 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 and must certify the EIR prior to taking action on the Project entitlements.

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 approval of 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, environmental impacts, mitigation measures, 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 *Project-level EIR* pursuant to CEQA Guidelines Section 15161, which is an analysis that examines the environmental impacts of a specific development project. A *Project-level EIR* focuses primarily on the changes in the environment that would result from the development of the Project, and examines all phases of the Project, including planning, construction, and operation. The focus of the EIR, and the topics addressed herein, are described under Section 1.5, Scope of the EIR, of this chapter, below.

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 Central Valley Regional Water Quality Control Board (RWQCB), Sacramento Metropolitan Air Quality Management District (SMAQMD), 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 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 possible 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 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

A summary of the Project location, description, and approvals is provided below. 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.

Project Location and Setting

The approximately 27.6-acre Project site (site) is located immediately northeast of the Waterman Road/Rancho Drive intersection, within the East Elk Grove Sub-Area of the Eastern Elk Grove Community Plan, in the City of Elk Grove, California. The site, comprised of three parcels identified by Assessor's Parcel Numbers (APNs) 127-0150-001, -002, and -009, is bounded by Waterman Road along the site's western boundary. The City of Elk Grove General Plan designates a portion of the western side of the site (APNs 127-0150-001 and -002) as Low Density Residential (LDR) and the remainder of the site is designated Resource Management and Conservation (RMC). Similarly, a portion of the western side of the site is zoned Low Density Residential – Maximum Four Dwelling Units per Acre (RD-4) and the remainder of the site is zoned Open Space (O).

The site consists of flat to gently sloping grassland. Within the grassland are numerous depressions where pooling has occurred. A total of approximately 3.90 acres of aquatic resources, primarily comprised of seasonal wetlands, vernal pools, and detention basin, were delineated within the site and immediate surrounding areas. Aboveground distribution power lines and utility poles, as well as barbed wire fencing, exist along Waterman Road, parallel to the site's western boundary. Three easements containing transmission towers, utility poles, and overhead power transmission lines, owned by Sacramento Municipal Utility District (SMUD), the U.S. Bureau of Reclamation (USBR), and Pacific Gas & Electric Co. (PG&E), are generally located within the eastern half of the site. A number of non-native trees are located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers.



The site is bounded by single-unit residences to the east and south; Waterman Road to the west; and vacant land to the north. Other surrounding uses include a grocery store and smaller commercial businesses located further south along Elk Grove Boulevard; and a single-unit residential neighborhood, the Hilltop Cemetery, and Jack E. Hill Park to the west, across Waterman Road.

Project Description

In general, the Project would consist of a subdivided single-unit residential community, comprised primarily of 120 single-unit residential lots. In addition, the Project would include new internal roadways and frontage improvements, associated utility improvements, 14.7 acres of open space (Lot A), an open space path and pedestrian paseo, and new landscaping. The open space Lots A and B, as well as Landscape Corridor Lots C, J, and M, would be publicly owned and maintained.

Site access would be provided by way of two newly constructed streets (i.e., Streets A and C), which would extend eastward into the site from Waterman Road. In addition, Street B would be constructed within the site in a north-to south direction to connect to Street A to the north and Street C to the south, with the three streets combining to form a looped interior road system that would provide access to all proposed residences. Streets A, B, and C would each consist of a 44-foot-wide right-of-way (ROW), comprised of two 14-foot-wide vehicle lanes, a three-foot-wide shoulder with an attached curb and gutter on each side of the road, which would connect to a five-foot-wide sidewalk. Additionally, the Project includes frontage improvements along Waterman Road to widen the roadway into a four-lane arterial road.

The Project would expand the Waterman Road ROW along the frontage of the property, ranging in width from 72 to 73 feet and including a total of four 11-to 11.5-foot vehicle travel lanes (two in each direction), one 11-foot median with a portion designed as a two-way left turn lane, a five-foot-wide shoulder, and an attached three-foot-wide curb and gutter. The proposed frontage improvements would also include a 32.5-foot-wide landscape corridor, featuring a 10-foot-wide Class I multi-use path. The existing half ROW is 25 feet along the Project frontage. An additional 28-foot dedication would be required to include a 53-foot half ROW on the east side of Waterman Road fronting the Project.

The Project would require discretionary approvals, including City approval of General Plan Amendments, Community Plan Amendments, Rezone, Tentative Subdivision Map, Subdivision Design Review, and Master Home Plan Design Review. In addition, the Project would require approval of a Design Exception to eliminate the 122-foot and 166-foot stubs at the terminus of Street A and Street C at the north and south ends of the development as depicted on the Tentative Subdivision Map. Instead, a fire access gate would be provided between the end of each stub and the open-space multi-use trail to provide an internal pull through for fire equipment.

The details of the Project, including required approvals, are described in further detail 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. Please see Section 1.7 regarding the NOP process for the Project. 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.

When the Draft EIR is completed, a Notice of Completion will be filed with the SCH and a public notice of availability will be 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 of copies of the Draft EIR 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 period of 45 days, during which time reviewers may submit comments on the document to the lead agency. The lead agency must respond to comments in writing. 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 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.

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.

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*. Chapter 5 of the EIR presents a discussion of the environmental effects not found to be significant. 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 effects of the proposed project on the environment. 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.

The baseline condition is the physical condition that exists when the NOP is published. The NOP for the Project was published on October 11, 2024. Therefore, conditions existing at that time are considered to be the baseline against which changes that would result from the Project are evaluated. Impacts could include both direct and 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” sections throughout 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 from October 11, 2024, to November 12, 2024, for a total of 30 days (see Appendix A of this EIR). 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 an NOP scoping meeting for the EIR during the NOP review period on October 30, 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 meeting, is provided in Section 1.8 below.

1.8 SUMMARY OF COMMENTS RECEIVED ON THE NOP

During the NOP public review period from October 11, 2024, to November 12, 2024, the City of Elk Grove received eight comment letters. In addition, verbal comments were received from two Elk Grove residents at the public scoping meeting held on October 30, 2024. A copy of each letter is provided in Appendix B of this EIR. The comment letters and verbal comments received were issued 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;
- Central Valley RWQCB – Peter Minkel;
- Department of Toxic Substances Control (DTSC) – Tamara Purvis; and
- Native American Heritage Commission (NAHC) – Pricilla Torres-Fuentes.

Individuals

- Chris Dugan;
- Mark Forster;
- Georgie Osborn; and
- Katie Williams.

The following list, categorized by issue, summarizes the environmental concerns brought forth in the comment letters received on the scope of the EIR. Comments outside of the purview of CEQA or that are speculative in nature have not been included, as, according to Section 15145 of CEQA Guidelines, CEQA does not require evaluation of speculative impacts.

<u>Project Description</u> (Chapter 3)	Concerns related to: • Accurately describing the Project, including the Project's characteristics, existing site features, development features, and construction activities.
<u>Aesthetics</u> (Chapter 4.1)	Concerns related to: • The Project's visual character and consistency with City standards. • Lighting impacts.
<u>Air Quality, Greenhouse Gas Emissions, and Energy</u> (Chapter 4.2)	Concerns related to: • Construction related dust impacts. • Generation of significant greenhouse gas (GHG) emissions. • Potential emissions caused by vehicle miles traveled (VMT).
<u>Biological Resources</u> (Chapter 4.3)	Concerns related to: • Preservation of open space, wildlife habitat, and aquatic resources (e.g., wetlands). • Impacts to protected wildlife and plant species.



(Continues on next page)

<u>Cultural and Tribal Cultural Resources</u> (Chapter 4.4)	Concerns related to: • Tribal consultation should be conducted.
<u>Hazards and Hazardous Materials</u> (Chapter 4.6)	Concerns related to: • Potential contamination impacts associated with the site's agricultural use. • Potential contamination related to fill materials. • Potential impacts related to disturbance of contaminated soils from nearby former landfill site.
<u>Hydrology and Water Quality</u> (Chapter 4.7)	Concerns related to: • Increased off-site runoff. • Wastewater discharges and compliance with the California State Water Resources Control Board (SWRCB) Antidegradation Policy. • Compliance with all federal, state, and regional permitting regulations. • Contaminants in stormwater and the associated impacts to people, wildlife, and groundwater. • Consistency with the Central Valley RWQCB Basin Plan. • Impacts to the quality of surface and groundwater
<u>Noise</u> (Chapter 4.9)	Concerns related to: • Construction causing noise pollution for existing neighborhoods. • Noise levels associated with increased traffic in the Waterman Meadows Neighborhood.
<u>Public Services and Utilities</u> (Chapter 4.10)	Concerns related to: • Capacity of local schools.
<u>Transportation</u> (Chapter 4.11)	Concerns related to: • Potentially increased traffic safety hazards at Waterman Road, Elk Grove Boulevard, and Bond Road, as well as nearby intersections. • Impacts related to increased VMT. • Compliance with City roadway standards. • Traffic impacts associated with the proposed Street A and Street C. • Cumulative traffic impacts associated with planned development in the region. • Transportation Impact Fees. • Sight and distance issues at the Rancho Drive intersection.

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 through the City's website at the following page:

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



or at the 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 Sarah Kirchgessner, Senior Planner
8401 Laguna Palms Way
Elk Grove, CA 95758
Email: skirchgessner@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 chapter includes a summary of the alternatives to the Project, and areas of known controversy.

Chapter 3 – Project Description

Provides a detailed description of the Project, including the location, background information, major objectives, and technical characteristics of the Project.

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 for the Project. 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 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 Flats 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 27.6-acre Project site (site), identified by Assessor's Parcel Numbers (APNs) 127-0150-001, -002, and -009, is located immediately northeast of the Waterman Road/Rancho Drive intersection, within the East Elk Grove Sub-Area of the Eastern Elk Grove Community Plan in the City of Elk Grove, California. The Elk Grove General Plan designates the western portion of the site (APNs 127-0150-001 and -002) as Low Density Residential (LDR) and the remainder of the site is designated Resource Management and Conservation (RMC). Similarly, the western portion of the site is zoned Low Density Residential – Maximum Four Dwelling Units per Acre (RD-4) and the remainder of the site is zoned Open Space (O).

The site currently consists of flat to gently sloping grassland. Three easements containing transmission towers, utility poles, and overhead power transmission lines owned by Sacramento Municipal Utility District (SMUD), the U.S. Bureau of Reclamation (USBR), and Pacific Gas & Electric Co. (PG&E) are generally located within the eastern half of the site. A number of non-native trees are located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers. A total of approximately 3.90 acres of aquatic resources, primarily comprised of seasonal wetlands, vernal pools, and detention basin, were delineated within the site and immediate surrounding areas.

Surrounding existing land uses include a single-unit residential neighborhood immediately to the east; scattered single-unit residences to the south, with a grocery store and smaller commercial businesses located further south along Elk Grove Boulevard; a single-unit residential neighborhood, the Hilltop Cemetery, and Jack E. Hill Park to the west, across Waterman Road; and vacant land to the north.

Project Description

The Project would require General Plan Amendments, Community Plan Amendments, and a Rezone. The Project would require City approval of a General Plan Amendment and Community Plan Amendment to redesignate the site from LDR and RMC to MDR and RMC, as well as a text amendment to increase the maximum residential buildout for the East Elk Grove Sub-Area. Similarly, the Project would require City approval of a Rezone to modify the site's zoning from the



RD-4 and O districts to the Medium Density Residential – Maximum 12 Dwelling Units per Acre (RD-12) and O districts.

The Project would include a Small Lot Tentative Subdivision Map, which would subdivide the site into a total of 132 lots, including 120 single-unit residential lots, a water quality/detention basin, open space areas, and landscape areas. Access to the site would be provided by way of two newly constructed streets, which would extend eastward into the site from Waterman Road. Development of the Project would also include various associated improvements, such as frontage improvements along Waterman Road, sidewalks, a 32.5-foot-wide landscape corridor featuring a 10-foot-wide Class I multi-use path, an open space trail and pedestrian paseo, 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. In addition, the Project would include water, sanitary sewer, and stormwater improvements, including the construction of water lines, sewer lines, and on-site storm drain pipeline infrastructure. The existing overhead utility lines along the site's western boundary, to which the Project would connect, would be undergrounded. In addition, a Subdivision Design Review and a Master Home Design Review would be required for the Project.

Project Approvals

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

- General Plan/Eastern Elk Grove Community Plan Amendment from LDR (7.3 acres) and RMC (19.6 acres) to MDR (11.9 acres) and RMC (14.7 acres);
- General Plan/Eastern Elk Grove Community Plan Amendment (text) to increase the maximum residential buildout for the East Elk Grove Sub-Area;
- Rezone from RD-4 (7.3 acres) and O (19.6 acres) to RD-12 (11.9 acres) and O (14.7 acres);
- Tentative Subdivision Map;
- Subdivision Design Review; and
- Master Home Plan Design Review.

In addition, the Project would require the approval of a design exception for elimination of the 122-foot and 166-foot stubs at the terminus of Street A and Street C at the north and south ends of the development as depicted on the Tentative Subdivision Map. Instead, a fire access gate would be provided between the end of each stub and the open-space multi-use trail to provide an internal pull through for fire equipment.

A number of other agencies will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This EIR will provide environmental information to the aforementioned agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of Project implementation. The agencies could include, but may not be limited to, the following:

- Cosumnes Community Services District (CCSD)
- Regional Water Quality Control Board (RWQCB) – Central Valley Region:
- Sacramento Area Sewer District (SacSewer);
- Sacramento Metropolitan Air Quality Management District (SMAQMD);
- California Department of Fish and Wildlife (CDFW);
- U.S. Fish and Wildlife Service (USFWS);



- Federal Emergency Management Agency (FEMA);
- Elk Grove Water District (EGWD)/ Sacramento County Water Agency (SCWA); and
- U.S. Army Corps of Engineers (USACE)

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: 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/Zoning) Alternative; and
- Increased Density Alternative.
- Clustered Development 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 would not be developed. As described in this EIR, the site currently consists of flat to gently sloping grassland. Aboveground distribution power lines and utility poles, as well as barbed wire fencing, exist along Waterman Road, parallel to the site's western boundary. Three easements containing transmission towers, utility poles, and overhead power transmission lines are generally located within the eastern half of the site. A number of non-native trees are located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers. Seasonal wetlands, seasonal wetland swales, and vernal pools are located throughout the site. Because residential uses would not be developed under the No



Project (No Build) Alternative, which is the main focus of Objectives #1-3 and #5-9, the Alternative would not meet the majority of the project objectives. However, the Alternative would partially satisfy Objective #4 due to the preservation of natural habitat and wetland resources throughout the site.

No Project (Buildout Pursuant to General Plan/Zoning) Alternative

The No Project (Buildout Pursuant to General Plan/Zoning) Alternative would consist of buildout of the site according to the current City of Elk Grove General Plan land use designations and zoning. The Elk Grove General Plan designates a portion of the western side of the site (APNs 127-0150-001 and -002) as LDR and the remainder of the site is designated RMC. Similarly, a portion of the western side of the site is zoned Low Density Residential – Maximum Four Dwelling Units per Acre (RD-4) and the remainder of the site is zoned Open Space (O).

The Alternative would result in 7.3 acres of LDR/RD-4 uses and 19.6 acres of RMC/O uses. The LDR land use designation provides for single-unit detached residential development. Lot sizes typically range from 6,000 to 10,000 square feet (sf). The LDR land use designation allows for a residential density between 4.1 du/ac to seven du/ac. However, the RD-4 district is intended for detached single- and two-unit residences up to a maximum density of four du/ac. Pursuant to the residential zoning district for the site and assuming a maximum density of four du/ac, the Alternative could result in a maximum of 29 residential units. Because the number of residential units to be developed under the Alternative would remain consistent with the number of units allocated for the site in the General Plan for the total East Elk Grove Sub-Area, the Alternative would not require a General Plan/Eastern Elk Grove Community Plan Amendment to increase the maximum residential buildout for the East Elk Grove Sub-Area.

The RMC designation provides for passive open spaces uses, including lands used for habitat mitigation, wetland protection, and floodways, while the O zoning district is applied to lands owned by public and private entities that have been reserved for open space uses such as landscape corridors, habitat mitigation, wetlands, wildlife habitat and corridors, lakes, trails, and similar uses. As such, under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative, a maximum of 29 residential units could be developed within the 27.6-acre site, as well as 19.6 acres of open space. In comparison, the Project would include a total of 120 single-unit residences and 14.7 acres of open space.

In addition, because the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would retain the existing General Plan land use designations, residential uses would be located in the western portion of the site. The eastern and southern portions of the site, which contain the majority of on-site wetland resources, would remain as open space, consistent with the existing RMC designation, which is intended to preserve the on-site aquatic resources. Therefore, the Alternative would avoid impacts to the wetland resources and vernal pools.

Because the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include development of the site with residential uses, avoid wetland resources, provide open space and circulation improvements, and would have access to existing open space, trails, and commercial centers, Objectives #1, #4, #7, #8, and #9 would be met. However, Objectives, #2, #3, and #6 would not be satisfied, given that the alternative would not include MDR uses and would not include 120 single-unit residences. Furthermore, because the Alternative would include development of LDR units, which would be larger and less affordable by design as compared to the MDR units under the proposed project, the Alternative would be less successful in meeting



Objective #5 related to providing attainable single-unit residential housing for middle-income households.

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 2.8 percent reduction in VMT per service population. By increasing the density by 0.5 dwelling unit per acre (du/ac) above 9.1 du/ac, a reduction of approximately one percent in residential VMT can be achieved, up to a maximum reduction of 30 percent. As such, in order to reach a 2.8 percent reduction in VMT per service population, the Increased Density Alternative would require an approximately 1.4 du/ac increase in residential density within the proposed 11.9-acre residential portion of the site, for a total residential density of approximately 11.48 du/ac. The increase in density would result in a total of 136 units within the 11.9-acre residential portion of the site, which would be an increase in 16 units as compared to the Project. The remaining site acreage would be left as undeveloped open space or serve as a water quality/detention basin. As such, while the development footprint under the Increased Density Alternative would be similar to the Project, the Alternative would result in a slightly higher residential density as compared to the Project in order to reduce impacts related to VMT to a less-than-significant level. However, the residential density of approximately 11.8 would remain consistent with the proposed MDR land use designation, which allows for a maximum residential density of 15.0 du/ac.

The Alternative would be capable of fully meeting all project objectives, as the Alternative would provide a MDR development in the vicinity of existing commercial centers, parks, and transit options; contribute to the diversity of single-unit detached housing options in the area, provide access to open space and trail amenities; provide circulation improvements; and would be developed within the same footprint as the Project.

Clustered Development Alternative

The Clustered Development 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. Unlike the Project, the Clustered Development Alternative would retain the existing General Plan land use designation of RMC on-site, which is intended to preserve the on-site aquatic resources. Similar to the Project, the existing RMC area would retain the existing transmission towers and overhead power lines and contain the proposed water quality/detention basin. The Clustered Development Alternative would include the same number of residential units as the Project outside of the existing RMC land use designation, clustered in the western portion of the site. As such, the Clustered Development Alternative would include a total of 120 residential units within the 7.3-acre portion outside of the existing RMC area, for a total residential density of approximately 16.4 du/ac. Such residential density would be consistent with the HDR land use designation, which is generally characterized by attached homes, townhomes, garden apartments, and apartments. As such, the Alternative would require a General Plan Amendment to designate the site from the existing LDR designation to HDR.

Because the Clustered Development Alternative would include residential development in the vicinity of existing commercial centers, parks, and transit options; provide access to open space and trail amenities; provide circulation improvements; avoid impacts to wetland resources; and provide ample open space, Objectives #1, #4, #7, #8, and #9 would be fully satisfied. However, the Alternative would not be capable of meeting Objectives #2, #3, #5, and #6, as the Alternative would not include MDR development and would not include single-unit detached residences.



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." 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. However, the No Project (No Build) Alternative would not meet the majority of the project objectives.

As discussed in detail in the Alternatives Analysis chapter of this EIR and presented in Table 7-3 therein, the Clustered Development Alternative would result in fewer impacts related to greenhouse gas (GHG) emissions, special-status branchiopod species, western spadefoot, northwestern pond turtle, and aquatic resources, and would reduce VMT impacts to a less-than-significant level. The Clustered Development Alternative results in similar impacts to the Project for the majority of remaining issue areas for which project impacts were identified. However, under the Clustered Development Alternative, the significant and unavoidable impact related to Air Quality, GHG Emissions, and Energy would still occur. Overall, the Clustered Development Alternative would be 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:

- Accurately describing the Project, including the Project's characteristics, existing site features, development features, and construction activities.
- The Project's visual character and consistency with City standards.
- Lighting impacts.
- Construction related dust impacts.
- Generation of significant GHG emissions.
- Potential emissions caused by vehicle miles traveled (VMT).
- Tribal consultation should be conducted.
- Potential contamination impacts associated with the site's agricultural use.
- Potential contamination related to fill materials.
- Potential impacts related to disturbance of contaminated soils from nearby former landfill site.
- Increased off-site runoff.
- Wastewater discharges and compliance with the California State Water Resources Control Board (SWRCB) Antidegradation Policy.
- Compliance with all federal, state, and regional permitting regulations.



- Contaminants in stormwater and the associated impacts to people, wildlife, and groundwater.
- Consistency with the Central Valley RWQCB Basin Plan.
- Impacts to the quality of surface and groundwater.
- Construction causing noise pollution for existing neighborhoods.
- Noise levels associated with increased traffic in the Waterman Meadows Neighborhood.
- Capacity of local schools.
- Potentially increased traffic safety hazards at Waterman Road, Elk Grove Boulevard, and Bond Road, as well as nearby intersections.
- Impacts related to increased VMT.
- Compliance with City roadway standards.
- Traffic impacts associated with the proposed Street A and Street C.
- Cumulative traffic impacts associated with planned development in the region.
- Transportation Impact Fees.
- Sight and distance issues at the Rancho Drive intersection.



**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 an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.	LS	<i>None required.</i>	N/A
4.1-2 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LS	<i>None required.</i>	N/A
4.1-3 Long-term changes in visual character associated with cumulative development of the Project in combination with future buildout of the City of Elk Grove.	LCC	<i>None required.</i>	N/A
4.1-4 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.	LCC	<i>None required.</i>	N/A
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	<i>None required.</i>	N/A
4.2-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation.	LS	<i>None required.</i>	N/A

N/A = Not Applicable; NI = No Impact; 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
4.2-3 Expose sensitive receptors to substantial pollutant concentrations.	LS	<i>None required.</i>	N/A
4.2-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LS	<i>None required.</i>	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	<i>None required.</i>	N/A
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).	LCC	<i>None required.</i>	N/A
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 building permits, subject to review and approval by the City of Elk Grove Community Development Department: The project shall be constructed in accordance with the EV Ready standards included in Appendix A4 of the 2022	CC/SU

N/A = Not Applicable; NI = No Impact; 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
		CALGreen Code (i.e., within the garage of each proposed residential unit, a dedicated 208/240-volt branch circuit shall be installed in the raceway required by Chapter 4 of the 2022 CALGreen Code); and The Project shall either (i) be designed such that the project is built all-electric or (ii) 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 electricity, 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	

N/A = Not Applicable; NI = No Impact; 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
		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) <i>Real</i>: 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) <i>Additional</i>: 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) <i>Permanent</i>: GHG reductions and removal enhancements are not reversible or, when	

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Summary of Impacts and Mitigation Measures**

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		<i>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.</i> <i>(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.</i> <i>(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.</i> <i>(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</i>	

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Summary of Impacts and Mitigation Measures**

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		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	

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		<i>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).</i> Verification and Independent Review of GHG Credits <i>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</i>	

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Summary of Impacts and Mitigation Measures**

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		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	

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		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). Or	

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		<i>Prior to issuance of any grading or building permits, if the City's Climate Compass has been adopted by City Council, the project applicant shall demonstrate compliance with the applicable GHG reduction strategies and actions set forth therein.</i> 4.2-7(c) Implement Mitigation Measure 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) <i>Prior to approval of any improvement plans, a special-status plant survey shall be conducted in areas where the final development footprint was not surveyed during the 2024 protocol special-status plant survey. The survey shall be conducted at the time of year when special-status/rare plant species are both evident and identifiable, and shall be conducted by a qualified botanist for all areas of suitable habitat for special-status plants within the final development footprint.</i> <i>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</i>	LS

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		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	

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		<i>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 legenera. 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.</i> <i>If any special-status plants cannot be avoided and grading or other disturbance would occur within mapped population areas, including the mapped populations of legenera 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:</i> <i>1. <u>Preservation:</u> Identify existing, unprotected populations of the special-status plant that would be impacted by the Project in the</i>	

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		<i>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,</i>	

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		<i>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.</i> 2. <u>Relocation or Translocation:</u> <i>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</i>	

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		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 may be allowed in 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	

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		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 by a qualified biologist and the project contractor. 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;	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		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.	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.	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>Initial ground-disturbing activities associated with development of the site (e.g., grading, vegetation removal, staging) shall take place between September 1 and March 31 (i.e., outside the colony active period) to avoid potential impacts on Crotch's bumble bee. 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 with 10 or more years of experience conducting biological resource surveys within California shall conduct a preconstruction survey for Crotch's bumble bees in the area(s) proposed for impact.</i> <i>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</i>	

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		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. 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 bee 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	

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		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 Crotch's 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.	

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		<i>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.</i> <i>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.</i> <i>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</i>	

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		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.	S	4.3-3 Prior to the commencement of any construction activities, 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 the USACE determines that the vernal pools that would be filled as part of the Project are waters of the U.S., as such consultation is required pursuant to Mitigation Measure 4.3-10(a), FESA consultation shall be conducted as part of the USACE permitting process under FESA Section 7. If the USACE determines that the vernal pools are not waters of the U.S., the Project proponent shall consult with the USFWS under FESA Section 10. Regardless of the consultation method, if vernal pool fairy or vernal pool tadpole shrimp are found during the surveys, the USFWS shall assign measures to avoid, minimize, and mitigate impacts to vernal pool fairy shrimp and	LS

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		<i>vernal pool tadpole shrimp and shall require compensatory mitigation. Compensatory measures shall include the following:</i> <i>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.</i> <i>The Project proponent shall abide by mitigation measures developed during the course of the FESA consultation. 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.</i> <i>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.</i>	

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		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 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.	LS

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		<i>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.</i>	
4.3-5 Have a substantial adverse effect, either directly or through habitat modifications, on western spadefoot.	S	4.3-5 <i>Prior to the commencement of construction activities, a survey of all suitable aquatic habitat within the Biological Resources Assessment (BRA) study area (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 suitable aquatic habitat 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</i>	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
		<i>Distribution of the Western Spadefoot (Spea hammondi) 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.</i> <i>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.</i> <i>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:</i> <i>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</i>	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>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. CDFW may require the biologist to have a Scientific Collecting Permit that allows handling of western spadefoot prior to approval.</i> <i>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:</i> <i>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</i>	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>local land trust to preserve land; or any other method acceptable to USFWS.</i> <i>If western spadefoot is found adjacent to but outside of the work area, the following measures shall be implemented:</i> <i>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.</i> <i>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.</i> <i>If western spadefoot move into the work area at any time, work shall cease, and the Project biologist shall be notified. A CDFW-approved</i>	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>biologist shall relocate the individual to suitable habitat outside of the impact area.</i>	
4.3-6 Have a substantial adverse effect, either directly or through habitat modifications, on northwestern pond turtle.	S	4.3-6 <i>If construction would affect inundated portions of the detention basin 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 inundated portions of the detention basin. 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.</i> <i>If northwestern pond turtles are observed using inundated portions of the detention basin 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:</i> <i>Project work within 325 feet of the detention basin 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 the detention basin may occur outside of this work window.</i>	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
		- 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 inundated portions of the detention basin 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	

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Summary of Impacts and Mitigation Measures**

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		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 inundated portions of the detention basin 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 within 24 hours prior to construction in areas within 325 feet of the limits of the detention basin. 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	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>individual to suitable habitat outside of the proposed impact area prior to construction.</i> <i>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.</i>	
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) <i>If ground disturbance or other construction activities are proposed during the bird nesting season (February 1 through 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, pre-construction (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:</i> <i>0.25-mile for tree-nesting raptors, and</i> <i>500 feet for all other species.</i>	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>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:</i> <i>• <u>Active raptor nests:</u> 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 that the young have fledged and/or are no longer dependent on the nest;</i> <i>• <u>Occupied burrowing owl burrows:</u> A minimum buffer of 250 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;</i>	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• <u>Active tricolored blackbird nests:</u> 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; • <u>Active nests of other birds:</u> 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 that 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. 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 (late September to February 1) 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	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		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): 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	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		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: - o 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. - o The land shall be protected through either fee title or a conservation easement ("legal agreement") acceptable to the City. - o The legal agreement shall be recordable and contain an accurate legal description of the mitigation land. - o 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.	

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		- o 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. - o 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. - o 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. - o The City shall be named a beneficiary under any legal agreement conveying the interest in the mitigation land to an entity	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		acceptable to the City, and the City shall receive indemnification and defense, and in any legal agreement. - o 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 commencement of construction activities (e.g., grading activities, infrastructure construction). 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	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>that the mitigation strategy is suitable for both species.</i>	
4.3-8 Have a substantial adverse effect, either directly or through habitat modifications, on roosting bats.	LS	<i>None required.</i>	N/A
4.3-9 Have a substantial adverse effect, either directly or through habitat modifications, on American badger.	LS	<i>None required.</i>	N/A
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) <i>Prior to the approval of any improvement plans, the project proponent shall submit a formal Aquatic Resources Delineation to the U.S. Army Corps of Engineers (USACE) for verification purposes and determination as to whether the Project activities would 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.</i>	LS

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		4.3-10(b) <i>If a Clean Water Act (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. waters of the U.S., the Project proponent 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.</i>	
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	LS	None required.	N/A

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tree preservation policy or ordinance, or have a substantial adverse effect on the environment by converting oak woodlands or impacting individual trees.			
4.3-13 Cumulative loss of habitat for special-status species.	LCC	<i>None required.</i>	N/A
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.	LS	<i>None required.</i>	N/A
4.4-2 Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines, Section 15064.5 or disturb human remains, including those interred outside of dedicated cemeteries.	S	4.4-2(a) <i>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</i>	LS

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		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 site 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.	

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		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 site, 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 shall retain a qualified paleontologist to evaluate the resource. 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 qualified paleontologist shall prepare a recovery plan immediately and in accordance with Society of Vertebrate Paleontology guidelines (SVP 2010). All grading and construction activities shall cease and further permits shall not be issued until the recovery	

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		<i>plan is complete. 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. 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 would be required.</i> 4.4-2(c) <i>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. The Project contractor shall distribute the brochure to all construction personnel and supervisors who will have the potential to encounter cultural resources. Proof of compliance, in the form of a signed agreement stating understanding of the brochure, 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:</i>	

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		• Types of cultural resources expected in the region and/or site; • 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 Archaeological 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	

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		<i>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</i>	

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		<i>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.</i> <i>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.</i> <i>4.4-2(e) The following language shall be noted on Project improvement plans, subject to review and approval by the City of Elk Grove Community Development Department, and shall be implemented during Project construction:</i> <i>The Project proponent shall give the Wilton Rancheria at least two (2) weeks notice prior to initiating ground-disturbing activities. The purpose of the notification will be to allow the Wilton Rancheria the opportunity to conduct monitoring. In the event that the Wilton Rancheria does not respond, or a tribal monitor does not report to the job site at the</i>	

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Summary of Impacts and Mitigation Measures**

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<i>scheduled time, construction activities may proceed without monitoring as long as at no time, regardless of the presence or absence of a tribal monitor, shall suspected tribal cultural resources be mishandled or disrespected.</i> <i>A contracted Tribal Monitor(s) shall monitor the vegetation grubbing, stripping, grading, trenching, and other ground-disturbing activities in the site. All ground-disturbing activities shall be subject to Tribal Monitoring unless otherwise determined unnecessary by the Wilton Rancheria.</i> <i>The Tribal Monitor shall have the authority to temporarily pause ground disturbance within 100 feet of a discovery for a duration long enough to examine the resource. If no resources are identified, then construction activities shall proceed, and no agency notifications are required. In the event that a tribal cultural resource is identified, the Tribal Monitor shall flag off the discovery location and notify the City immediately to coordinate regarding appropriate and respectful treatment pursuant to State law.</i> <i>The Tribal Monitor shall wear appropriate construction safety equipment including steel-toed boots, construction vest, and hard hat.</i>	
4.4-3 Cause a substantial adverse change in the significance of a	S	4.4-3 Implement Mitigation Measures 4.4-2(a) through 4.4-2(e).	LS

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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
tribal cultural resource, defined in PRC Section 21074.			
4.4-4 Cause a cumulative loss of cultural and tribal cultural resources.	LS	<i>None required.</i>	N/A
4.5 Geology and Soils			
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.	LS	<i>None required.</i>	N/A
4.5-2 Result in substantial soil erosion or the loss of topsoil.	LS	<i>None required.</i>	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 <i>In conjunction with the submittal of any improvement plans, 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</i>	LS

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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
		<i>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.</i> <i>The design-level geotechnical engineering report shall address, at a minimum, the following:</i> <i>• Compaction specifications and subgrade preparation for on-site soils;</i> <i>• Structural foundations;</i> <i>• Grading practices;</i> <i>• Liquefaction potential; and</i> <i>• Expansive/unstable soils, including fill.</i> <i>Prior to issuance 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.</i>	

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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
4.5-4 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	S	4.5-4 Implement Mitigation Measure 4.4-2(b).	LS
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 Prior to commencement of construction activities, the Project applicant shall hire a licensed well contractor to obtain a well abandonment permit from Sacramento County Environmental Health Division (SCEHD) for the on-site water well, and properly abandon the on-site water well in accordance with Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III). Verification of abandonment shall be submitted for review and approval of the City of Elk Grove Community Development Department and SCEHD.	LS
4.6-3 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LS	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
4.6-4 Cumulative exposure to potential hazards, and increases in the transport, storage, and use of hazardous materials.	LS	<i>None required.</i>	N/A
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	LS

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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
		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.	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 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.	LS
4.7-3 Substantially decrease groundwater supplies or	LS	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
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.			
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.	LS	<i>None required.</i>	N/A
4.7-6 Cumulative impacts related to the violation of water quality	LS	<i>None required.</i>	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
standards or waste discharge requirements, groundwater quality, management, and recharge, and impacts resulting from the alteration of existing drainage patterns.			
4.8 Land Use and Planning / Population and Housing			
4.8-1 Physically divide an established community.	LS	<i>None required.</i>	N/A
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	<i>None required.</i>	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).	LS	<i>None required.</i>	N/A
4.8-4 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	NI	<i>None required.</i>	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
4.8-5 Cumulative unplanned population growth.	LCC	<i>None required.</i>	N/A
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.	S	4.9-1 Prior to approval of grading and/or building permits, 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 daytime hours of 7:00 AM and 7:00 PM daily; • Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' 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; and • Stationary equipment (e.g., power generators, compressors) shall be located at the furthest practical distance from nearby noise-sensitive receptors or sufficiently shielded to reduce noise.	LS

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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
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	<i>None required.</i>	N/A
4.9-3 Generation of excessive groundborne vibration or groundborne noise levels.	LS	<i>None required.</i>	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	<i>None required.</i>	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	LS	<i>None required.</i>	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
objectives for fire protection services.			
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.	LS	<i>None required.</i>	N/A
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	<i>None required.</i>	N/A
4.10-4 Result in substantial adverse physical impacts associated with the provision of new or physically altered	LS	<i>None required.</i>	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
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.			
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	LS	<i>None required.</i>	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
which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or performance objectives for maintenance of other government services.			
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	<i>None required.</i>	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	<i>None required.</i>	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	LS	<i>None required.</i>	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
demand in addition to the provider's existing commitments.			
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 comply with federal, State, and local management and reduction statutes and regulations related to solid waste.	LS	<i>None required.</i>	N/A
4.10-10 Cumulative impacts to public services.	LS	<i>None required.</i>	N/A
4.10-11 Increase in demand for utilities and service systems associated with the Project, in combination with future buildout of the City of Elk Grove.	LCC	<i>None required.</i>	N/A
4.11 Transportation			
4.11-1 Conflict with a program, plan, ordinance, or policy 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	LS

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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
		<i>plan shall include (but not be limited to) items such as:</i> <i>• Estimate of the number and size of trucks per day entering and leaving the site;</i> <i>• Identification of arrival/departure times that would minimize traffic impacts;</i> <i>• Approved truck circulation patterns;</i> <i>• Locations of staging areas, which shall be limited to areas anticipated for disturbance;</i> <i>• Locations of employee parking and methods to encourage carpooling and use of alternative transportation;</i> <i>• Methods for partial/complete street closures (e.g., timing, signage, location and duration restrictions);</i> <i>• Criteria for use of flaggers and other traffic controls;</i> <i>• Preservation of safe and convenient passage for bicyclists and pedestrians through/around construction areas;</i> <i>• Monitoring for roadbed damage and timing for completing repairs;</i> <i>• Limitations on construction activity during peak/holiday weekends and special events;</i> <i>• Preservation of emergency vehicle access;</i> <i>• Removing traffic obstructions during emergency evacuation events; and</i>	

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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
		- 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.	LS	None required.	N/A
4.11-3 Conflict with a program, plan, ordinance, or policy addressing transit facilities and services during operations.	S	4.11-3(a) Implement Mitigation Measure 4.11-4. 4.11-3(b) 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	LS

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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
		<i>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.</i>	
4.11-4 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	S	4.11-4 <i>Prior to approval of the 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 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 carshare 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.</i> <i>Any costs for the formation of the new or annexation into an existing CFD, and approval of such annual</i>	SU

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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
		<i>CFD special taxes, or administration of the sum of money deposited to fund the City's costs of providing transit services, carshare 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 shall be recorded.</i>	
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	<i>None required.</i>	N/A

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3. Project Description

3. PROJECT DESCRIPTION

3.1 INTRODUCTION

The Project Description chapter of the EIR provides a comprehensive description of the Summer Flats Project (Project) in accordance with CEQA Guidelines Section 15124. A detailed description of the Project location, Project setting and surrounding uses, Project objectives, Project components, and required Project approvals is presented below.

3.2 PROJECT LOCATION

The approximately 27.6-acre Project site (site) is located immediately northeast of the Waterman Road/Rancho Drive intersection, within the East Elk Grove Sub-Area of the Eastern Elk Grove Community Plan in the City of Elk Grove, California (see Figure 3-1 and Figure 3-2). The site, comprised of three parcels identified by Assessor's Parcel Numbers (APNs) 127-0150-001, -002, and -009, is bounded by Waterman Road along the site's western boundary. The Elk Grove General Plan designates a portion of the western side of the site (APNs 127-0150-001 and -002) as Low Density Residential (LDR) and the remainder of the site is designated Resource Management and Conservation (RMC). Similarly, a portion of the western site is zoned Low Density Residential – Maximum Four Dwelling Units per Acre (RD-4) and the remainder of the site is zoned Open Space (O).

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 following sections describe the existing setting of the site and the surrounding land uses in the Project vicinity. 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.

Site Characteristics

The site currently consists of flat to gently sloping grassland, with an elevation ranging from 50 to 65 feet above mean sea level (amsl). Within the grassland are numerous depressions where pooling has occurred. Aboveground distribution power lines and utility poles, as well as barbed wire fencing, exist along Waterman Road, parallel to the site's western boundary. Three easements containing transmission towers, utility poles, and overhead power transmission lines owned by Sacramento Municipal Utility District (SMUD), the U.S. Bureau of Reclamation (USBR), and Pacific Gas & Electric Co. (PG&E) are generally located within the eastern half of the site. A number of non-native trees are located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers.



**Figure 3-1
Regional Vicinity Map**



A total of approximately 3.90 acres of aquatic resources were delineated within the site and immediate surrounding areas. The aquatic resources are largely comprised of seasonal wetlands, vernal pools, and detention basin, but also include a seasonal wetland swale, drainage ditch, and roadside ditches.

Surrounding Land Uses

Surrounding existing land uses include a single-unit residential neighborhood immediately to the east; scattered single-unit residences to the south, with a grocery store and smaller commercial businesses located further south along Elk Grove Boulevard; a single-unit residential neighborhood, the Hilltop Cemetery, and Jack E. Hill Park to the west, across Waterman Road; and vacant land to the north. Table 3-1 describes the land use and zoning designations of the parcels surrounding the site.

Table 3-1 Surrounding Land Use and Zoning Designations		
Parcel Location	General Plan / Eastern Elk Grove Community Plan Land Use	Zoning
North of the site	Parks and Open Space (P/OS)	O
East of the site	LDR	Low Density Residential – Maximum Five Dwelling Units per Acre (RD-5) and Low Density Residential – Maximum Seven Dwelling Units per Acre (RD-7)
South of the site	LDR, RMC, and P/OS	RD-4, O, and Park and Recreation (PR)
West of the site	Estate Residential (ER) and Public Services (PS)	Very Low Density Residential – Maximum Three Dwelling Units per Acre (RD-3) and O

3.4 PROJECT OBJECTIVES

The following Project objectives have been developed by the Project applicant:

- 1) To thoughtfully develop an underutilized infill property while recognizing and respecting its physical constraints and opportunities.
- 2) To develop the site in a mix of Medium Density Residential (MDR) and Resource Management and Conservation (RMC) land uses.
- 3) To provide for the development of for-sale single-unit residences at a density that is approximately 8-12 dwelling units per acre on the MDR-designated portion of the site.
- 4) To provide for open space uses, such as the restoration, creation, and preservation of seasonal wetlands habitat and stormwater detention areas to serve the Project, on the RMC-designated portion of the site, which is not feasible for more intensive development due to presence of biological resources and overhead power lines.
- 5) To help the City of Elk Grove meet its need for “Missing Middle” housing by providing attainable single-unit housing for middle-income households, including existing residents and public and private-sector employees who work in the City, who are seeking to purchase a home in Elk Grove.
- 6) To provide approximately 120 clustered single-unit detached residences on the site. (For an example of clustered single-unit detached housing, see Figure 34 of the City of Elk Grove’s 2020 report entitled “Housing For Middle-Income Households – An Economic Analysis of Missing-Middle Housing.”)



- 7) To develop residential units in close proximity to commercial uses, parks, schools and Old Town Elk Grove to make bicycle and pedestrian trips a feasible and likely alternative to automobile trips.
- 8) To promote the use of non-automotive forms of travel by providing connections to existing and planned bicycle and pedestrian facilities in the vicinity of the site consistent with the City's Bicycle, Pedestrian, and Trails Master Plan.
- 9) To promote the use of public transit by building residences within a short walking distance of, and connecting pedestrian trails with direct access to, existing transit services providing regional commutes (E-Tran 16 to downtown Sacramento and Route 116 to the Cosumnes River College Light Rail Station) to reduce single-occupancy vehicular trips.

3.5 PROJECT COMPONENTS

The Project would consist of a subdivided single-unit residential community, comprised of 120 residential lots, as well as new internal roadways and frontage improvements, associated utility improvements, 14.7 acres of open space, an open space trail and pedestrian paseo, and new landscaping. The Applicant requests City approval of a General Plan Amendment, Community Plan Amendment, Rezone, Tentative Subdivision Map, Subdivision Design Review, and Master Home Plan Design Review. The Project components, including the required discretionary approvals, are described in further detail below.

General Plan Amendment, Community Plan Amendment, and Rezone

The site is currently designated LDR and RMC by the City of Elk Grove General Plan. In accordance with Elk Grove Municipal Code (EGMC) Section 23.16.120, the Project would require City approval of a General Plan Amendment and Community Plan Amendment to redesignate the site MDR and RMC (see Figure 3-3). Similarly, in accordance with EGMC Section 23.16.110, the Project would require City approval of a Rezone to modify the site's zoning from the RD-4 and O districts to the Medium Density Residential – Maximum 12 Dwelling Units per Acre (RD-12) and O districts (see Figure 3-4).

The Project's General Plan Amendment (text) also seeks to increase the maximum residential buildout for the East Elk Grove Sub-Area of the Eastern Elk Grove Community Plan by 91 units, for a new total maximum residential buildout of 4,507 units.

Small Lot Tentative Subdivision Map

The Project would include a Small Lot Tentative Subdivision Map, prepared in accordance with EGMC Chapter 22.16, to subdivide the site into a total of 132 lots, including 120 single-unit residential lots, a water quality/detention basin, open space areas, and landscape areas (see Figure 3-5).

It should be noted that the open space Lots A and B, as well as Landscape Corridor Lots C, J, and M, would be publicly owned and maintained. The proposed open space and landscaping are discussed further under the Open Space and Landscaping section below.

Access, Circulation, and Parking

Access to the site would be provided by way of two newly constructed streets (i.e., Streets A and C), which would extend eastward into the site from Waterman Road (see Figure 3-5).



Figure 3-3
General Plan and Community Plan Amendment

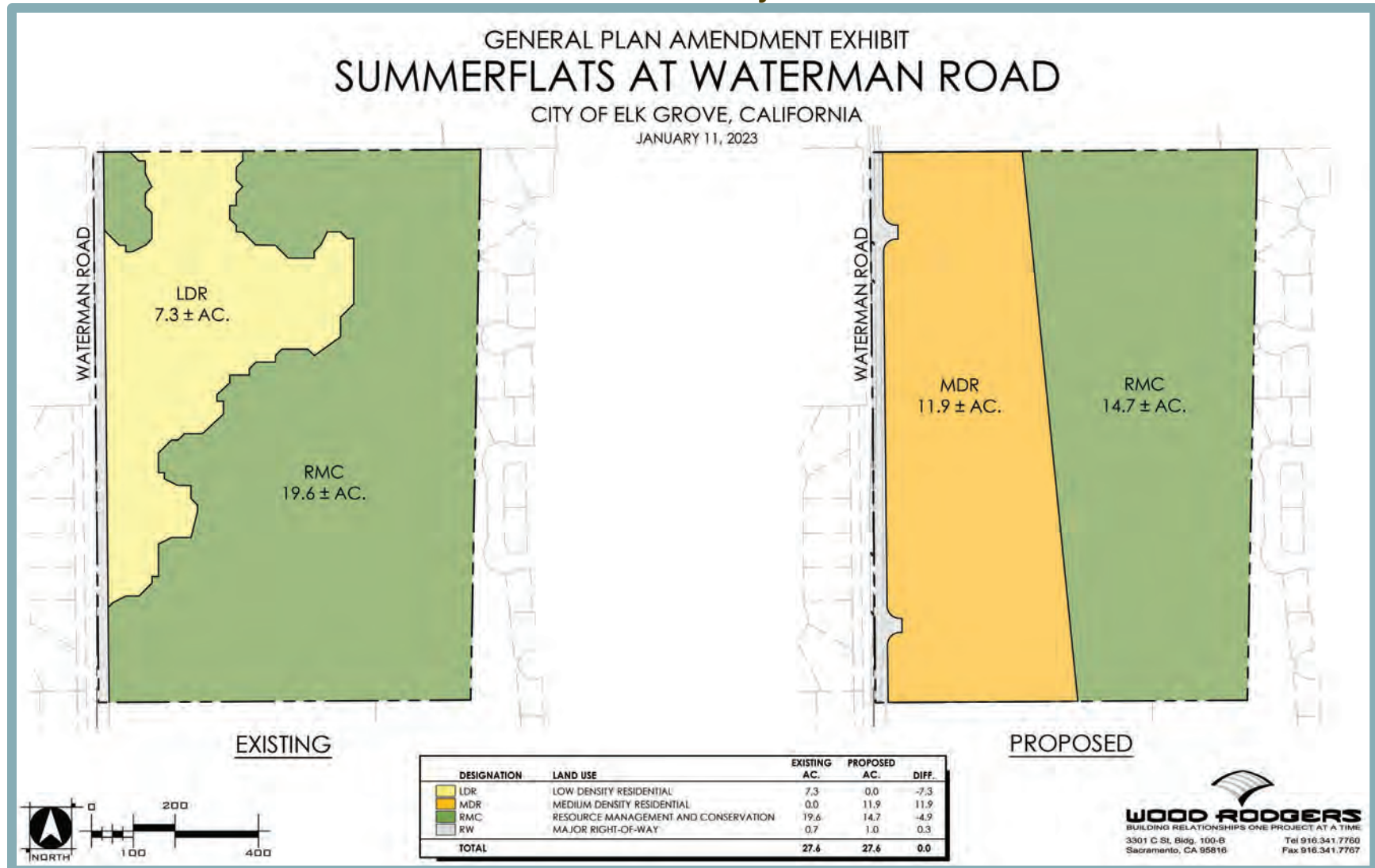


**Figure 3-4
Rezone**

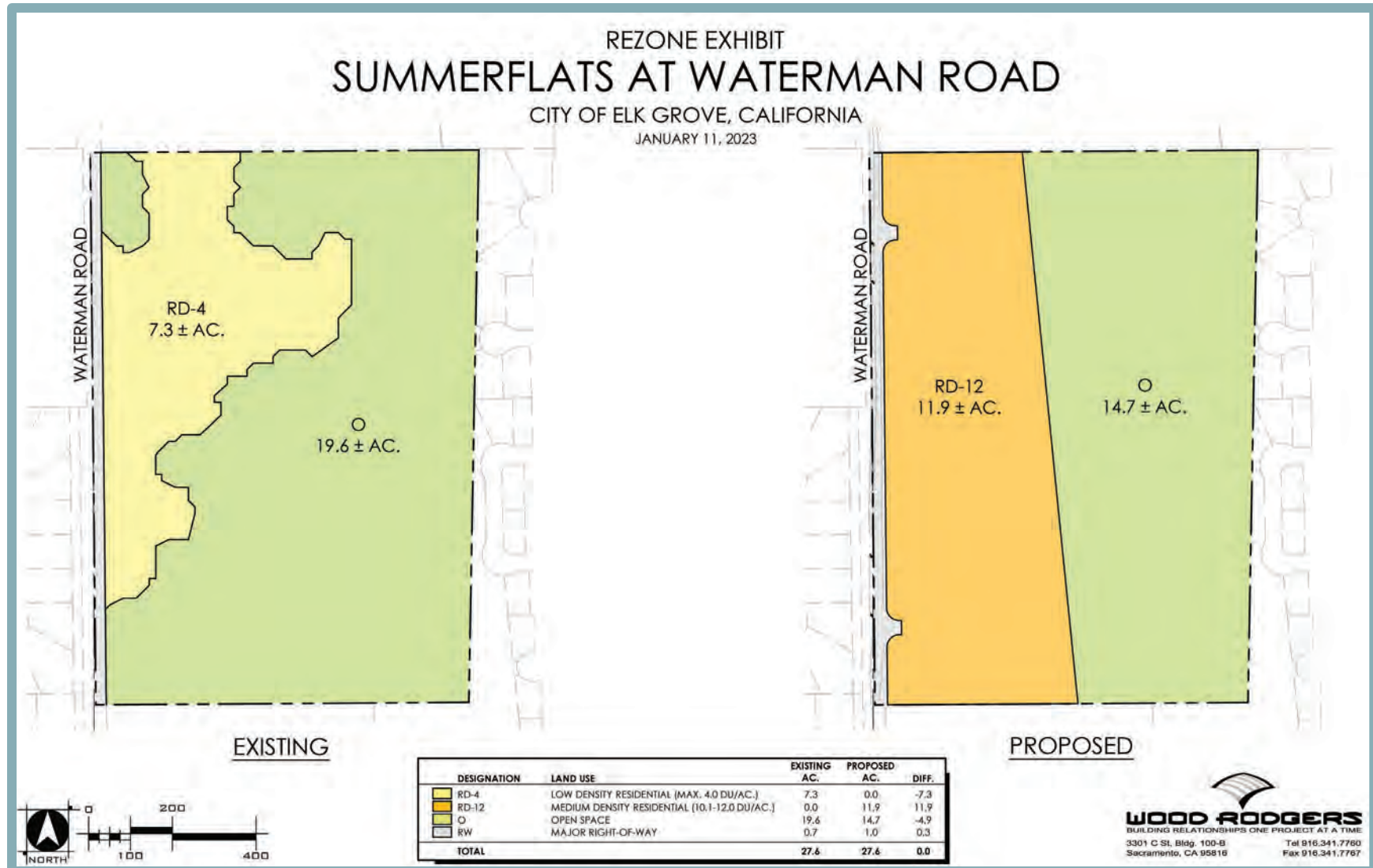
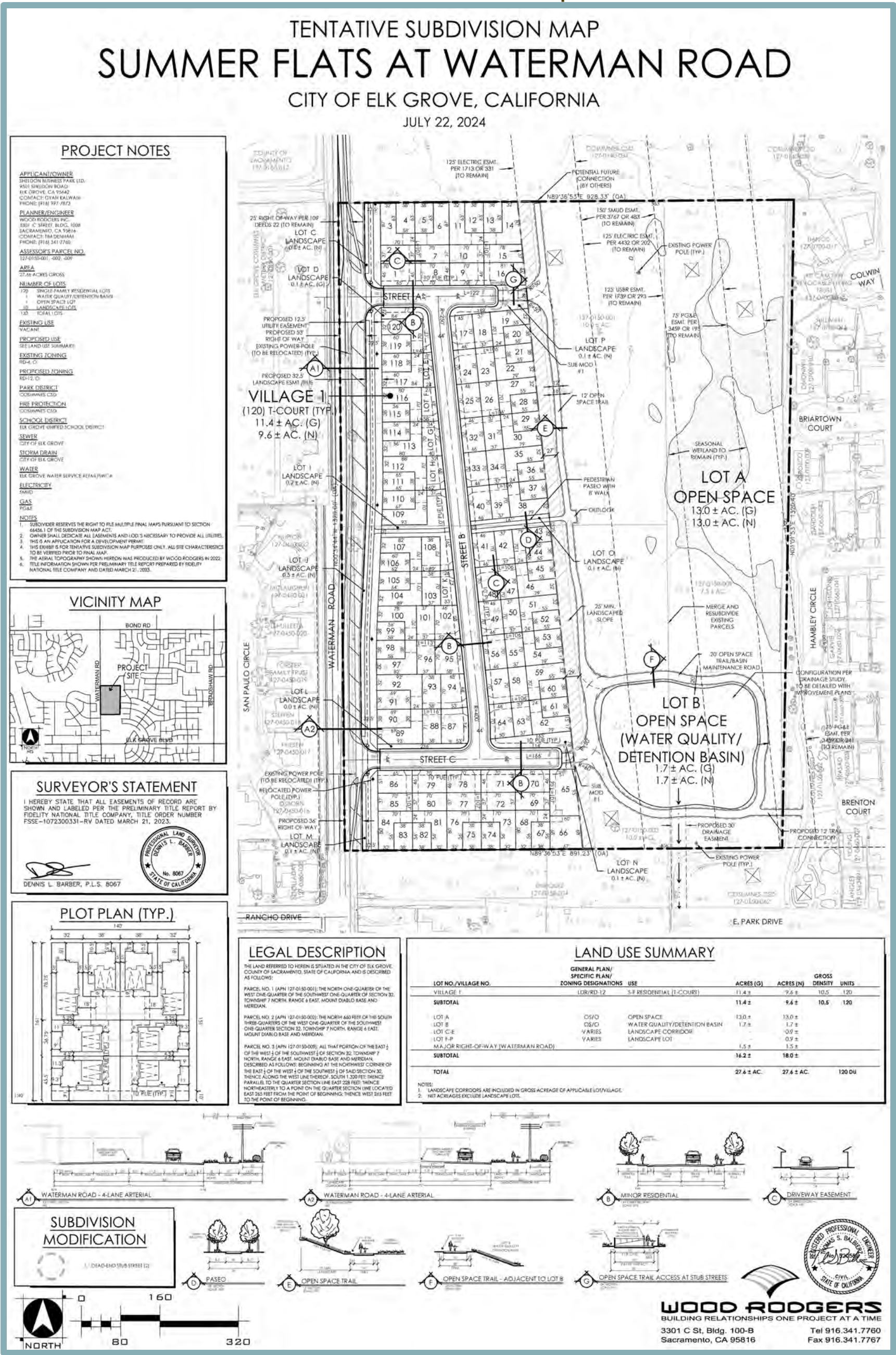


Figure 3-5
Tentative Subdivision Map



In addition, Street B would be constructed within the site in a north-to south direction to connect to Street A to the north and Street C to the south, with the three streets combining to form a looped interior road system that would provide access to all proposed residences.

Streets A, B, and C would each consist of a 44-foot-wide right-of-way (ROW), comprised of two 14-foot-wide vehicle lanes, a three-foot-wide shoulder with an attached curb and gutter on each side of the road, which would connect to a five-foot-wide sidewalk. The Project includes frontage improvements along Waterman Road to widen the roadway into a four-lane arterial road. Additionally, the Project Includes a Design Exception for elimination of the 122-foot and 166-foot stubs at the terminus of Street A and Street C as shown in Figure 3-5. Instead, a fire access gate would be provided between the end of each stub and the open-space multi-use trail to provide an internal pull through for fire equipment.

The Project would expand the Waterman Road ROW along the frontage of the property, ranging in width from 72 to 73 feet and including a total of four 11- to 11.5-foot vehicle travel lanes (two in each direction) and one 11-foot median with a portion designed as a two-way left turn lane, a five-foot-wide shoulder, and an attached three-foot-wide curb and gutter. The proposed frontage improvements would also include a 32.5-foot-wide landscape corridor featuring a 10-foot-wide Class I multi-use path. The existing half ROW is 25 feet along the Project frontage. An additional 28-foot dedication would be required to include a 53-foot half ROW on the east side of Waterman Road fronting the Project.

With respect to parking, as previously discussed, each unit would feature a 400-square-foot (sf), two-vehicle garage. As discussed further under the Open Space and Landscaping section below, in addition to the aforementioned sidewalks along the new streets, the Project would provide pedestrian access through an open space trail and pedestrian paseo.

Utilities

Water service for the Project would be provided by the Sacramento County Water Agency (SCWA), as the site is located within the SCWA Zone 40 service area, and by the Elk Grove Water District (EGWD), as the site is located within EGWD Service Area 2. An existing 16-inch water line is located within Waterman Road (see Figure 3-6). From the existing water line, new eight-inch water lines would extend into the site within the new roads, to which each proposed residence would connect by way of new lateral pipelines.

With respect to wastewater, the Project would be provided sanitary sewer conveyance services by Sacramento Area Sewer District (SacSewer). Similar to the proposed water infrastructure, new eight-inch sewer lines would extend into the site within the new roads, to which each proposed residence would connect through new laterals. The new sewer lines would ultimately connect to an existing eight-inch sewer line in Waterman Road.

With respect to storm drainage facilities, stormwater runoff from new impervious surfaces within the developed site would be directed to drain inlets within paved areas and flow to new 12- to 24-inch drainage pipes within the site (Lot B), before being routed to a new water quality/detention basin located in the southeast corner of the site, prior to being discharged to an existing stormwater drainage ditch through a new drainage outfall which would be constructed at the southern end of the water quality/detention basin (see Figure 3-7).



Figure 3-6
Summer Flats Preliminary Sewer and Water Exhibit

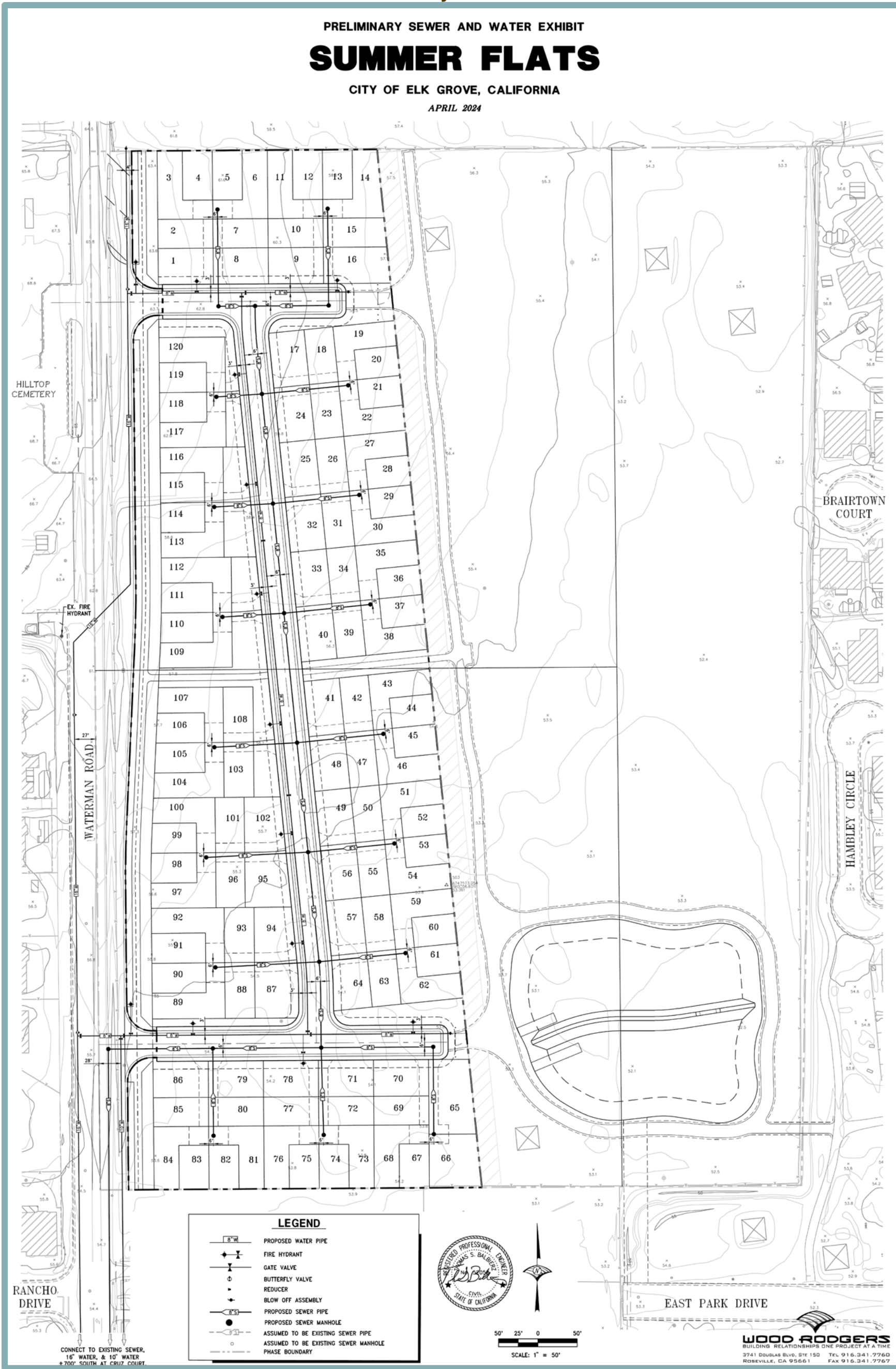
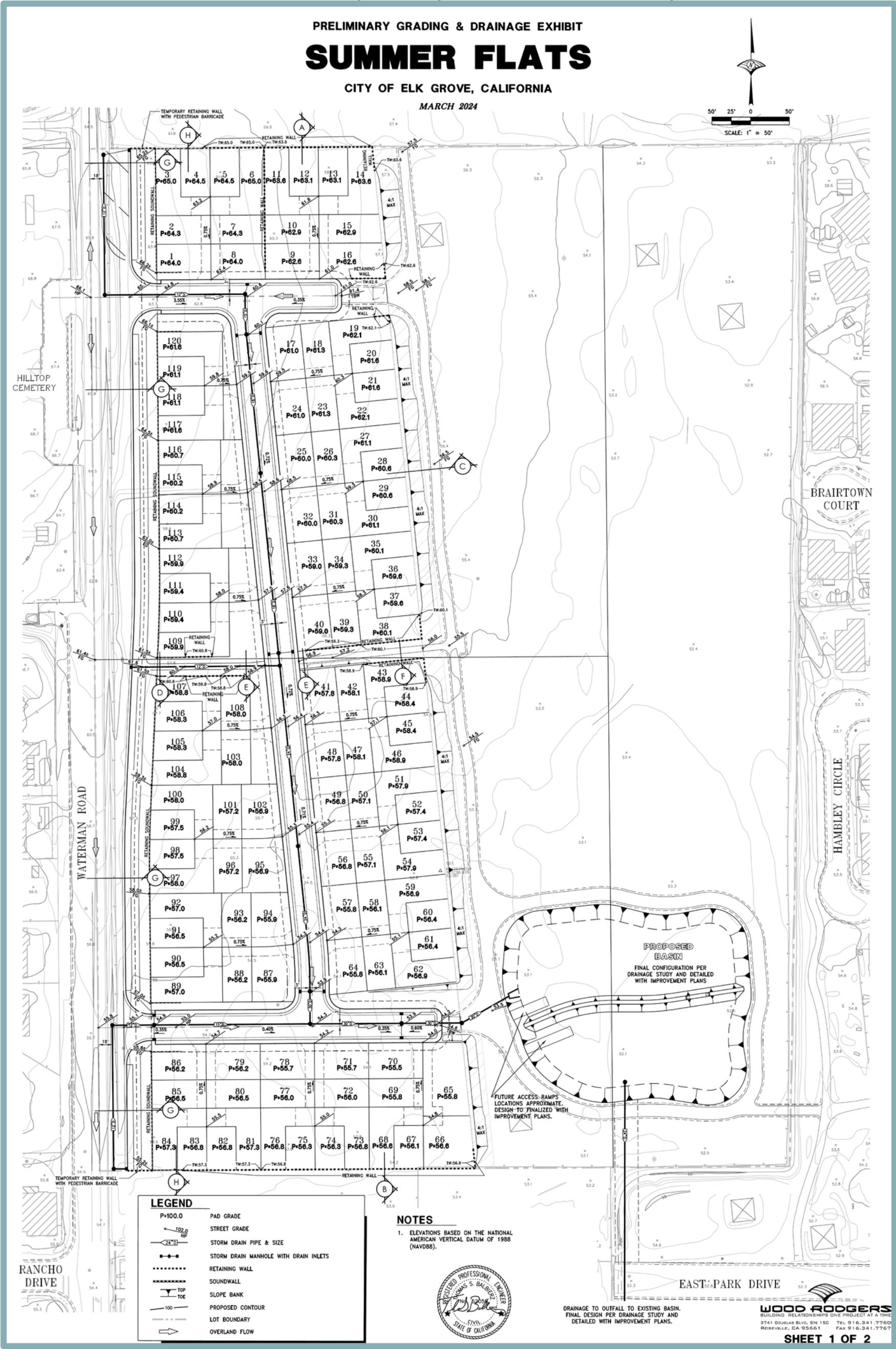


Figure 3-7
Summer Flats Preliminary Grading and Stormwater Drainage Exhibit



The site is within the service area of SMUD for electricity service and PG&E for natural gas service. As required by EGMC Section 23.63.020, the existing overhead utility lines along the site's western boundary, to which the Project would connect, would be undergrounded.

Open Space and Landscaping

The Project would include a 14.7-acre open space lot, which would retain the existing transmission towers and overhead power lines and contain the proposed water quality/detention basin. In addition, the lot would include a meandering 12- to 20-foot-wide multi-use path with a minimum 25-foot-wide landscaped slope that would primarily proceed in a north-to-south direction to the east of the proposed residences. The path would pivot towards the east along the southern site boundary and include a 12-foot-wide connection to an existing multi-use path to the east of the site. At the midpoint of the trail's north-to-south segment, the Project would include construction of an outlook structure.

In addition, the proposed frontage improvements would include a 32.5-foot-wide landscape corridor, featuring a 10-foot-wide Class I multi-use path proceeding parallel to Waterman Road, which would be separated from Waterman Road by an eight-foot landscape planter.

The Project requires removal of two of the non-native trees located along the western site boundary within the frontage of Waterman Road. The proposed multi-use paths along the Project frontage and within the open space lot would be connected by a paseo, which would extend in an east-to-west direction between the two trails and would include new landscaping trees. Several lots located throughout the residential community would be planted with new landscaping trees. All landscaping would be consistent with the requirements set forth by EGMC Chapter 23.54, Landscaping.

Design Review

As established by EGMC Section 23.16.080, the purpose of the Design Review process is to promote the orderly and harmonious growth of the City; to encourage development in keeping with the desired character of the City; to ensure physical, visual, and functional compatibility between uses; and to help prevent the depreciation of land values by ensuring proper attention is given to site and architectural design. A Subdivision Design Review is required for any Tentative Subdivision Map. The Project would also include a Master Home Design Review for the approval of the Master Homes Plans.

The proposed residences would be constructed in accordance with four floor plans (i.e., Plans 1, 2, 3, and 4), with each structure featuring two floors. Additionally, all of the residences would contain three bedrooms and 2.5 bathrooms, with interior space ranging from 1,382 sf to 1,697 sf. The maximum heights of the residences would range from approximately 25 feet to 30 feet. Each unit would also offer a 400-sf, two-vehicle garage and private open space (backyards).

With respect to building exteriors, the proposed residences would be composed of various materials, including composite shingles (roofs), board and batten siding, fiber cement lap siding, and stucco. In accordance with Chapter 3.2 of the City of Elk Grove Design Guidelines, a variety of exterior colors would be offered for the proposed residences.

3.6 PROJECT APPROVALS

The City of Elk Grove has discretionary authority and is the lead agency for the Project. The Project would require City approval of the following discretionary actions:



- General Plan/Eastern Elk Grove Community Plan Amendment from LDR (7.3 acres) and RMC (19.6 acres) to MDR (11.9 acres) and RMC (14.7 acres);
- General Plan/Eastern Elk Grove Community Plan Amendment (text) to increase the maximum residential buildout for the East Elk Grove Sub-Area;
- Rezone from RD-4 (7.3 acres) and O (19.6 acres) to RD-12 (11.9 acres) and O (14.7 acres);
- Tentative Subdivision Map;
- Subdivision Design Review; and
- Master Home Plan Design Review.

In addition, as noted above, the Project would require the approval of a Design Exception for the elimination of the 122-foot and 166-foot stubs at the terminus of Street A and Street C. Instead, a fire access gate would be provided between the end of each stub and the open-space multi-use trail to provide an internal pull through for fire equipment.

Review or Approvals by Other Agencies

A number of other agencies will serve as Responsible and Trustee Agencies, pursuant to CEQA Guidelines Section 15381 and Section 15386, respectively. This EIR will provide environmental information to the aforementioned agencies and other public agencies, which may be required to grant approvals or coordinate with other agencies, as part of Project implementation. The agencies could include, but may not be limited to, the following:

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



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 Environmental Impact Report (EIR) include the analysis of the potential impacts of buildout of the proposed 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, or available on the City's website at:

<https://www.elkgrovecity.org/planning/environmental-review>

4.0.2 DETERMINATION OF SIGNIFICANCE

Under the California Environmental Quality Act (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 proposed 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 (for both project-specific and cumulative analyses) and an analysis of potential impacts for the Project.

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 associated mitigation measures is shown below.

Project-Specific Impacts and Mitigation Measures

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

4.x-1 Statement of Project-Specific Impact

Discussion of impact for the proposed 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 or significant. 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 proposed 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 proposed project in paragraph format.

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



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

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, or cumulatively considerable. 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 less-than-significant or less than cumulatively considerable levels 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 site, the surrounding 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 site, and light and glare. Information for the chapter has been primarily drawn from the City of Elk Grove General Plan¹ 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], CEQA does not require an analysis of psychological feelings or social impacts because CEQA's goal is to protect the physical environment. CEQA's definition of environment does not include psychological and social impacts of a project upon a community. 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 visual character of the region, State scenic highways, visual character of the site and surrounding area, as well as existing sources of light and glare.

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-unit and multi-unit residences 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

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.



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.

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. 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. Scenic vistas are not officially designated within the City's planning area.

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 8.61 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. The existing visual character of the site, as represented by views identified in Figure 4.1-1 from the east, west, and south, is described below.

Project Site

The site consists primarily of undeveloped grassland vegetation with numerous depressions where pooling has occurred. Aboveground distribution power lines and utility poles, as well as barbed wire fencing between wooden posts, exist along Waterman Road, parallel to the site's western boundary (see Figure 4.1-2). A number of trees are located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers.

From the east, views looking west toward the site such as from Hambley Circle include a paved roadway, curb and gutter, and sidewalk framed by landscape trees in the foreground, a pedestrian trail and the undeveloped site in the midground, and distant trees and single-unit residences in the background (see Figure 4.1-3). Three easements containing transmission towers, utility poles, and overhead power lines are generally located within the eastern half of the site. The transmission towers and overhead power lines are visible from East Park Drive, looking north towards the site, as shown in Figure 4.1-4 (note that the closest portion of the field shown in the image is not within the site boundaries; the site boundaries begin beyond the utility pole seen in the image).

³ California Department of Transportation. *California State Scenic Highway System Map*. Available at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed May 2025.



**Figure 4.1-1
Overview Map of View Locations**



Figure 4.1-2
Existing Easterly View of the Site from Waterman Road



**Figure 4.1-3
Existing Westerly View of the Site from Hambley Circle**



**Figure 4.1-4
Existing Northerly View of the Site from East Park Drive**



Surrounding Areas

Surrounding existing land uses include a single-unit residential neighborhood immediately to the east; scattered single-unit residences to the south, with a grocery store and smaller commercial businesses located further south along Elk Grove Boulevard; a single-unit residential neighborhood, the Hilltop Cemetery, and Jack E. Hill Park to the west, across Waterman Road; and vacant land to the north. The vacant land to the north consists of undeveloped grassland vegetation, as well as wetland areas.

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 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.

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 have direct views of the site while driving past. Motorists traveling along the streets within the residential neighborhood to the east would also have limited views of the site. The existing residences to the west, opposite Waterman Road would have similar views of the site as motorists traveling along the roadway looking east. Similarly, existing residences to the east located along neighborhood streets would have limited visibility of the site.
- 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 as they pass the site, including on a paved sidewalk on the western side and Class I bicycle lanes along both sides of Waterman Road. 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 Jeanne and Jerry Strong Park, southeast of the site, and the Jack E. Hill Park west of the site.



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 currently undeveloped and unlit. The most significant existing sources of light and glare in the site vicinity include the existing freestanding light fixtures along Waterman Road and headlights from vehicles also traveling on Waterman Road. Other existing sources of light in the vicinity include the existing neighborhoods to the east and to the west, as well as the single-unit residence to the south. The area north of the site is undeveloped and, thus, does not contain existing sources of light or glare.

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. 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.

Standard LU-5-3.a: New utility facilities should be located underground to the extent possible. Facilities to be placed underground should include electrical transformers (where



consistent with the guidelines of the electrical utility), water backflow preventers, and similar items.

Standard LU-5-3.b: Require that existing overhead utility facilities be undergrounded as a condition of project approval. This shall include electrical service lines under 69kV. Electrical service lines of 69kV and higher are encouraged to be undergrounded.

Policy LU-5-4 Require high standards of architectural and site design, and apply strong design controls for all development projects, both public and private, for the enhancement and development of community character and for the proper transition between areas with different types of land uses. Design standards shall address new construction and the reuse and remodeling of existing buildings.

Policy LU-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 22.20.20, new developments are also required to comply with the latest version of the City of Elk Grove Improvement Standards, Construction Specifications and Standard Drawings, and/or any applicable Special Planning Area (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, and a Master Home Plan Design Review for the approval of the proposed Master Homes Plans.

Lighting

Chapter 23.56 of the EGMC includes lighting standards for single- and multi-unit residences, 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 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; 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 public 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 of art 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.”

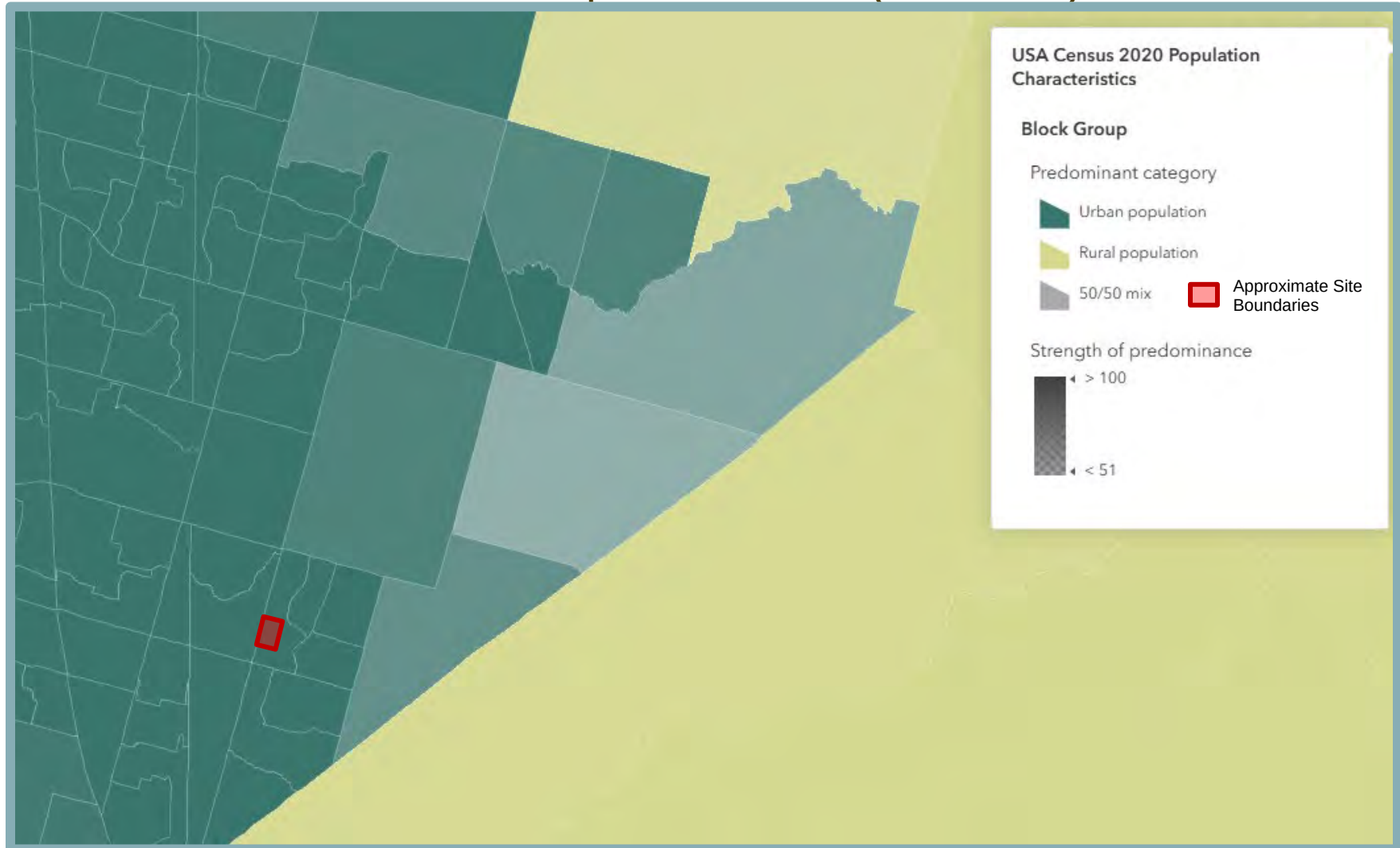
Based on the CEQA definition and that the site is designated as an urban area by the latest U.S. Census map (see Figure 4.1-5), the site meets the definition for an urbanized area.⁴ Therefore, the applicable threshold is whether the Project would conflict with any applicable zoning and/or other regulations 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.

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.



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”]).

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 above.

4.1-1 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 located within an urbanized area; therefore, the relevant threshold is whether the Project would conflict with applicable zoning and other regulations governing scenic quality. A portion of the western side of the site (APNs 127-0150-001 and -002) is currently zoned Low Density Residential – Maximum Four Dwelling Units per Acre (RD-4) and the remainder of the site is zoned Open Space (O). As discussed in Chapter 3, Project Description, of this EIR, the site would be rezoned to Medium Density Residential – Maximum 12 Dwelling Units per Acre (RD-12) and O. The required Rezone would change the site’s zoning designation from RD-4 (7.3 acres) and O (19.6 acres) to RD-12 (11.4 acres) and O (14.7 acres).

As part of the requested rezone, the Project would be required to adhere to the adopted zoning and development standards and criteria for development proposals set forth by the City. With respect to building exteriors, the proposed residences would be composed of various materials, including composite shingles (roofs), board and batten siding, fiber cement lap siding, and stucco. In accordance with Chapter 3.2 of the City of Elk Grove Design Guidelines, a variety of exterior colors would be offered for the proposed residences, including blue, tan, and grey. The Project would also be subject to maximum building height and minimum setback standards. For example, EGMC Section 23.24.020(C)(3c) establishes that development within the RD-12 zone is typically one and two stories; the proposed residences would be two stories and would range between 25 and 30 feet tall at the highest point of the structure (see Figure 4.1-6).

In addition, the Project would be subject to the City’s fencing and landscaping requirements. Fencing shall comply with the standards established in EGMC Chapter 23.52, and landscaping would be installed within a 32.5-foot-wide landscape corridor, including a 10-foot-wide Class I multi-use path proceeding parallel to Waterman Road and new landscaping trees on each side. The proposed pedestrian trails would be connected by a pedestrian paseo extending in an east-to-west direction, which would also include new landscaping trees, as would several landscaping lots located throughout the residential community.



Figure 4.1-6
Conceptual Residence Designs



In addition, the lot would include a meandering 12- to 20-foot-wide multi-use path with a minimum 25-foot-wide landscaped slope that would primarily proceed in a north-to-south direction to the east of the proposed residences. All landscaping would be consistent with the requirements set forth by EGMC Section 23.54.040 and would be reviewed by the Elk Grove City Council prior to approval.

When submitting final site plans for development, the plans would be subject to the City's Design Review process pursuant to EGMC Section 23.16.080. Design Review approval would ensure that the Project would comply with all applicable standards governing scenic quality.

Overall, development of the site would occur in accordance with Section 23.16.100(H) of the EGMC, in addition to the City's General Plan policies, EGMC, and Citywide Design Guidelines. Compliance with such would ensure that the Project would be consistent with all applicable plans and ordinances, as well as compatible with surrounding existing uses. In addition, development of the Project would adhere to the design standards of the RD-12 and O zoning districts. Therefore, the Project would not conflict with applicable zoning and other regulations governing scenic quality, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.1-2 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, the impact is *less than significant*.

The site is currently undeveloped and unlit. Existing sources of light in the site vicinity include headlights from vehicles traveling on Waterman Road and the existing neighborhoods to the east and west. As such, sources of light currently exist in the project vicinity.

Development of the Project would introduce additional sources of light and glare in the site. However, the additional sources of light would be similar 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. 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 glass. The sources of light that currently exist are located within neighborhoods to the east and west of the site, as well as from vehicles traveling on Waterman Road.

The Project would be subject to applicable City standards and policies intended to reduce impacts related to lighting and glare, as ensured by the City's permitting and plan review and approval processes. 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 so that the source is not visible from within any adjoining residence. The chapter also establishes required levels of illumination



for driveways, pedestrian walkways, and other areas of new development, and requires limitations on light trespassing onto abutting properties. The proposed residences would be compatible with the existing surrounding residential uses. In addition, the City's Design Guidelines require that exterior building and site lighting be designed so that light is contained within the site and that a light source is shielded downward from direct off-site viewing. Design Review approval pursuant to EGMC Section 23.16.080 would ensure that the proposed development would comply with all applicable standards governing site lighting.

Based on the consistency of the Project with surrounding development, compliance with the EGMC, and the added assurance of approval through the Design Review process, the Project would result in a ***less-than-significant*** impact with respect to creating a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

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.

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 of 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.



4.1-3 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 *less than cumulatively significant*.

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 views or conflict with zoning and other regulations related to scenic quality as analyzed in this EIR for the Project.

As discussed previously, the visual resources of the immediate vicinity are mostly characterized by residential neighborhoods, including single-unit residences to the west, east, and south of the site. In addition, a cemetery is located to the west, and vacant land is located to the north of the site.

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. The City's Design Guidelines, supplemental guidelines, and General Plan policies would ensure the visual character of future development 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.

Although the Project would require approval of General Plan/East Elk Grove Community Plan Amendments and a Rezone, residential uses have been previously anticipated for the site through the existing General Plan land use designation. In addition, the Project and all future development would be required to comply with the City's Design Guidelines and General Plan policies to ensure the visual character is consistent with the City's applicable standards, including General Plan Policies LU-5-1, LU-5-3, and LU-5-4, as well as EGMC Chapter 22.110. Compliance with the foregoing policies and regulations would be ensured through the City's Design Review process, which, similar to the Project, future projects would be subject to pursuant to EGMC Section 23.16.080. Furthermore, as discussed under Impact 4.1-1, development of the Project would not conflict with applicable zoning and other regulations governing scenic quality. Similar to the Project, other development projects in urbanized areas of the City would be required to demonstrate consistency with applicable policies and regulations governing scenic quality. Compliance with the foregoing requirements would ensure that future projects would adhere to City standards and to be compatible with surrounding existing uses.



The site is currently partially designated as Low Density Residential (LDR) and partially designated Resource Management and Conservation (RMC) by the General Plan. Thus, a portion of the site has been anticipated for residential development. As such, the conversion of a portion of the existing on-site grassland to residential uses has been anticipated and analyzed in the General Plan EIR. Because the Project would include General Plan/Community Plan Amendments to change the General Plan and Eastern Elk Grove Community Plan land use designations of the site from LDR and RMC to MDR and RMC, 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, as discussed above, 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 such, the Project's individual contribution to the significant cumulative impact would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

4.1-4 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, 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 west and east 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 the Project and 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. As discussed under Impact 4.1-3, the Project would be required to comply with all applicable regulations, which would be verified through the City's permitting and plan review and approval process, including ensuring that the Project design addresses 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. Therefore, the Project would not 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 significant cumulative impact would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.



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 significant impacts identified. This chapter is based on the Elk Grove General Plan¹ 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).

In addition, the City of Elk Grove is in the process of updating their CAP through preparation of a new Climate Compass.⁵ While the Climate Compass has not yet been adopted by the City, it is anticipated to be adopted prior to construction of the Project; thus, information from the Climate Compass has been incorporated into this chapter as applicable.

4.2.2 EXISTING ENVIRONMENTAL SETTING

The following information provides an overview of the existing environmental setting in relation to air quality within the region. 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

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.

⁵ City of Elk Grove. *Climate Compass*. June 2025.



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 breach in the mountain barrier is the Carquinez Strait, which exposes the midsection of the valley to the coastal air mass.

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 (NO₂), 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.



**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 irritation 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

ug/m³ = 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: California Air Resources Board. Ambient Air Quality Standards. July 16, 2024. Available at: https://www2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf Accessed June 2025.

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.

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 (SO₂) 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. SO₂ 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 (PM₁₀) 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}.

PM₁₀, 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 PM₁₀ 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 SO₂ during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO₂ 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 (H₂S) 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 (C₂H₃Cl), also known as VCM, is a colorless gas that does not occur naturally, but is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloroethylene 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.⁶

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).⁷ 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

⁶ California Air Resources Board. *Reducing Toxic Air Pollutants in California's Communities*. February 6, 2002.

⁷ South Coast Air Quality Management District. *Final 2012 Air Quality Management Plan*. December 2012.



the bloodstream of the inhaler, where the chemicals can eventually reach critical organs.⁸ The penetration capability of UFPs may contribute to adverse health effects related to heart, lung, and other organ health.⁹ 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.

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.¹⁰ 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. The 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 PM₁₀, 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

⁸ Health Effects Institute. *Understanding the Health Effects of Ambient Ultrafine Particles*. January 2013.

⁹ South Coast Air Quality Management District. *Final 2012 Air Quality Management Plan*. December 2012.

¹⁰ 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.



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.

**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 (PM₁₀)	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	-
<i>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.</i>			

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 Bruceville Road Station, located at 12490 Bruceville Road in Elk Grove, CA, approximately eight miles southwest of the site. Data for PM₁₀ was not available for the Bruceville Road monitoring site; thus, such data was obtained from the next nearest site, the Sacramento-Branch Center #2 monitoring site, located approximately 10.4 miles north of the site at 3847 Branch Center Road, in the City of Sacramento. In addition, data for PM_{2.5} was not available for the Bruceville Road monitoring site or the Sacramento-Branch Center #2 monitoring site; thus, such data was obtained from the next nearest site with PM_{2.5} data, the Sacramento-Del Paso Manor monitoring site, located approximately 13.5 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.



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

Pollutant	Standard	Days Standard Was Exceeded		
		2021	2022	2023
1-Hour Ozone	State	2	0	0
	Federal	0	0	0
8-Hour Ozone	State	5	1	0
	Federal	5	1	0
24-Hour PM _{2.5} **	Federal	5	10	0
24-Hour PM ₁₀ *	State	4	1	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 <https://www.arb.ca.gov/adam/>. Accessed October 2025.

Note:

* Denotes the data was not available from the closest air quality monitoring station, thus the data was obtained from the Sacramento-Branch Center #2 monitoring site, located at 3847 Branch Center Road.

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

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.

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 residential uses to the east, west (across Waterman Road), and south of the site.

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 (CO₂), methane (CH₄), nitrous oxide (N₂O), 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 CO₂, with the next largest components being CH₄ and N₂O. A wide variety of human activities result in the emission of CO₂. Some of the largest sources of CO₂ include the burning of fossil fuels for transportation, electricity production, and industrial processes, including plastic and cement production. The primary sources of CH₄ 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 N₂O 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.¹¹

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 CO₂ 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

¹¹ U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions*. Available at: <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>. Accessed June 2025.



mass of gas relative to a reference gas.” The reference gas for comparison is CO₂. GWP is based on a number of factors, including the heat-absorbing ability of each gas relative to that of CO₂, as well as the decay rate of each gas relative to that of CO₂. 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 CO₂, 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 CO₂, as shown in Table 4.2-5.

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 ₂ O)	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 ₂ F 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.		

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 CO₂. 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 CO₂, to 50,000 years for tetrafluoromethane. Longer atmospheric lifetimes allow GHG 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 CO₂ equivalents (MTCO_{2e}), which is calculated based on the GWP for each pollutant.

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.¹² Signs that global climate change has occurred include:

- Warming of the atmosphere and ocean;

¹² 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.



- 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:

- 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 2023,¹³ 190 percent of the average for March 2023,¹⁴ 237 percent of the average for April 2023,¹⁵ and 254 percent of the average for May of 2023.¹⁶ In contrast, during the 2024 winter season, California saw lower levels of snowpack than the year prior. The California DWR has noted that the snowpack in the Sierra was 25 percent of the average for

¹³ 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.

¹⁴ 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.

¹⁵ 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.

¹⁶ 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.



January 2024,¹⁷ 98 percent of the average in March 2024,¹⁸ and 113 percent of the average for April 2024.¹⁹

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.²⁰

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.²¹ 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.

In 2023, California was the fourth-largest electricity producer in the nation.²² 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 4.2-2 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.

¹⁷ California Department of Water Resources. *First Snow Survey of the Season Finds Below Average Conditions for California*. Available at: <https://water.ca.gov/News/News-Releases/2024/Jan-24/First-Snow-Survey-of-the-Season-Finds-Below-Average-Conditions-for-California>. Accessed July 2025.

¹⁸ California Department of Water Resources. *Forecasted State Water Project Water Supply Allocation Doubles Following February Storms*. Available at: <https://water.ca.gov/News/News-Releases/2024/Mar-24/Forecasted-State-Water-Project-Water-Supply-Allocation-Doubles-Following-February-Storms>. Accessed July 2025.

¹⁹ California Department of Water Resources. *Two in a Row: April Snow Survey Shows Above Average Snowpack for Second Straight Season*. Available at: <https://water.ca.gov/News/News-Releases/2024/Apr-24/April-Snow-Survey-Shows-Above-Average-Snowpack-for-Second-Straight-Season>. Accessed July 2025.

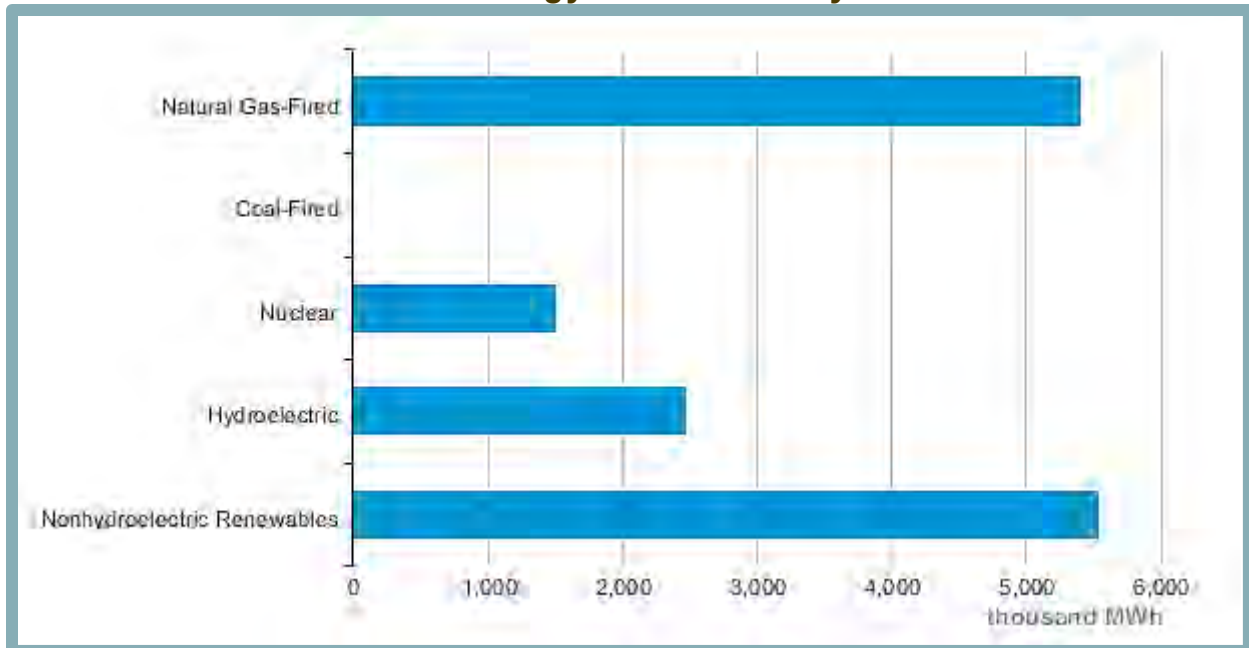
²⁰ City of Elk Grove. *Climate Action Plan: 2019 Update*. Adopted December 2019; Amended December 2022, December 2024.

²¹ U.S. Department of Energy. *State of California Energy Sector Risk Profile*. March 2021.

²² 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.

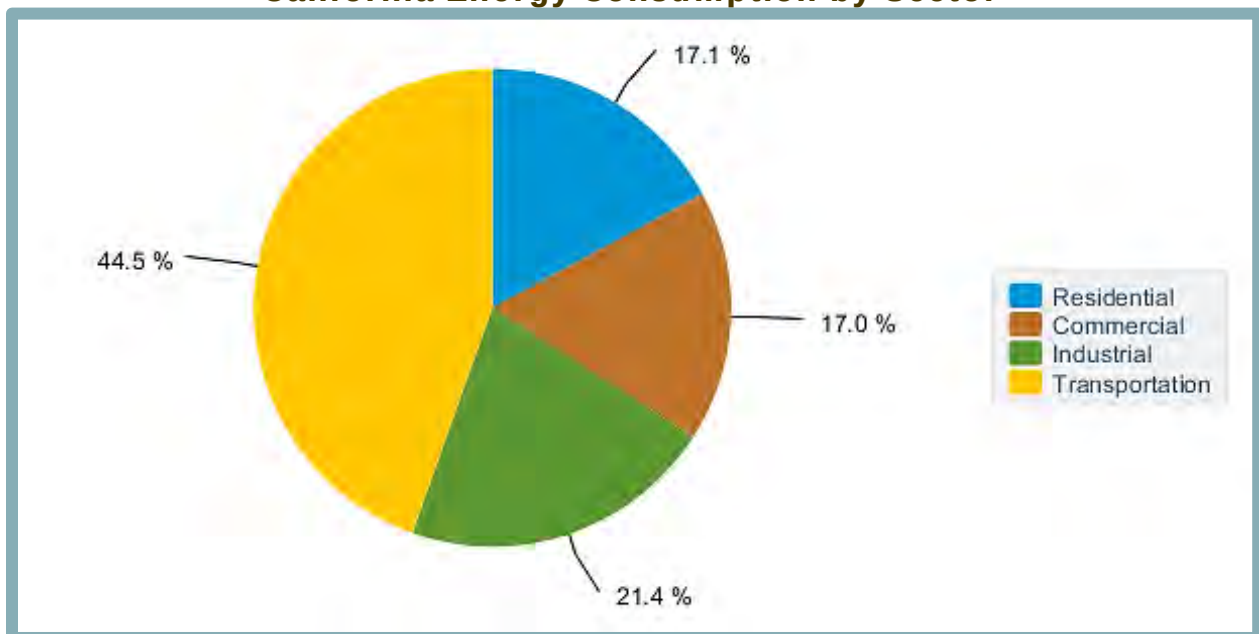


**Figure 4.2-1
California Energy Generation by Source**



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
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.



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.²³

Energy Consumption at the Site

Electricity in the City is provided by Sacramento Municipal Utility District (SMUD) and natural gas is provided by Pacific Gas and Electric (PG&E). Currently, the site contains three easements containing transmission towers, utility poles, and overhead power transmission lines along the eastern half of the site. The remainder of the site consists primarily of gently sloping grasslands, and a number of non-native trees located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers. 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 region 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, NO₂, SO₂, PM₁₀, 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, NO₂, SO₂, PM₁₀, 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, NO₂, SO₂, PM₁₀, 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.

²³ California Energy Commission. *Electricity Consumption by County*. Available at: <http://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed June 2025.



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 CO₂ 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 CO₂ 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 CO₂ 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. 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. The 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.

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.

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, SO₂ (one-hour and 24-hour), NO₂, PM₁₀, 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).²⁴ 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-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.”²⁵

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.”²⁶

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

²⁵ *Ibid.*

²⁶ *Ibid.*



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 not 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 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.²⁷ 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.

²⁷ California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. October 24, 2013. Available at: <https://www2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling>. Accessed June 2025.



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.²⁸ 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;
- 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.

²⁸ 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.



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 CO₂e. 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 CO₂e to 431 MMT CO₂e.

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 MTCO₂e per capita by 2030, and no more than two MTCO₂e 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) was adopted by the CARB in December 2022.²⁹ The 2022 Scoping Plan 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, 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 2022 Scoping Plan also lays out a more ambitious 48 percent reduction target by 2030. 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 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, entities subject to the Mandatory Reporting Regulation that emit more than 10,000 MTCO₂e 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 MTCO₂e 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 CH₄ 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, CH₄, 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 not later than 2045, and achieve and maintain net-negative

²⁹ California Air Resources Board. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16, 2022.



emissions thereafter. The goal is an addition to the existing statewide targets of reducing the State's GHG emissions. CARB has prepared the 2022 Scoping Plan, as discussed above, which identifies and recommends 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 CO₂ 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.

Executive Order N-79-20

EO N-79-20 (September 2020) directs the State to require that 100 percent of new passenger cars and light-duty trucks sold in California be zero-emission vehicles (ZEVs) by the year 2035. EO N-79-20 focuses on new vehicle sales for automakers, not existing cars and trucks already owned by California residents. The primary mechanism for achieving the ZEV target for passenger cars and light trucks is the Advanced Clean Cars II (ACC II) Program, as discussed in further detail below.



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 (EVs) in the 2018 to 2025 model years.

In addition, the ACC II Program was approved by CARB in August 2022 to establish the next phase of regulations, beginning with the 2026 model year. The ACC II Program (1) increased the stringency of the smog-causing criteria pollutant standards; (2) updated the ZEV regulation to require that 100 percent of new passenger vehicles meet zero-emission standards (including plug-in hybrids) by the 2035 model year, in compliance with EO N-79-20; and (3) established measures to ensure ZEV can provide enduring emission reductions. However, on 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 ACC 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.³⁰ As such, the future enforceability of the ACC II Program is currently unknown as of the 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.

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

³⁰ 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.



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.³¹

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.³²

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. The 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.

The 2022 Title 24 standards are the 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.

³¹ California Energy Commission. *About the California Energy Commission*. Available at: <http://www.energy.ca.gov/about>. Accessed June 2025.

³² California Public Utilities Commission. *California Public Utilities Commission*. Available at: <https://www.cpuc.ca.gov/about-cpuc>. Accessed June 2025.



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:³³

- 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 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; 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,

³³ California Energy Commission. *Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions From Homes and Businesses*. August 11, 2021.



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. The 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 State



Implementation Plan (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 (RACT) 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.³⁴

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.
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.

³⁴ U.S. Environmental Protection Agency. *Nonattainment and Unclassifiable Area Designations for the 2015 Ozone Standards*. April 30, 2018.



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 MTCO ₂ e. By 2050, reduce per capita greenhouse gas emissions 1.4 MTCO ₂ e 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. Each strategy includes a description, the recommended actions necessary to implement the strategy, and target indicators to monitor progress.

The 2019 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.

In addition, as discussed previously, the City of Elk Grove has been working on a comprehensive update to the CAP, titled the Climate Compass. The Climate Compass continues to focus on reducing GHG emissions generated through communitywide or municipal actions, and ensures consistency with more recent statewide targets identified in EO B-55-18/AB 1279 and the 2022 Scoping Plan. Once updated, the Climate Compass will continue to serve as a Qualified GHG Reduction Strategy under Section 15183.5 of the CEQA Guidelines, providing a streamlined review for projects that are consistent with the Climate Compass. The Climate Compass is anticipated to be considered by City Council for adoption in spring 2026.

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 EV 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 EV 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 EV 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, PM₁₀, 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.

The City of Elk Grove, as the CEQA Lead Agency for the Project, has elected to use 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 PM₁₀ are based on attainment plans for the region. Thus, SMAQMD concluded that if a project's ozone precursor and PM₁₀ 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.



**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, <i>Basic Construction Emission Control Practices (Best Management Practices)</i> , 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, <i>Operational Best Management Practices for PM from Land Use Development Projects</i> , October 2020)		
Source: SMAQMD Thresholds of Significance Table, April 2020.		

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.³⁵ However, the Project would require General Plan/East Elk Grove Community Plan Amendments and a 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 MTCO₂e/yr. If construction of the Project would result in emissions that exceed 1,100 MTCO₂e/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 MTCO₂e/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.

³⁵ Sacramento Metropolitan Air Quality Management District. *Climate Action Planning in the Sacramento Metropolitan Air Quality Management District*. November 2017.



- **BMP 2:** 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 would be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances, pursuant to CALGreen Code requirements, and may be required to purchase GHG/carbon offsets for project-related GHG emissions from the component(s) using natural gas instead of electricity. After implementation of BMPs 1 and 2, if a project's operational emissions would be at or below 1,100 MTCO₂e/yr, the operational emissions would be considered less than significant. Projects that would still result in emissions in excess of 1,100 MTCO₂e/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 MTCO₂e/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:
 - o Locate in an area that already has low VMT due to location, transit service, etc.;
 - o Adopt CAPCOA measures;
 - o Adopt measures noted in Sacramento's CAAP checklist;
 - o Join a Transportation Management Association;
 - o Incorporate traffic calming measures;
 - o Incorporate pedestrian facilities and connections to public transportation; and/or
 - o 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 MTCO₂e/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 2022.1.1.29 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 August 2026;
- Construction would potentially occur over an approximately one-year period;
- Approximately 10,000 cubic yards (CY) of soil would be imported to the site during grading;



- The site preparation, grading, paving, and building construction phase timing was adjusted based on project-specific information provided by the applicant; and
- 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.

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 2027. 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. Fehr and Peers provided Project-specific trip generation rates and vehicle miles traveled (VMT) data,³⁶ 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. Construction-related emissions would be generated from construction equipment, vegetation clearing, soil hauling, 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 PM₁₀, 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, PM₁₀, and PM_{2.5} associated with the Project in comparison with the SMAQMD

³⁶ Fehr and Peers. *VMT and Volume Summary*. May 28, 2025.



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	30.10 lbs/day	85 lbs/day	NO
ROG	15.10 lbs/day	-	NO
PM ₁₀	21.10 lbs/day and 0.45 tons/yr	80 lbs/day and 14.6 tons/yr	NO
PM _{2.5}	11.30 lbs/day and 0.21 tons/yr	82 lbs/day and 15 tons/yr	NO
<i>Source: CalEEMod, October 2025 (see Appendix C).</i>			

As shown in Table 4.2-7, construction activities would result in emissions of ROG, NO_x, PM₁₀, and PM_{2.5} below the applicable SMAQMD thresholds of significance. Therefore, construction activities associated with development of the Project would not substantially contribute to the SVAB's non-attainment status for ozone or PM. Accordingly, construction 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 five 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.

Conclusion

Based on the above, construction emissions associated with the Project are anticipated to fall below SMAQMD's applicable thresholds of significance. Thus, implementation of the Project would not conflict with or obstruct implementation of the applicable air quality plan during construction and a **less-than-significant** impact would occur.

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 site 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 PM₁₀ 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 and 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 (i.e., proximity to nearest planned bus stop), 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 PM₁₀ and PM_{2.5}. The maximum unmitigated operational emissions for the Project are presented in Table 4.2-8 below.

Table 4.2-8 Maximum Unmitigated Project Operational Emissions			
Pollutant	Project Emissions	Operational Threshold	Exceeds Threshold?
NO _x	4.18 lbs/day	65 lbs/day	NO
ROG	10.50 lbs/day	65 lbs/day	NO
PM ₁₀	4.22 lbs/day and 0.75 tons/yr	80 lbs/day and 14.6 tons/yr	NO
PM _{2.5}	1.17 lbs/day and 0.21 tons/yr	82 lbs/day and 15 tons/yr	NO
<i>Source: CalEEMod, October 2025 (see Appendix C).</i>			

As shown in Table 4.2-8, 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 to the site are located within the residential subdivision directly to the east and west of the site. The closest residential uses are to the east of the site.



The major pollutant concentrations of concern are localized CO emissions, TAC emissions, NOA, and criteria pollutant emissions (air basin wide), 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. Pursuant to 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.³⁷ 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 one-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 over the course of the entire construction period. In addition, all construction equipment and operation thereof would be regulated by 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

³⁷ Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment, Chapter 4: Operational Criteria Air Pollutant and Precursor Emissions*. June 2020.



use of BACTs. Thus, Project contractors would ensure that off-road diesel vehicles used during construction of the Project comply with statewide emissions reductions targets through compliance with statewide fleet regulations. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, particularly associated with permitting of air pollutant sources, which would be ensured through conditions of approval for the Project. Considering the intermittent nature of construction equipment operating within an influential distance to the nearest 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, which would be ensured through conditions of approval for the Project, 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 PM₁₀. According to CARB, more than 90 percent of DPM is less than one micrometer in diameter,³⁸ and, thus, DPM is a subset of PM_{2.5}, which comprises a portion of PM₁₀. As a California statewide average, DPM comprises about eight percent of PM_{2.5} in outdoor air,³⁹ and would represent an even smaller percentage of PM₁₀ emissions. Considering that the Project's construction-related PM₁₀ 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 City.⁴⁰ 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

³⁸ California Air Resources Board. *Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀)*. Available at: <https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health>. Accessed June 2025.

³⁹ California Air Resources Board. *Overview: Diesel Exhaust & Health*. Available at: <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>. Accessed June 2025.

⁴⁰ 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.



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.⁴¹ The Guidance represents SMAQMD's effort to develop a 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, 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 4.2-8, 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 4.2-9.

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 1.5 premature deaths per year due to the Project's PM_{2.5} emissions and 0.03 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 (0.0034 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 0.75 asthma-related emergency room visits, and ozone emissions from the Project could result in 0.66 asthma-related emergency room visits.

Such numbers represent a minute increase over the background level of asthma-related emergency room visits (0.0041 percent and 0.0036 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 4.2-9.

⁴¹ Sacramento Metropolitan Air Quality Management District. *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District*. October 2020.



**Table 4.2-9
Health Effects from Project**

Health Endpoint	Age Range ¹	Incidences Across the 5-Air-District Region Resulting from Project Emissions (per year) ²	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
		(Mean)	(%)	
Respiratory PM _{2.5}				
Emergency Room Visits, Asthma	0-99	0.75	0.0041	18,419
Hospital Admissions, Asthma	0-64	0.050	0.0027	1,846
Hospital Admissions, All Respiratory	65-99	0.23	0.0012	19,644
Cardiovascular PM _{2.5}				
Hospital Admissions, All Cardiovascular (less Myocardial Infarctions)	65-99	0.13	0.00054	24,037
Acute Myocardial Infarction, Nonfatal	18-24	0.000062	0.0016	4
Acute Myocardial Infarction, Nonfatal	25-44	0.0056	0.0018	308
Acute Myocardial Infarction, Nonfatal	45-54	0.014	0.0019	741
Acute Myocardial Infarction, Nonfatal	55-64	0.023	0.0019	1,239
Acute Myocardial Infarction, Nonfatal	65-99	0.082	0.0016	5,052
Mortality PM _{2.5}				
Mortality, All Cause	30-99	1.5	0.0034	44,766
Respiratory Ozone				
Hospital Admissions, All Respiratory	65-99	0.048	0.00024	19,644
Emergency Room Visits, Asthma	0-17	0.26	0.0045	5,859
Emergency Room Visits, Asthma	18-99	0.40	0.0032	12,560
Mortality Ozone				
Mortality, Non-Accidental	0-99	0.031	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. June 2020 (see Appendix C).



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. 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. 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 (which would be ensured through conditions of approval for the Project), restricted to the hours of 7:00 AM to 7:00 PM pursuant to 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 over the course of the construction period, 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 (pursuant to SMAQMD Rule 402) to ensure that such complaints are addressed and mitigated, as necessary. Project compliance with SMAQMD Rule 402 would be ensured through conditions of approval for the Project.

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), which would be ensured through conditions of approval for the Project. 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, the majority of site surfaces would be covered with either impervious surfaces or landscaped areas. Thus, vehicles operating within the site would generally 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.

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 energy demands for temporary lighting, welding machines (which often need higher voltage than what is available in a standard outlet, so they are often powered by generators instead of by electricity through the grid), and for supplying energy to areas of the site where energy supply cannot be met through a hookup to the existing electricity grid. Typical construction-related diesel generator usage was accounted for within the CalEEMod modeling prepared for the Project.

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. In addition, the site is within the service boundaries for SMUD and existing electricity infrastructure is located within the site vicinity. Development of the site with residential uses and the associated construction energy usage associated with such has been generally anticipated by the City. SMUD also reviewed the Project application and did not have any concerns regarding their ability to serve the Project. Given the above, 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, Project contractors would ensure that all construction equipment and operation thereof would be in compliance with 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.⁴² The In-Use Off-Road Diesel Vehicle Regulation would, therefore, help to improve fuel efficiency for equipment used in construction of the Project.

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.⁴³ The Project contractors would ensure that the construction fleet would comply with such regulations, and that all construction equipment within the fleet used during Project construction meet 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.

⁴² California Air Resources Board. *In-Use Off Road Diesel-Fueled Fleets Regulation Overview*, Revised October 2016. 2016.

⁴³ California Air Resources Board. *Frequently Asked Questions, Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation)*. August 2014.



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, as part of the City's permitting and plan review and approval processes, 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 generally include the development of 120 single-unit residential lots, as well associated on-site improvements. Energy use associated with the operation of the Project would be typical of such residential 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 energy use, the Project would result in transportation energy use associated with vehicle trips generated by residents 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 be confirmed through the City's permitting and plan review and approval processes and 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. SMUD intends to generate 100 percent of their electricity through renewable sources by 2030, which exceeds the requirements established by the RPS.

Based on the air quality modeling prepared for the Project, the Project is anticipated to result in increased electricity consumption of approximately 1.07 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 0.009 percent increase in electricity demand. In addition, the site is within the service boundaries for SMUD and existing electricity infrastructure is located within the site vicinity. Development of the site with residential uses and the associated operational energy usage associated with such has been generally anticipated by the City. SMUD also reviewed the Project application and did not have any concerns regarding their ability to serve the Project.⁴⁴ Thus, although the project would increase electricity demand at the site, given the relatively small increase as compared to energy usage in the region,

⁴⁴ Sacramento Municipal Utility District. *Subject: Summer Flats at Waterman Map (Project No. PLNG23-006)*. March 2, 2023.



the increased demand is not anticipated to 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 2030,⁴⁵ 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.⁴⁶ 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 2,103,635⁴⁷ the Project would result in the consumption of approximately 4,258 barrels of crude oil per year.

California is estimated to consume approximately 605 million barrels of petroleum per year.⁴⁸ Based on the annual consumption within the State, vehicle trips generated by the Project would result in an approximately 0.0007 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 EVs. California leads the nation in registered alternatively-fueled and hybrid vehicles. In fact, under EO N-79-20 and the ACC II Program, the State has required that, to the extent allowed by federal law, all cars sold shall be zero-emission/EVs starting in the year 2035. However, as discussed in the Regulatory Context section of this chapter, the future enforceability of the ACC II Program is currently unknown as of the date of this EIR.

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 that the Project be constructed in accordance with the EV Ready standards included in Appendix A4 of the 2022 CALGreen Code (i.e., within the garage of each proposed residential unit, a dedicated 208/240-volt branch circuit shall be installed in the raceway required by Chapter 4 of the 2022 CALGreen Code). Based on the above, the actual consumption

⁴⁵ Sacramento Municipal Utility District. *2030 Zero Carbon Plan*. April 2021.

⁴⁶ 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.

⁴⁷ The annual VMT estimate presented herein is based on the Transportation Impact Study prepared for the Project by Fehr & Peers.

⁴⁸ 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.



of gasoline associated with the Project is anticipated to be even lower than the 0.0006 percent statewide contribution noted above.

Vehicles owned by the future residents of the Project are assumed to be manufactured in compliance 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 context above, construction and operation of the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. 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.

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 PM₁₀. 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 PM₁₀. 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 PM₁₀. The SMAQMD's recommended cumulative thresholds are identical to the operational thresholds, both of which are presented in Table 4.2-8.

Accordingly, if the Project would result in an increase of ROG, NO_x, PM₁₀, 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 4.2-8.

As shown in Table 4.2-8, the Project's unmitigated operational emissions of ROG, NO_x, PM₁₀, and PM_{2.5} would all 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 the implementation of 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 CO₂ and, to a lesser extent, other GHG pollutants, such as CH₄ and N₂O. 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 GHG reduction strategy under Section 15183.5 of the CEQA Guidelines. However, the Project would require General Plan/East Elk Grove Community Plan Amendments and a 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 4.2-10.

As shown in the table, the maximum annual construction-related GHG emissions would be below the SMAQMD threshold of 1,100 MTCO₂e/yr. Therefore, Project construction would not be considered to result in a cumulatively considerable contribution to global climate change.

Table 4.2-10		
Maximum Unmitigated On-Site Construction GHG Emissions		
(MTCO₂e / yr)		
GHG Emissions	Threshold of Significance	Exceeds Threshold?
304	1,100	NO
<i>Source: CalEEMod, October 2025 (see Appendix C).</i>		

Operational GHG Emissions

The maximum unmitigated operational GHG emissions for the first year of operation associated with the Project (assumed to be 2027) were estimated using CalEEMod and are presented in Table 4.2-11.

As noted previously, the Project would require General Plan/East Elk Grove Community Plan Amendments and a 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 29 residences could be constructed on-site, which would result in a maximum of 461 MTCO₂e/yr. Thus, as compared to buildout of the site under currently allowed conditions, the Project would result in a net increase of 735 MTCO₂e/yr during operations.



Table 4.2-11 Maximum Unmitigated Operational GHG Emissions	
Operational Emission Source	GHG Emissions (MTCO₂e / yr)
Mobile	784.00
Area	2.07
Energy	381.00
Water	4.02
Waste	24.70
Refrigerants	0.28
TOTAL ANNUAL OPERATIONAL GHG EMISSIONS¹	1,196.00
¹ Rounding may result in small differences in summation.	
Source: CalEEMod, October 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 purchase of GHG/carbon offsets for project-related GHG emissions from the component(s) using natural gas instead of electricity. Projects that include natural gas infrastructure would also be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances, pursuant to CALGreen code requirements. Without the prohibition of natural gas on-site or the inclusion of feasible GHG reduction measures to offset the use of natural gas on-site, 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. 2023) (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

The residential mandatory measures included in Chapter 4 of the 2022 CALGreen Code require all single-unit residences, townhomes, and duplexes be EV capable (i.e., each dwelling unit must have a listed raceway to accommodate a dedicated 208/240-volt branch circuit), which would be suitable for EV charging. However, compliance with the residential mandatory measures included in Chapter 4 of the 2022 CALGreen Code would not satisfy the requirements established by SMAQMD BMP 2, as BMP 2 requires spaces to be EV Ready.

The Tier 2 standards included in Appendix A4 of the 2022 CALGreen Code require all single-unit residences, townhomes, and duplexes be EV ready (i.e., a dedicated 208/240-volt branch circuit shall be installed in the raceway required by Chapter 4 of the 2022 CALGreen Code). However, the Tier 2 standards included in Appendix A4 of the 2022 CALGreen Code are voluntary measures under the CALGreen Code requirements. Project-specific information is not available to ensure that development within the Project would be designed to include the required number of EV Ready spaces. Thus, Mitigation Measure 4.2-7(a) would be required to ensure Project compliance with BMP-2.

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 2.8 percent reduction in VMT per service population and a 0.08 percent reduction in total VMT within the City Limits.

Implementation of Mitigation Measure 4.2-7(c), which would ensure the implementation of Mitigation Measure 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 General Plan/East Elk Grove Community Plan Amendments and a Rezone. The current designation of the site would be changed from Low-Density Residential (LDR) and Resource Management and Conservation (RMC) to Medium-Density Residential (MDR) and RMC, and text would be revised to increase the maximum residential buildout for the East Elk Grove Sub-Area. The existing density allowed by the General Plan would result in a total of 29 single-unit residences, while the General Plan Amendment would allow for the proposed 120 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 4.2-12 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 4.2-12 Maximum Estimated Operational GHG Emissions - Existing Conditions Compared to the Project	
Scenario	GHG Emissions (MTCO₂e / yr)
Existing General Plan Conditions	461
Project	1,196
<i>Net Difference</i>	<i>+735</i>
<i>Source: CalEEMod, October 2025 (see Appendix C).</i>	

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 MTCO₂e for the year 2030 and 1.4 MTCO₂e 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 1,196 MTCO₂e annually. Additionally, the projected population at buildout of the Project would be 371 residents, as discussed further detail in Chapter 4.8, Land Use and Planning/Population and Housing. Accordingly, the Project was determined to result in GHG emissions of 3.22 MTCO₂e per capita per year, which would be below the CAP's 2030 4.1 MTCO₂e 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 MTCO₂e per capita goal.



In addition, as discussed previously, the City of Elk Grove is in the process of updating their CAP through preparation of a new Climate Compass, which is anticipated to be considered by City Council for adoption in spring 2026. Similar to the current CAP, the Climate Compass provides emissions per capita targets for 2030 and 2050. The City is targeting 2.8 MTCO₂e for the year 2030 and 0.5 MTCO₂e for the year 2050 within the Climate Compass. As discussed above, the Project was determined to result in GHG emissions of 3.22 MTCO₂e per capita per year, which would be above both the 2030 2.8 MTCO₂e per capita goal and the 0.5 MTCO₂e per capita goal established in the Climate Compass.

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 4.2-13, below, presents a consistency discussion for each of the CAP measures that are required for analysis in CEQA documents.

Table 4.2-13 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. The City will ensure compliance prior to the issuance of any grading or building permits through implementation of 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 or (ii) 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 electricity. The overall intent of BE-5 is to decrease energy emissions for new residential construction. The City will ensure compliance prior to the issuance of any grading or building permits. 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 Projects. Support local utilities in implementing residential retrofit	The Project applicant has committed to requiring at least 10 percent of the proposed units to include exclusively electrical appliances and HVAC system. The City will ensure compliance prior to the issuance of any grading or building permits through implementation of Mitigation Measure 4.2-7(b). Thus, the Project complies with Measure BE-6.



Table 4.2-13 Elk Grove CAP Consistency Review Checklist Summary	
CAP Implementation Measure	Project Consistency
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. The City will ensure compliance prior to the issuance of any grading or building permits through implementation of 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 2.8 percent reduction in VMT per service population and a 0.08 percent reduction in total VMT within the City Limits. Implementation of Mitigation Measure 4.2-7(c), which would ensure the implementation of Mitigation Measure 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 standards by 2030 and encourage	The Project applicant has committed to requiring that at least 25 percent of off-road construction equipment used during Project construction be EPA-rated Tier 4 Final. The City will ensure compliance prior to the issuance of any grading or building permits through implementation of



Table 4.2-13 Elk Grove CAP Consistency Review Checklist Summary	
CAP Implementation Measure	Project Consistency
the use of electrified equipment where feasible.	Mitigation Measure 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 being constructed in accordance with the EV Ready standards included in Appendix A4 of the 2022 CALGreen Code (i.e., within the garage of each proposed residential unit, a dedicated 208/240-volt branch circuit shall be installed in the raceway required by Chapter 4 of the 2022 CALGreen Code), which would be ensured through Mitigation Measure 4.2-7(a). The City will ensure compliance prior to the issuance of any grading or building permits. Thus, the Project complies with Measure TACM-9.
<i>Source: City of Elk Grove. Climate Action Plan: 2019 Update. Adopted December 2019; Amended December 2022, December 2024.</i>	

The Project would be required to comply with the CAP and State building codes in effect at the time of permit application. The 2019 CAP and the Climate Compass are substantially similar in residential GHG emission reductions, though the 2025 California Building Code related to energy efficiency is more stringent. Therefore, GHG emissions are anticipated to be further reduced from what is anticipated herein due to compliance with the aforementioned more stringent regulations.

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 1,196 MTCO₂e to 1,016 MTCO₂e, which equates to 2.73 MTCO₂e per capita per year. GHG emissions of 2.73 MTCO₂e per capita per year would be below the CAP's 2030 per capita goal, as well as the 2030 per capita goal established by the Climate Compass. However, the Project would be above the CAP's 2050 1.4 MTCO₂e per capita goal and the 0.5 MTCO₂e per capita goal established by



the Climate Compass. In addition, 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 building permits, subject to review and approval by the City of Elk Grove Community Development Department:*

- *The project shall be constructed in accordance with the EV Ready standards included in Appendix A4 of the 2022 CALGreen Code (i.e., within the garage of each proposed residential unit, a dedicated 208/240-volt branch circuit shall be installed in the raceway required by Chapter 4 of the 2022 CALGreen Code); and*
- *The Project shall either (i) be designed such that the project is built all-electric or (ii) 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 electricity, 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).

Or

Prior to issuance of any grading or building permits, if the City's Climate Compass has been adopted by City Council, the project applicant shall demonstrate compliance with the applicable GHG reduction strategies and actions set forth therein.

4.2-7(c) Implement Mitigation Measure 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 Plan³ 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 northeast of the Waterman Road/Rancho Drive intersection, in the northeastern portion of the City in the East Elk Grove Sub-Area of the Eastern Elk Grove 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

¹ Madrone Ecological Consulting. *Biological Resources Assessment, Summer Flats at Waterman Road*. June 2025.
² Acorn Arboricultural Services, Inc. *Arborist Report Summerflats City of Elk Grove CA; APNs 127-01509-001 & 002, 127-0150-009*. April 22, 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 areas 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 37.7-acre study area for the BRA consists of the 27.6-acre site and associated infrastructure improvement areas, including frontage and utilities improvements along Waterman Road and areas adjacent to the site where construction-related activities such as construction vehicle traffic or staging may temporarily occur. The site consists of generally flat to sloping grassland with an elevation ranging from 50 to 65 feet above mean sea level (amsl). The northwest corner of the study area shows signs of past grading, with a small berm and riprap piles present. A perimeter firebreak is disked along the northern boundary, and signs of historic disking are visible. Structures within the study area include three lines of large metal power line towers that generally run north-south through the eastern half of the study area. Additionally, a line of wooden power poles runs north-south along Waterman Road. An inactive well occurs near the southwest corner of the study area, and a blank wooden billboard is present on the west border along Waterman Road. Approximately 15 acres of the southwest portion of the study area is fenced off and heavily grazed by goats and sheep; water troughs are present near the southwest corner and are fed from hoses from a rural residence located to the south of the study area. A residential area occurs along the eastern boundary of the study area, and ornamental landscaping plants associated with the residences have overgrown onto the study area. The annual brome grasslands within the on-site portion of the study area are heavily grazed by goats annually in summer.

Terrestrial Land Covers

The majority of the study area is comprised of annual brome grassland (see Figure 4.3-1 and Table 4.3-1). The annual brome grassland is dominated by ryegrass (*Festuca perennis*), slender wild oat (*Avena barbata*), medusa head (*Elymus caput-medusae*), and soft chess (*Bromus hordeaceus*). The study area also supports inclusions of rural residential development along Waterman Road and urban areas (areas that are paved or otherwise developed with urban uses) along Waterman Road and associated with development east of the site.

Table 4.3-1	
Terrestrial Land Covers within the Study Area	
Land Covers / Vegetation Communities	Acres
Annual Brome Grassland	26.8
Rural Residential	0.2
Road	6.8
Total	33.8
Note: Small summation errors may occur due to rounding. The remaining 3.90 acres within the study area are comprised of aquatic resources.	
Source: Madrone Ecological Consulting, 2025.	

Aquatic Resources

Aquatic resources mapped within the study area are shown in Figure 4.3-2. Table 4.3-2 provides the acreage of each aquatic resource located within the study area.



Figure 4.3-1
Terrestrial Vegetation Communities and Aquatic Resources in the Study Area

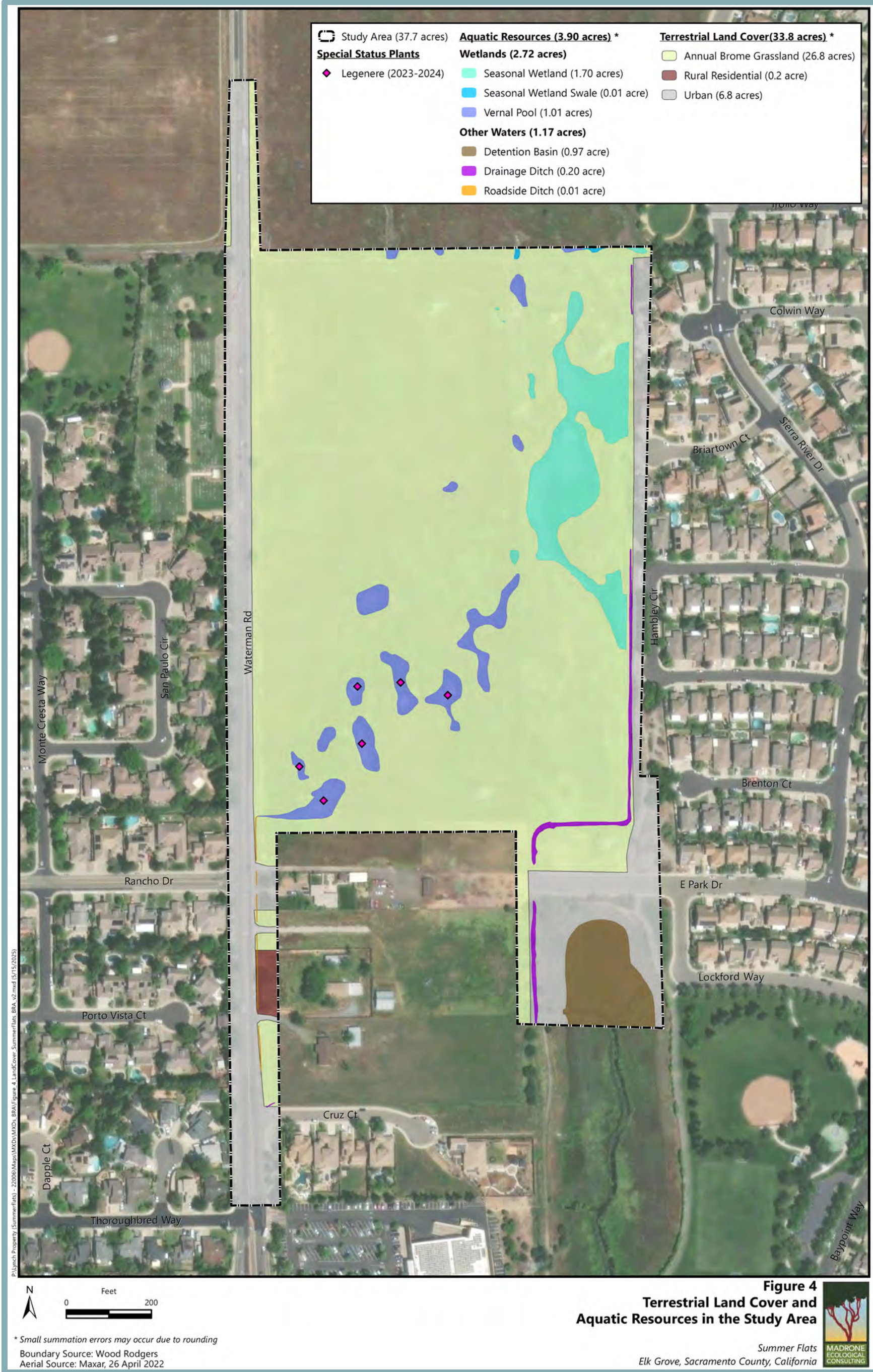
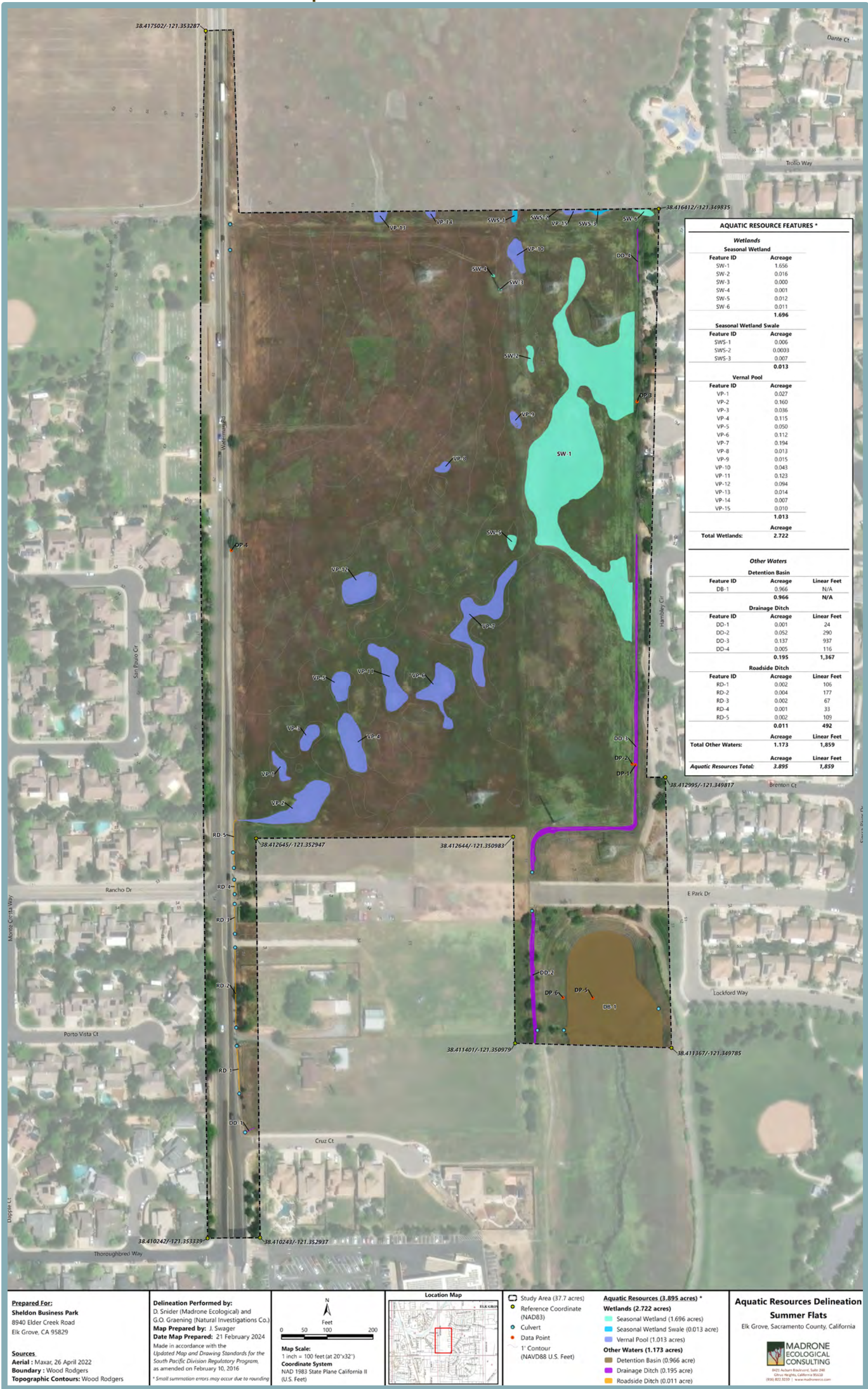


Figure 4.3-2
Aquatic Resources Delineation



Source: Madrone Ecological Consulting, 2025.



Table 4.3-2 Aquatic Resources Within the Study Area	
Resource Type	Acreage
Wetlands	
Seasonal Wetland	1.70
Seasonal Wetland Swale	0.01
Vernal Pool	1.01
Other Waters	
Detention Basin	0.97
Drainage Ditch	0.20
Roadside Ditch	0.01
Total	3.90
Note: Small summation errors may occur due to rounding.	
Source: Madrone Ecological Consulting, 2025.	

As shown in the table, a total of approximately 3.90 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).⁶ A detailed description of each aquatic resource identified in the study area is provided below.

Seasonal Wetland

The study area supports a total of 1.70 acres of 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. At the time of the aquatic resources delineation, the seasonal wetlands within the study area were dominated by winged water starwort (*Callitriche marginata*), creeping spikerush (*Eleocharis macrostachya*), ryegrass, Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), perennial pepperweed (*Lepidium latifolium*), Carter's buttercup (*Ranunculus bonariensis* var. *trisepalus*), curly dock (*Rumex crispus*), and flowering quillwort (*Triglochin scilloides*).

The seasonal wetlands are waters of the State. The USACE will determine whether the seasonal wetlands are federally jurisdictional when issuing a jurisdictional determination for the study area.

Seasonal Wetland Swale

The study area supports two distinct portions of a seasonal wetland swale that total 0.01 acre. The seasonal wetland swale is located along the northern boundary of the study area and is adjacent to an isolated vernal pool. Seasonal wetland swales are sloping, linear seasonal wetlands that convey stormwater runoff, and may detain runoff for short periods of time. The seasonal wetland swales within the study area are occupied by marginal wetland species typical of the seasonal wetlands described above.

⁶ U.S. Army Corps of Engineers, Sacramento District. *Preliminary Jurisdictional Determination*. SPK-2004-00397. October 15, 2024.



The seasonal wetland swale is a water of the State. The swale has a direct surface connection to an isolated vernal pool but does not appear to have a direct surface connection to any relatively permanent waters. The USACE will determine whether the seasonal wetland swale is federally jurisdictional when issuing a jurisdictional determination for the study area.

Vernal Pool

A number of vernal pools totaling approximately 1.01 acres occur within the study area. Vernal pools are topographic basins that are underlain with an impermeable or semi-permeable hardpan or duripan layer. Vernal pools inundate 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. At the time of the aquatic resources delineation, the vernal pools were dominated by winged water starwort, California damsonium (*Damasonium californicum*), ornate downingia (*Downingia ornatissima*), ornate downingia *Eleocharis macrostachya*, and Carter's buttercup.

The vernal pools are waters of the State. One vernal pool in the southwest corner of the study area is connected to a roadside ditch on the west side of Waterman Road. The ditch, which was created to capture storm water runoff from the road and surrounding area, does not appear to have a direct connection to the City of Elk Grove storm water system nor is the ditch directly connected to a relatively permanent water. None of the other vernal pools appear to have a direct surface connection to any relatively permanent waters or other aquatic features that are connected to a relatively permanent water. The USACE will determine whether the vernal pools are federally jurisdictional when issuing a jurisdictional determination for the study area.

Detention Basin

A portion of a constructed storm water detention basin (0.97-acre) occurs in the southeastern portion of the study area. The basin is incorporated into the City's Jeanne and Jerry Strong Park and is surrounded by urban development and a recreational trail.

Areas used for detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program are not considered to be waters of the State.⁷ As described in Code of Federal Regulations (CFR) Title 40 Section 120.2(b), "artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing" are not considered to be waters of the U.S. Nonetheless, the USACE will formally determine whether the detention basin is federally jurisdictional when issuing a jurisdictional determination for the study area.

Drainage and Roadside Ditches

Approximately 0.20-acre of constructed drainage ditch is present within the study area. Segments of drainage ditch are located along the eastern boundary of the study area and just west of the detention basin within a developed area. A large stretch of the northern portion of the constructed ditch has been filled, presumably by adjacent homeowners discarding yard debris. As a result, a short reach of intact ditch in the northern part of the study area has been isolated from the remainder of the intact ditch to the south. The drainage ditch is not maintained.

⁷ State Water Resources Control Board. *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. Adopted April 2, 2019 and Revised April 6, 2021.



A total of 0.01-acre of constructed roadside ditch segments are also present within the study area. The ditch segments were created to capture storm water runoff from the road and surrounding area and are largely unvegetated. The roadside ditches are minimally maintained by weed removal. All of the ditch segments are located along the eastern side of Waterman Road and drain into the City's storm water system at the southwestern corner of the study area, just north of Cruz Court.

All artificial wetlands that are less than an acre in size and do not satisfy other State wetland definition criteria are not waters of the State.⁸ According to CFR Title 40 Section 120.2(b), ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water are not considered to be waters of the U.S. The USACE will determine whether the drainage and roadside ditches are federally jurisdictional when issuing a jurisdictional determination for the study area.

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.

⁸ State Water Resources Control Board. *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. Adopted April 2, 2019 and Revised April 6, 2021.



According to the records of the California Natural Diversity Database (CNDDDB), maintained by the CDFW, 22 special-status plant species and 20 special-status wildlife species have the potential to occur on or within five miles of the study area. Table 4.3-3 lists 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 CNDDDB 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 CNDDDB, 22 special-status plant species have the potential to occur on or within five miles of the study area, six of which have been documented within five miles of the study area (see Figure 4.3-3). 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 22 special-status plant species were determined to have the potential to occur within the study area, but were determined to be absent from the study area at the time of protocol-level surveys. Habitat is not present for 11 of the special-status plant species. Based on protocol-level surveys, legumere is considered to be present in the study area. The locations of special-status plant and wildlife species observed within or adjacent to the study area during protocol-level surveys are shown in Figure 4.3-3. The following discussions provide further details of the 11 special-status plant species with the potential to or are 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 2023 or 2024 protocol-level special status plant surveys of the study area and has not been documented within five miles of the study area in the CNDDDB. Based on the above, big-scale balsamroot is *absent* within the study area.



**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				
<i>Balsamorhiza macrolepis</i> 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.	Absent. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.
<i>Brasenia schreberi</i> 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.
<i>Carex comosa</i> Bristly sedge	--	CRPR 2B.1	Occurs in freshwater marshes or other wet habitats at elevations between zero and 2,050 feet.	Habitat Not Present. The study area does not support habitat for the species.
<i>Cicuta maculata</i> var. <i>bolanderi</i> 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.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i> 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.
<i>Downingia pusilla</i> 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.	Absent. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.
<i>Gratiola heterosepala</i> 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.	Absent. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> 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. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.
<i>Juncus leiospermus</i> var. <i>ahartii</i> 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.	Absent. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.
<i>Lasthenia chrysantha</i> 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.

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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
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> 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.
<i>Legenere limosa</i> Legenere	--	CRPR 1B.1	Occurs in vernal pools at elevations between five and 2,885 feet.	Present. The species was observed within the site during protocol surveys in 2023 and 2024.
<i>Lepidium latipes</i> var. <i>heckardii</i> 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.
<i>Lilaeopsis masonii</i> 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.
<i>Limosella australis</i> 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.
<i>Navarretia myersii</i> ssp. <i>myersii</i> Pincushion navarretia	--	CRPR 1B.1	Occurs in vernal pools (often acidic) at elevations between 65 feet and 1,085 feet.	Absent. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.
<i>Orcuttia tenuis</i> 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.	Absent. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.
<i>Orcuttia viscida</i> Sacramento Orcutt grass	FE	CE, CRPR 1B.1	Occurs in vernal pools at elevations between 100 and 330 feet.	Absent. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.
<i>Sagittaria sanfordii</i> 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. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.
<i>Scutellaria galericulata</i> 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.	Absent. Marginally suitable habitat is present. The species was not found during protocol surveys of the study area in 2023 and 2024.

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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
<i>Scutellaria lateriflora</i> 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.
<i>Trifolium hydrophilum</i> 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				
<i>Bombus crotchii</i> Crotch's bumble bee	--	CC	Occurs in open grasslands and scrub habitats.	Low. Based on Madrone's experience and local knowledge in the area, the annual grasslands within the study area could support suitable foraging flower populations, but ground squirrel burrows that would provide potential nesting and overwintering habitat are absent.
<i>Bombus occidentalis</i> Western bumble bee	--	CC	Occurs in meadows and grasslands with blended floral resources. Historically known to occur throughout the mountains and northern coast of California, is now largely confined to high elevation sites and isolated areas on the northern California coast.	Habitat Not Present. The study area is not within the range of the species.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT	--	Occurs in vernal pools.	High. Based on Madrone's experience and local knowledge in the area, the vernal pools and seasonal wetlands within the study area provide suitable habitat for the species.
<i>Danaus plexippus</i> Monarch butterfly	FC	--	A migratory species that is most prevalent in the Central Valley in summer and early fall. Dependent upon milkweed (<i>Asclepias</i> 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 or during the supplemental aquatic resources delineation in 2023.
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle (VELB)	FT	--	Dependent upon elderberry (<i>Sambucus</i> species) shrubs as primary host species.	Habitat Not Present. Elderberry shrubs do not occur within the study area.



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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
<i>Lepidurus packardii</i> Vernal pool tadpole shrimp	FE	--	Occurs in vernal pools.	High. Based on Madrone's experience and local knowledge in the area, the vernal pools and seasonal wetlands in the study area provide suitable habitat for the species.
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	FT	CT, CSC	Breeds in ponds or other deeply ponded wetlands and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging.	Habitat Not Present. The study area is not within the range of the species.
<i>Spea hammondi</i> 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				
<i>Actinemys marmorata</i> Northwestern pond turtle	PT	CSC	Occurs in ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	Low. The deeper portions of the detention basin are perennially inundated and, based on Madrone's experience and local knowledge in the area, provide very limited habitat for the species.
<i>Thamnophis gigas</i> 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. The study area does not support habitat for the species.
Birds				
<i>Agelaius tricolor</i> Tricolored blackbird	--	CE, CSC	Colonial nester in cattails, bulrush, or blackberries associated with marsh habitats.	Low. Based on Madrone's experience and local knowledge in the area, the study area lacks suitable nesting habitat, but the annual grassland provides suitable foraging habitat for the species.

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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
<i>Aquila chrysaetos</i> 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 urban development, and while annual grassland provides suitable foraging habitat, the species is unlikely to forage in the study area.
<i>Athene cunicularia</i> 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, the marginally suitable burrow habitat may be present in debris scattered around the study area.
<i>Buteo swainsoni</i> 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 grassland throughout the study area represents suitable foraging habitat for Swainson's hawk. Suitable nest trees are located adjacent to and within 0.25-mile of the study area.
<i>Circus cyaneus</i> 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 grassland throughout the study area provide suitable foraging habitat for the species. Suitable nesting habitat does not occur within the study area.
<i>Elanus leucurus</i> 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. Suitable nest trees are located adjacent to and within 0.25-mile of the study area.
<i>Haliaeetus leucocephalus</i> Bald eagle	--	CE	Nests in large trees within one mile of lakes, rivers, or larger streams.	Habitat Not Present. The study area lacks suitable foraging and breeding habitat.

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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
<i>Lanius ludovicianus</i> 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 grassland throughout the study area represents suitable foraging habitat for loggerhead shrike. Trees and shrubs adjacent to the study area provide suitable nesting habitat.
Mammals				
<i>Antrozous pallidus</i> Pallid bat	--	CSC, WBWG H	Inhabits 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.	Low. Potential foraging only. Based on Madrone's experience and local knowledge in the area, the study area lacks suitable roosting habitat.
<i>Taxidea taxus</i> 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 high degree of annual disturbance from goat grazing, and 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

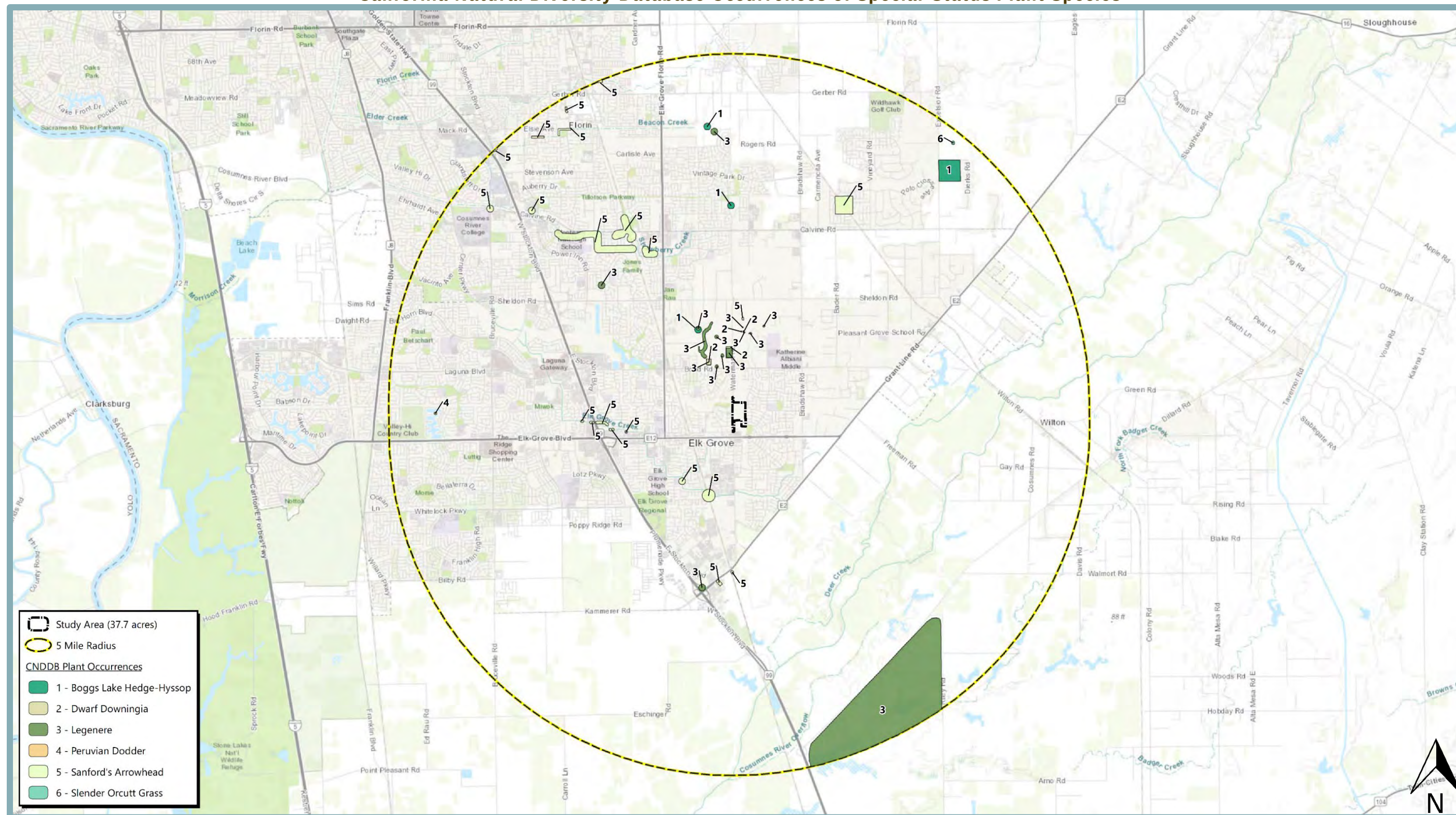
CT: CDFW Threatened
FC: Federal Candidate for Listing
PT: Federal Proposed Threatened
FD: Federally Delisted
FE: Federally Endangered

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.



Figure 4.3-3
California Natural Diversity Database Occurrences of Special-Status Plant Species



Source: Madrone Ecological Consulting, 2025.

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.

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 2023 or 2024 protocol-level special status plant surveys of the study area. Two records of dwarf downingia exist within five miles of the study area in the CNDDDB, the nearest of which is Occurrence #55, located approximately 0.6 mile northwest of the study area on the northwest corner of Bond Road and Waterman Road (see Figure 4.3-3). Based on the above, dwarf downingia is *absent* 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 2023 or 2024 protocol-level special status plant surveys of the site. Four records of Boggs Lake hedge-hyssop exist within five miles of the study area in the CNDDDB. The nearest occurrence (CNDDDB Occurrence #33) is located approximately 1.1 miles northwest of the study area (see Figure 4.3-3). Based on the above, Boggs Lake hedge-hyssop is *absent* 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 deeper portions of the detention basin within the study area represent 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. The species was not identified as a target species for this survey, but would have been documented if present, as the surveys were floristic in nature. The species has not been documented within five miles of the study area in the CNDDDB. Based on the above, woolly 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 larger vernal pools and seasonal wetlands within the study area represent suitable habitat for the species. The species was not observed during the 2023 or 2024 protocol-level special status plant surveys of the site. This species has not been documented within five miles of the study area in the CNDDDB. Based on the above, Ahart's dwarf rush is *absent* 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 five and 2,885 feet, and blooms from April to June.

The vernal pools and seasonal wetlands within the study area represent suitable habitat for the species. The species was observed in six vernal pools within the study area during the 2023 and 2024 protocol-level special-status plant surveys. Based on the above, legenere is *present* 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 2023 or 2024 protocol-level special status plant surveys of the site and is considered absent from the site. The species has not been documented within five miles of the study area in the CNDDDB. Based on the above, pincushion navarretia is *absent* 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 2023 or 2024 protocol-level special status plant surveys of the site. One record of slender Orcutt grass exist within five miles of the study area in the CNDDDB (CNDDDB Occurrence #90), located approximately 4.8 miles northeast of the site, 0.3-mile northeast of the intersection of Excelsior Road and Dierks Road, south of Laguna Creek (see Figure 4.3-3). Based on the above, slender Orcutt grass is *absent* 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 has not been documented within five miles of the study area in the CNDDDB. Based on the above, Sacramento Orcutt grass is *absent* 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.

The deeper portions of the detention basin within the study area represent 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 11 records of Sanford's arrowhead exist within five miles of the study area in the CNDDDB, the nearest of which (Occurrence #74) is located approximately one mile to the south, approximately one mile north of Grant Line and Waterman Road (see Figure 4.3-3). Based on the above, Sanford's arrowhead is *absent* within the study area.

Marsh Skullcap

Marsh skullcap (*Scutellaria galericulata*) is not a State or federally listed species, but is classified as a CRPR List 2B.2 plant. The perennial rhizomatous herb is found in various habitats including lower montane coniferous forest, mesic meadows and seeps, and marshes and swamps. Marsh skullcap is found from approximately sea level to 6,890 feet in elevation and blooms from June through September.

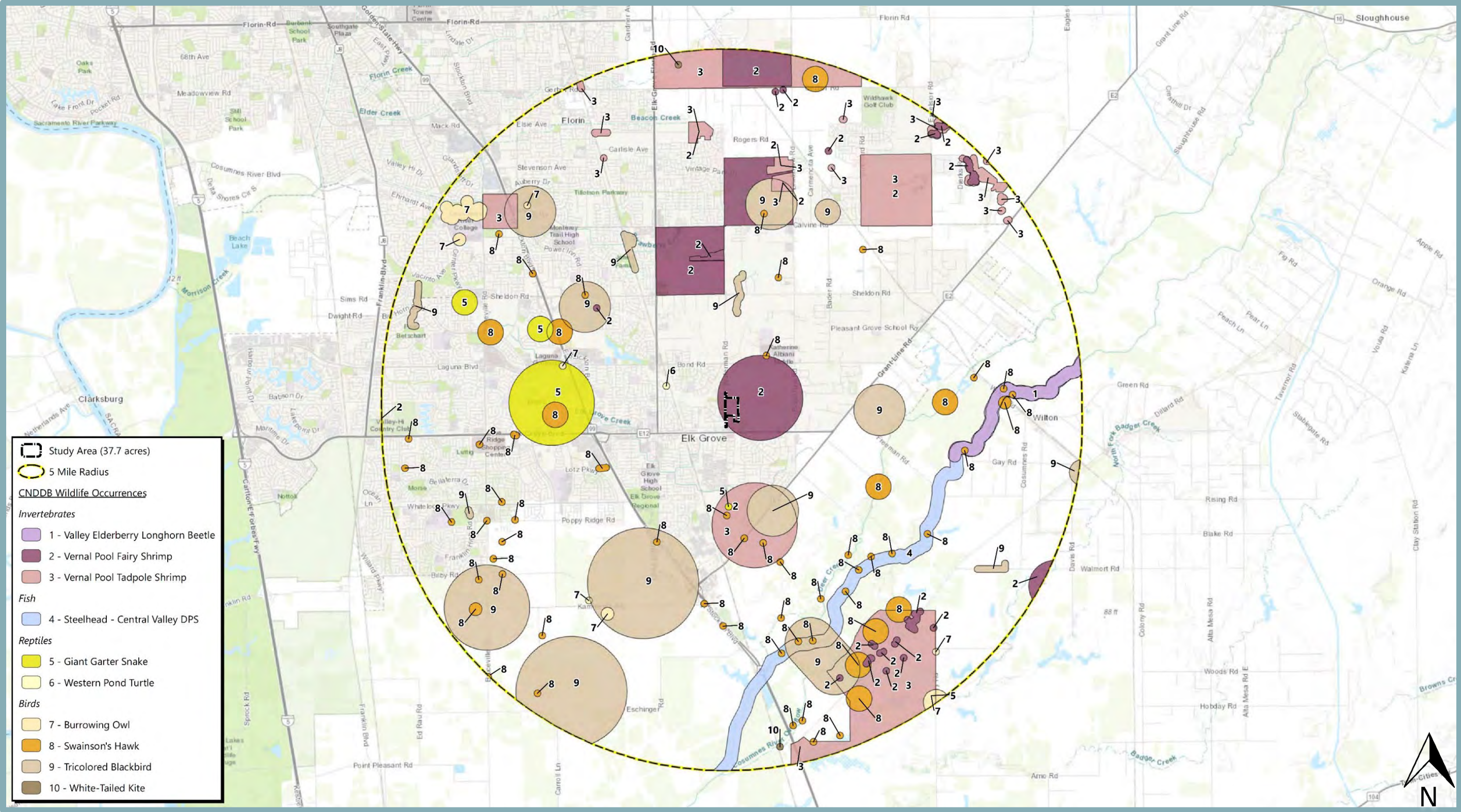
The deeper portions of the detention basin within the study area provide marginally suitable habitat for the species. The species was not observed during the 2023 or 2024 protocol-level special status plant surveys of the study area. The species was not identified as a target species for the survey, but would have been documented if present, as the surveys were floristic in nature. The species has not been documented within five miles of the study area in the CNDDDB. Based on the above, marsh skullcap is *absent* within the study area.

Listed and Special-Status Wildlife Species

According to the records search conducted as part of the BRA, 20 special-status wildlife species have the potential to occur on-site or within five miles of the study area, nine of which have been recorded within five miles of the study area (see Figure 4.3-4). Table 4.3-3 lists all 20 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), 15 of the 20 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 vernal pool fairy shrimp, vernal pool tadpole shrimp, western spadefoot, Swainson's hawk, northern harrier, white-tailed kite, and loggerhead shrike. Species that are considered to have *low* potential to occur within the study area include Crotch's bumble bee, monarch butterfly, northwestern pond turtle, tricolored blackbird, golden eagle, burrowing owl, pallid bat, and American badger.



Figure 4.3-4
California Natural Diversity Database Occurrences of Special-Status Wildlife Species



Source: Madrone Ecological Consulting, 2025.



The following discussions provide further details of the 15 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.

Two different species of bumble bee were observed in the study area during the special-status plant survey, but neither were identified to species. The study area provides suitable foraging habitat for the species, but nesting or overwintering habitat is absent. 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 documented approximately 10.4 miles to the southwest of the study area, near the Interstate 5/Twin Cities Road interchange, in 2023. The iNaturalist database shows one research grade record in the City of Galt, approximately 11.4 miles to the south of the study area, recorded in 2020. Based on the above and Madrone's experience and local knowledge in the area, Crotch's bumble bee has *low* 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 and seasonal wetland swales within the study area represent suitable habitat for vernal pool fairy shrimp, though most of the wetland areas have extensive algal matting/thatch covering the ground. A total of 13 presumed extant CNDDDB occurrences of vernal pool fairy shrimp have been recorded within five miles of the study area, which include one general location record (an area that covers a large area between Waterman Road and Bradshaw Road) from 1993 that includes the study area (Occurrence #164). The most recent record is from 2014 (Occurrence #894) and is from a dry-season sample collected from a detention basin approximately 3.8 miles to the northeast of the study area (see Figure 4.3-4). Protocol-level surveys for vernal pool fairy shrimp have not been conducted within the study area. Based on the above and Madrone’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. A few scattered narrowleaf milkweed (*Asclepias fascicularis*) plants occur within the study area, which represent larval host plants for the species. Although suitable floral resources occur, the paucity of larval



host plants substantially reduces the likelihood of the species using the study area. CNDDDB occurrences of this species are not documented within five miles of the study area, but the CNDDDB only tracks over-wintering locations of this species, which occur near the coast. The Western Monarch Milkweed Mapper (WMMM) shows a 2019 record of a monarch approximately 2.8 miles east of the study area. The study area is not proximate to any overwintering areas for the species. Based on the above and Madrone'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 packardii*) 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 wetland swales within the study area provide suitable habitat for the species, though most of the wetland areas have extensive algal matting/thatch covering the ground. A total of 13 presumed extant documented CNDDDB occurrences of vernal pool tadpole shrimp are within five miles of the study area (see Figure 4.3-4). The nearest occurrence (CNDDDB Occurrence #86) is located approximately 0.9 mile south of the study area, near the intersection of Grant Line Road and Mosher Road. Protocol-level surveys for the species have not been conducted within the study area. Based on the above and Madrone'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 hammondi*) 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. The CNDDDB and iNaturalist databases do not list any occurrences of this species within five miles of the study area. The nearest recent, presumed extant CNDDDB occurrence is located approximately 9.3 miles to the northeast, in Mather Regional Park (Occurrence #396). Adults were first recorded in the occurrence location in 1993, and tadpoles were observed in



2018. Based on the above and Madrone'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.

Deeper portions of the detention basin within the study area are perennially inundated and provide very limited habitat for the species. Because females move overland for up to 100 meters (325 feet) in the spring and summer to find suitable sites for egg-laying, areas to the north of the detention basin and within the study area could support dispersing turtles, though such portion of the study area is extensively disturbed as a result of grazing by goats. The CNDDDB lists one occurrence of the species within five miles of the study area (Occurrence #1217), recorded in 2010 in an area dominated by blue oak woodland with a network of ponds and seasonal creeks (see Figure 4.3-3). Based on the above and Madrone'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 (*Cirsium* 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.

Nesting habitat is not present within the study area. The annual brome grassland throughout the study area provides suitable foraging habitat for the species. The CNDDDB lists 11 presumed extant nesting records for tricolored blackbird within five miles of the study area, the nearest of which is approximately one mile to the south of the study area, along Grant Line Road between Waterman Road and Bradshaw Road (Occurrence #301) (see Figure 4.3-3). Nesting at the record site was last recorded in 1998. The Cornell Lab of Ornithology's eBird database (eBird) shows limited unconfirmed observations of flyover birds approximately two miles to the northwest of the study area, but nesting observations are not listed in the area. Based on the above and Madrone's experience and local knowledge in the area, tricolored blackbird has *low* 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.

While the annual brome grasslands, seasonal wetlands, and vernal pools within the study area represent suitable foraging habitat for the species, the species is unlikely to use the site for foraging given the site's proximity to development and small size. The CNDDDB does not list any occurrences of golden eagle nest sites within five miles of the study area. The eBird database lists one confirmed observation from 2014 along Grant Line Road, approximately six miles to the east of the study area. The study area lacks suitable nesting habitat. Based on the above and Madrone'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. The species is 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 grasslands, seasonal wetlands, and vernal pools within the study area provide 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 CNDDDB lists seven presumed extant occurrences of burrowing owl within five miles of the study area, the nearest of which was recorded in 2007 and is located approximately 2.4 miles northwest of the study area, near the State Route (SR) 99 southbound on-ramp at Laguna Boulevard (CNDDDB Occurrence #1258) (see Figure 4.3-4). The nearest eBird record is from 2020 and is located approximately 2.2 miles southwest of the study area, in a driveway near a small field near the intersection of Stockton Boulevard and Twin Cities Road. 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 grasslands, seasonal wetlands, and vernal pools throughout the study area provide suitable foraging habitat for Swainson's hawk. Suitable nest trees are not present on-site, but trees within 0.25-mile of the study area may provide suitable nesting habitat. A total of 49 presumed extant occurrences of Swainson's hawk nests have been documented within five miles of the study area in the CNDDDB, the nearest of which is located approximately 0.7-mile to the



northeast of the study area (CNDDDB Occurrence #4663) (see Figure 4.3-4). The record was a eucalyptus tree that was removed in 2003. The eBird database includes numerous observations of Swainson's hawks within five miles of the study area over the last 10 years, with one observation of active nest building in 2017 near the Sheldon-Pleasant Grove Community Stadium, approximately 2.5 miles to the north of the study area. 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 grasslands, seasonal wetlands, and vernal pools throughout the study area provides suitable foraging habitat for the species, though the species is not likely to nest on-site due to regular site disturbance and the proximity to developed areas. Northern harrier has not been documented in the CNDDDB within five miles of the study area, which is likely due to lack of reporting, rather than scarcity of the species. The nearest recent observation records of the species in eBird (2021) occur along the Laguna Creek Parkway Trail, approximately 0.5 mile northwest of the study area, and near Camden Park, approximately 1.3 miles northwest of the study area. Both records are located along Laguna Creek. 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 grasslands, seasonal wetlands, and vernal pools throughout the study area provides suitable foraging habitat for white-tailed kite, and the trees adjacent to the study area provide suitable nesting habitat. The eBird database shows several recent unconfirmed observations at Jack Hill Park, located approximately 0.25 mile west of the study area. 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 annual brome grasslands within study area represent suitable foraging habitat for the species, and the species could use trees in adjacent areas for perching. The species has not been documented in the CNDDDB 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 two miles west 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 is not present within the study area, but the annual brome grassland within the study area could provide foraging habitat. Pallid bat has not been documented in the CNDDDB 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 *low* 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 CNDDDB 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

Acorn Arboricultural Services, Inc. conducted a field reconnaissance within the site as part of an Arborist Report prepared for the Project (see Appendix E).⁹ According to the Arborist Report, trees protected under the City's Tree Preservation and Protection Ordinance (Elk Grove Municipal Code [EGMC] Chapter 19.12) were not found on or overhanging the site.

According to the peer review of the Arborist Report, a number of non-native trees are located on-site and overhanging the site. A majority of such trees are located beneath the on-site powerline towers. Many ornamental and native trees are located within the BRA study area. Native trees include valley oak and several species of willow.

⁹ Acorn Arboricultural Services, Inc. *Arborist Report Summerflats City of Elk Grove CA; APNs 127-01509-001 & 002, 127-0150-009*. April 22, 2022.



Wildlife Corridors

The study area is surrounded by urban residential to both the east and west, and by rural residential and urban parks to the south. Beyond the annual grassland field to the north of the site is more rural and urban residential uses. Because the study area is predominantly surrounded by existing development and natural areas for wildlife to travel from do not exist, minimal terrestrial wildlife is likely to access the study area. Wildlife corridors do not occur within the study area.

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 project, by providing for the protection of the affected species.

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 (CFGF) 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 U.S. 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 U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the U.S. 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 U.S. can be defined by exhibiting a defined bed and bank and ordinary high-water mark (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 CFGF, such as CESA (CFGF Section 2050, et seq.), Fully Protected Species (CFGF Section 3511) and the Lake or Streambed Alteration Agreement (LSAA) Program (CFGF 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 right-of-way (ROW).



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 diameter at standard height (DSH) of greater than six inches:
 - o Coast live oak (*Quercus agrifolia*);
 - o Valley oak (*Quercus lobata*);
 - o Blue oak (*Quercus douglasii*);
 - o Interior live oak (*Quercus wislizenii*);
 - o Orace oak (*Quercus X moreha*);
 - o California sycamore (*Platanus racemosa*); and
 - o 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) CNDDDB query of the study area and all areas within five miles of the study area (see Figure 4.3-3 and Figure 4.3-4);
- 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.



The results of previously completed surveys were also reviewed and information contained therein was incorporated into the BRA as appropriate. The previous data sources include the following:

- Natural Investigations Company. *Biological Assessment (E.S.A.) and Biological Resources Assessment (CEQA) for the Housing Development Project at Waterman Road, Elk Grove, California*. 2022.
- Verified aquatic resources delineation map for the Waterman Road Property prepared by Natural Investigations Company, 2021.

Field Surveys

Madrone conducted field surveys of the study area on May 4 and 9, 2023; June 9, 2023; September 6, 2023; December 9, 2023; May 1, 9, and 20, 2024; and June 21, 2024. The purpose of the field surveys were to map vegetation communities/land covers, evaluate the location and extent of previously mapped aquatic resources, generally evaluate the habitat conditions in the study area, and assess the suitability of the habitats within the study area to support special-status species.

Protocol-level special-status plant surveys were conducted during the May and June 2023 and 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.

Because the limits of the study area changed from the time Natural Investigations Company completed an aquatic resource delineation of the site in 2021, Madrone completed a supplemental aquatic resource delineation of the study area on September 6, 2023. Madrone updated the aquatic resource delineation map to reflect the updated study area, submitted the comprehensive map to the USACE, and received a PJD for the map in October 2024.

The results of the protocol-level surveys described above were incorporated into and included as the following attachments to the BRA:

- Special-Status Plant Survey Report (Attachment E of the BRA); and
- PJD and Aquatic Resources Delineation Map (Attachment F of the BRA).

Arborist Report

Acorn Arboricultural Services, Inc. prepared an Arborist Report for the Project, which documented their findings of a field reconnaissance of the site conducted on April 12, 2022. During the field reconnaissance, a qualified biologist conducted a review of the on-site and overhanging trees to determine whether the trees meet the EGMC criteria for protected trees.

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 The BRA referenced herein revises the

¹⁰ Live Oak Associates, Inc. *Peer review for the proposed Summer Flats Peer Review project, Elk Grove, Sacramento County, California (PN 2791-01)*. April 30, 2025.



original report based on the peer review recommendations from LOA. Madrone also provided additional supplemental responses to the peer review comments from LOA.¹¹

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, wooly rose-mallow, Ahart's dwarf rush, pincushion navarretia, slender Orcutt grass, Sacramento Orcutt grass, Sanford's arrowhead, and marsh skullcap. The protocol-level special-status plant surveys conducted throughout the study area in 2023 and 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, and vernal pools 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 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 would result in the fill of vernal pools that support populations of legenere (see Figure 4.3-5). Legenere was not identified in any of the seasonal wetlands, seasonal wetland swales, or vernal pools that would be avoided. Therefore, Project construction would result in the loss of all populations of the species in the study area.

Based on the above, 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.

¹¹ Madrone Ecological Consulting. *Response to Peer Review of Biological Resources Documentation for Summer Flats*. May 15, 2025.



Figure 4.3-5
Terrestrial Land Cover and Aquatic Resources Impacts



Source: Madrone Ecological Consulting, 2025.



- 4.3-1(a) *Prior to approval of any improvement plans, a special-status plant survey shall be conducted in areas where the final development footprint was not surveyed during the 2024 protocol special-status plant survey. The survey shall be conducted at the time of year when special-status/rare plant species are both evident and identifiable, and shall be conducted by a qualified botanist for all areas of suitable habitat for special-status plants within the final development footprint.*

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 legenera. 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 legenera 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. Preservation: 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. Relocation or Translocation: 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. Avoidance and Monitoring: Work may be allowed in 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 by a qualified biologist and the project contractor. 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 marginally suitable habitat for Crotch's bumble bee due to low habitat quality, small patch size, and isolation from other patches. 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 approximately 19.1 acres of impacts to the annual brome grasslands (see Figure 4.3-5). The BRA concluded that removal of such habitat could 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.

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 the site (e.g., grading, vegetation removal, staging) shall take place between September 1 and March 31 (i.e., outside the colony active period) to avoid potential impacts on Crotch's bumble bee. 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 with 10 or more years of experience conducting biological resource surveys within California 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.

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 bee 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 Crotch's 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 1.01 acres of vernal pool and 1.70 acres of seasonal wetlands that are considered potential habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp. A total of 0.95-acre of on-site vernal pool habitat would be permanently impacted by development of the Project (see Figure 4.3-5). 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.

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 measure would reduce the above potential impact to a *less-than-significant* level.

4.3-3 *Prior to the commencement of any construction activities, 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 the USACE determines that the vernal pools that would be filled as part of the Project are waters of the U.S., as such consultation is required pursuant to Mitigation Measure 4.3-10(a), FESA consultation shall be conducted as part of the USACE permitting process under FESA Section 7. If the USACE determines that the vernal pools are not waters of the U.S., the Project proponent shall consult with the USFWS under FESA Section 10. Regardless of the consultation method, if vernal pool fairy or vernal pool tadpole shrimp are found during the surveys, 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. 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 widely scattered narrow-leaf 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 measure 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 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. The 0.95-acre of vernal pools that would be filled as a result of construction provide suitable breeding habitat for western spadefoot, and the 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 vernal pools and annual brome grasslands associated with Project buildout could substantially adversely affect western spadefoot if the species is present at the time of construction.

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, a survey of all suitable aquatic habitat within the Biological Resources Assessment (BRA) study area (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 suitable aquatic habitat 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 hammondi) 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. CDFW may require the biologist to have a Scientific Collecting Permit that allows handling of western spadefoot prior to approval.*

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*.

Northwestern pond turtle is proposed for listing as threatened under FESA and is a CDFW Species of Special Concern. Because the portion of the study area within 100 meters of the detention basin is subject to extensive disturbance by grazing, northwestern pond turtle would not be expected to use the study area for nesting. However, if northwestern pond turtle use perennially inundated portions of the detention basin and construction either results in direct impacts to the aquatic habitat or impacts to dispersing turtles, individual turtles could be injured or killed as a result.

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 would affect inundated portions of the detention basin 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 inundated portions of the detention basin. 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 inundated portions of the detention basin 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 the detention basin 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 the detention basin 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 inundated portions of the detention basin 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 inundated portions of the detention basin 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 within 24 hours prior to construction in areas within 325 feet of the limits of the detention basin. 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*.

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, golden eagle, tricolored blackbird, and loggerhead shrike. If nesting songbirds and raptors protected under the MBTA and CFGC were nesting within the study area, 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. While approximately seven acres of annual brome grassland would be retained on-site in designated open space areas, Project construction would result in direct impacts of up to 19.9 acres of annual brome grassland and 0.95-acre of vernal pool that currently provide foraging habitat for foraging raptors.

In addition, according to the BRA, although ground squirrel burrows were not observed within the study area, the annual brome grassland 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.

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 are proposed during the bird nesting season (February 1 through 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, pre-construction (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 tree-nesting raptors, and
- 500 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 that the young have fledged and/or are no longer dependent on the nest;
- Occupied burrowing owl burrows: A minimum buffer of 250 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 that 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. 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 (late September to February 1) 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): 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:
 - o 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.
 - o The land shall be protected through either fee title or a conservation easement ("legal agreement") acceptable to the City.
 - o The legal agreement shall be recordable and contain an accurate legal description of the mitigation land.



- o *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.*
 - o *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.*
 - o *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.*
 - o *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.*
 - o *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.*
 - o *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 commencement of construction activities (e.g., grading activities, infrastructure construction). 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, the impact is *less than significant*.

The pallid bat is a California Species of Special Concern and is classified as WBWG High Threat Rank. Pursuant to the BRA, trees and/or buildings in residential areas adjacent to the site could provide roosting habitat for special-status bats. However, the Project would not involve disturbance to any existing buildings, and the trees along Waterman Road that may need to be removed as a result of the Project do not provide suitable roosting habitat for special-status bat species.

Based on the above, the Project would not 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 ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.3-9 Have a substantial adverse effect, either directly or through habitat modifications, on American badger. Based on the analysis below, the impact is *less than significant*.

The annual brome grasslands in the study area provide foraging habitat for American badger, a California Species of Special Concern. The Project would result in the loss of up to 19.9 acres of annual brome grassland, which would affect the regional availability of foraging habitat for American badger. However, because the site is located within an urbanizing area and is predominantly surrounded by development, according to the BRA, American badger using the site is unlikely. As such, direct impacts to the species are not anticipated.

Based on the above, the Project would not 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 ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.



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. According to the BRA, the study area does not include riparian habitat or other Sensitive Natural Communities. Figure 4.3-5 and Table 4.3-4 summarize the terrestrial land cover impacts associated with the Project. The Project would result in the conversion of 19.9 acres of annual brome grassland. However, some of the affected area would ultimately be retained in the proposed open space area, and most of the affected area would likely revert back to annual brome grassland following the completion of construction. The City of Elk Grove does not have policies or regulations that require mitigation for the loss of annual brome grassland.

Table 4.3-4 Terrestrial Land Cover and Aquatic Resource Impacts Within Study Area			
Community / Resource	Study Area (Acres)	Permanent Impacts (Acres)	Avoided Area (Acres)
Terrestrial Land Covers			
Annual Brome Grassland	26.9	19.9	6.9
Rural Residential	0.2	0.2	0.0
Road	6.8	4.5	2.3
Total Terrestrial Land Covers	33.8	24.6	9.2
Aquatic Resources			
<i>Wetlands</i>			
Seasonal Wetland	1.70	0.00	1.70
Seasonal Wetland Swale	0.01	0.00	0.01
Vernal Pool	1.01	0.95	0.07
<i>Non-Wetlands</i>			
Detention Basin	0.97	0.08	0.88
Drainage Ditch	0.20	0.06	0.13
Roadside Ditch	0.01	0.01	0.00
Total Aquatic Resources	3.90	1.10	2.79
Total	37.7	25.7	12.0
<i>Source: Madrone Ecological Consulting, 2025.</i>			

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 3.90 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 were verified by the USACE with a PJD, and were determined to be potentially jurisdictional aquatic resources regulated under Section 404 of the CWA.¹²

Under the current definition of waters of the U.S. (January 2023 Clean Water Rule, as amended in August 2023), wetlands are only considered to be jurisdictional if the wetlands have a continuous surface connection to a relatively permanent water. The January 2023 rule defines a continuous surface connection for wetlands as physically abutting or touching relatively permanent waters; a connection to relatively permanent waters by a discrete feature, such as a non-jurisdictional ditch, swale, pipe, or culvert; or where a natural berm, bank, dune, or similar natural landform between an adjacent wetland and a relatively permanent water does not sever a continuous surface connection to the extent the natural landform provides evidence of a continuous surface connection. The August 2023 amended rule did not modify the definition of continuous surface connection. The USACE would determine whether some or all of the wetlands in the study area are jurisdictional, pursuant to the CWA, using the submitted request for an Approved Jurisdictional Determination (AJD).

A number of aquatic features are not considered to be waters of the U.S. under the Clean Water Rule, (CFR Title 40 Section 120.2[b]), including ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water (CFR Title 40 Section 120.0[b][3]) and artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing (CFR Title 40 Section 120.2[b][5]). The USACE would determine whether some or all of the ditches and/or the detention basin in the study area are jurisdictional under the CWA using the submitted request for an AJD.

The SWRCB State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State describes activities that are excluded from the application procedures for regulation of discharges of dredged or fill material to waters of the State. Excluded activities include those that are exempt under CWA Section 404(f). The Procedures note that the State may elect to issue or waive waste discharge requirements under the Porter-Cologne Act for exempt activities. CWA Section 404(f) activities include normal farming; maintenance activities; construction and maintenance of farm ponds, stock ponds, irrigation ditches, or the maintenance of drainage ditches; construction of temporary sedimentation basins; activities for which the State has an approved CWA Section 208(b)(4) program; and construction or

¹² U.S. Army Corps of Engineers, Sacramento District. *Preliminary Jurisdictional Determination*. SPK-1990-01278. May 26, 2023.



maintenance of farm roads, forest roads, or temporary roads for moving mining equipment.

Of the approximately 3.90 acres of aquatic resources mapped within the study area, as shown in Table 4.3-4, a total of 1.10 acres would be permanently filled as a result of Project construction. Of the total amount, 0.95-acre of wetlands (vernal pool) would be impacted, while 0.15-acre of constructed aquatic features (detention basin and drainage and roadside ditches) could be impacted. The Project would avoid impacts to all of the seasonal wetlands and seasonal wetland swales in the study area (1.70 acres and 0.01-acre, respectively) and 0.07-acre of the total 1.01 acres of vernal pool. If the USACE or RWQCB takes jurisdiction over the aquatic resources within the study area, the Project would be required to obtain a Section 404 permit from the USACE and a Section 401 permit from the RWQCB and, accordingly, 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 to the U.S. Army Corps of Engineers (USACE) for verification purposes and determination as to whether the Project activities would 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 Clean Water Act (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. waters of the U.S., the Project proponent 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.

4.3-11 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.

As discussed above, the BRA study area is surrounded by urban residential to both the east and west, and by rural residential and urban parks to the south. Beyond the annual grassland field to the north of the site is more rural and urban residential uses. Because the study area is predominantly surrounded by existing development and natural areas for wildlife to travel from do not exist, minimal terrestrial wildlife is likely to access the study area. Wildlife corridors do not occur within the study area. As such, development of the Project 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, the impact is less than significant.

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. The Project may require the removal of two small non-native trees along the east shoulder of the Waterman Road frontage, along the edge of the road ROW. However, as discussed above, according to the Arborist Report prepared for the Project, trees protected under the City's Tree Preservation and Protection Ordinance (EGMC Chapter 19.12) were not found on or overhanging the site. As such, development of the Project would not require a Tree Permit.

Based on the above, development of the Project would not conflict with a local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance, 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.

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 and with implementation of mitigation, 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, and rural residential. In addition, the study area includes aquatic resources, including seasonal wetland, seasonal wetland swale, vernal pools, detention basin, drainage ditch, and roadside ditch. Development of the Project 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. In addition, while the Project would result in the loss of a portion of the existing on-site habitat, the Project would include a 14.7-acre open space lot to allow for the preservation of seasonal wetlands 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 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 acknowledging 49 resources on the Elk Grove Register and adding 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 region, 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 region.

¹ Natural Investigations Company. *Cultural Resources Investigations for the Waterman Road Development Project, Elk Grove, Sacramento County, California*. February 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.



The patterns mark changes in distinct artifact types, subsistence orientation, and settlement 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 Windmill 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 (Windmill 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.

Archaeological sites within the Archaic Period/Windmill 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 subsisted 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/Windmill 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/Windmill 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/Berkeley 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 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 Halotis 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 Windmill 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 site 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 region contains several river systems, including the Sacramento, American, and Cosumnes rivers. Historically, the region 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 City of Elk Grove area currently consists of a mix of cropland and urban environments.



A review of 19th- and 20th-century maps and aerial photos show transmission lines on the site, with the earliest evidence being a 1952 U.S. Geological Service (USGS) topographic map. Two additional transmission lines appear on the site prior to 1966, and another transmission line appears on the site between 1971 and 1981. According to the Cultural Resources Investigation, three of the transmission lines located in the on-site utility easements are owned by Western Power Administration (Western) and one transmission line is owned by Pacific Gas and Electric (PG&E). It should be noted that the transmission lines identified in the Cultural Resources Investigation as being owned by Western are currently owned by the U.S. Bureau of Reclamation (USBR). The foregoing transmission lines are located within the on-site easements owned by USBR and PG&E.

The approximately 27.6-acre site contains grassland, and within the grassland are numerous depressions where pooling has occurred. Aboveground distribution power lines and utility poles, as well as barbed wire fencing, exist along Waterman Road, parallel to the site's western boundary. Three easements containing the aforementioned transmission towers, utility poles, and overhead power transmission lines are generally located within the eastern half of the site. A number of non-native trees are located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers.

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 September 8, 2022 (NCIC File No. SAC-22-185). The records search determined that the site was included in two previous cultural resources studies conducted in 1979 and 2003, and that 12 studies were conducted within 0.5-mile of the site between 1974 and 2019. Based on the findings of the 14 previously conducted studies, cultural resources have not been documented within the site.

Additionally, NIC conducted a field survey of the site on September 15, 2022. During the field surveys of the site, prehistoric or historic sites or artifacts were not identified. However, a square concrete well pad with a metal post at each corner and part of a pump protruding from it; a pole formerly used for an electrical connection; a two-track access road along the north and east side of the site; six steel transmission towers, and four transmission lines associated with the towers, were identified in the site. NIC determined that the transmission towers and lines are part of an electric distribution network operated by USBR and PG&E. The easternmost transmission line on the site, located in the northeast corner of the site, is owned by PG&E and is associated with a double circuit trestle tower. The 230 kilovolt (kV) line was built between 1952 and 1966 and is 19 miles long. The westernmost line on the site is the West Hurley-Tracy #1 230kV line that was built prior to 1952 and is 54 miles long. The other three transmission lines on the site are owned by USBR and are associated with the lattice waist type towers and the monopole type towers that run north to south through the central eastern part of the site. Of the three central eastern transmission lines, the transmission line directly east of the West Hurley-Tracy #1 line is an unnamed USBR transmission line associated with the monopoles on the site. The aforementioned unnamed transmission line is a nine-mile long 230kV line that was built between 1971 and 1981. The line to the east of the unnamed monopole type transmission line is the West Hurley-Tracy #2 230kV line that was built between 1952 and 1966 and is 55 miles long.



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 November 4, 2022, and indicated that known Native American cultural resources are not present within the site.

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 April 27, 2023. 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 a 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 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 archaeological 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, policies, and actions from the adopted 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 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 study area was completed at the NCIC on September 8, 2022. 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 study area. As previously discussed, according to records from the NCIC, the study area was subjected to previous cultural resources studies conducted in 1979 and 2003. Several additional investigations have been conducted within 0.5-mile of the site (see Table 4.4-1).

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, Archaeological 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 U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS).



**Table 4.4-1
Previous Studies Within and Near the Study Area**

Previous Studies within Study Area		
Author	Date	S#
Peak	1979	000418
Nelson and Carpenter	2003	009188
Previous Studies within 0.5-Mile of Study Area		
Johnson	1974	000088
Peak	1979	000420
Pacific Municipal Consultants	2003	005921
Pacific Municipal Consultants	2006	008020
Peak and Associates	1994	005924
Windmiller	2002	005925
McMorris	2003	008694
Todd, de Courcy, Lammers, and Lial	2012	011822
Kim, Scantlebury, Williams, Nayyar	2014	011838
Jordan and Nayyar	2016	012277
Nayyar	2019	012852
Curry and Grady	2019	012913
<i>Source: Natural Investigations Company, November 2022.</i>		

Field Survey

An intensive field survey of the site was completed by NIC on September 15, 2022. Surface examination consisted of transects spaced 15 meters (49.2 feet) or less apart. Ground visibility varied from poor (one to 25 percent) to excellent (75 to 100 percent), depending on the density of grass cover as the site had been recently grazed. 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 November 4, 2022, which were 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 April 27, 2023. 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, Lone 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 May 11, 2023, the Wilton Rancheria responded to the notification letter confirming that the site is located in the tribe's culturally affiliated territory. Thus, the tribe provided a copy of the Wilton Rancheria Mitigation Measures for Inadvertent Discoveries for projects in Elk Grove and requested a compensated



tribal monitor be on-site for all ground-disturbing activities. 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, 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, known historic resources have not been documented on the site. In addition, historic sites or artifacts were not identified during the field survey conducted as part of the Cultural Resources Investigation. Furthermore, while a well pad, wood pole, and dirt access road were identified on the site, NIC concluded that such resources are isolated features, and do not meet any of the criteria for identification as a historic resource or historic properties. Thus, according to the Cultural Resources Investigation, the well pad, wood pole, and two-track dirt access road are ineligible for inclusion on the CRHR or NRHP.

The transmission towers and lines on the site were recorded on appropriate site record forms and are included in Appendix B of the Cultural Resources Investigation. However, the transmission towers and lines are part of a much larger electrical distribution system that extend well beyond the current site boundaries. In addition, according to NIC, the transmission lines include a variety of features not identified on the site as well as additional towers that may differ in design from the transmission towers on the site. Consequently, due to the limited information regarding the four transmission lines and their associated features the potential eligibility of the towers and very short segments of the four transmission lines contained on 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 aforementioned towers and transmission lines, 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 contributing elements to the aforementioned transmission towers and lines.



Based on the above, development of the Project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.4-2 Cause a substantial adverse change in the significance of a unique archaeological 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, known archaeological resources have not been documented within the site. In addition, 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. Furthermore, the field survey conducted as part of the Cultural Resources Investigation did not detect unknown archaeological resources or human remains.

According to the Cultural Resources Investigation, due to the presence of Riverbank Formation and Redding gravelly loam, the on-site soils have a low to moderate sensitivity for the presence of buried deposits of cultural resources. In addition, Laguna Creek tributaries are located approximately 0.16-mile west of the site, across Waterman Road. 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. Thus, 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. In the event that on-site ground-disturbing activities encounter such resources during development of the Project, a substantial adverse effect could occur.

Based on the above, the Project could cause a substantial adverse change in the significance of a unique archaeological 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 measures 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 site 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 site, 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 shall retain a qualified paleontologist to evaluate the resource. 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 qualified paleontologist shall*



prepare a recovery plan immediately and in accordance with Society of Vertebrate Paleontology guidelines (SVP 2010). All grading and construction activities shall cease and further permits shall not be issued until the recovery plan is complete. 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. 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 would be required.

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. The Project contractor shall distribute the brochure to all construction personnel and supervisors who will have the potential to encounter cultural resources. Proof of compliance, in the form of a signed agreement stating understanding of the brochure, 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 region and/or site;
- 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 Archaeological 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) The following language shall be noted on Project improvement plans, subject to review and approval by the City of Elk Grove Development Services Department, and shall be implemented during Project construction:

The Project proponent shall give the Wilton Rancheria at least two (2) weeks notice prior to initiating ground-disturbing activities. The purpose of the notification will be to allow the Wilton Rancheria the opportunity to conduct monitoring. In the event that the Wilton Rancheria does not respond, or a tribal monitor does not report to the job site at the scheduled time, construction activities may proceed without monitoring as long as at no time, regardless of the presence or absence of a tribal monitor, shall suspected tribal cultural resources be mishandled or disrespected.



A contracted Tribal Monitor(s) shall monitor the vegetation grubbing, stripping, grading, trenching, and other ground-disturbing activities in the site. All ground-disturbing activities shall be subject to Tribal Monitoring unless otherwise determined unnecessary by the Wilton Rancheria.

The Tribal Monitor shall have the authority to temporarily pause ground disturbance within 100 feet of a discovery for a duration long enough to examine the resource. If no resources are identified, then construction activities shall proceed, and no agency notifications are required. In the event that a tribal cultural resource is identified, the Tribal Monitor shall flag off the discovery location and notify the City immediately to coordinate regarding appropriate and respectful treatment pursuant to State law.

The Tribal Monitor shall wear appropriate construction safety equipment including steel-toed boots, construction vest, and hard hat.

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*.

A search of the SLF conducted by the NAHC for Native American cultural resources within the study area 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 on April 27, 2023, to tribes who requested notification within the geographic area of the City, pursuant to AB 52 and SB 18. As discussed previously, the City consulted with the Wilton Rancheria, which recommended monitoring during ground-disturbing activities and requested the incorporation of the Wilton Rancheria's Mitigation Measures for Inadvertent Discoveries into the EIR. 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.

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 the site 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. Due to the location of the site, the site's proximity to the Laguna Creek, Wilton Rancheria's cultural knowledge of previous village sites, and the fact that the field has remained unused for several years, Wilton Rancheria identified that the site may have a higher sensitivity for encountering tribal cultural resources than previously anticipated. 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 would reduce the above potential impact to a *less-than-significant* level.

4.4-3 *Implement Mitigation Measures 4.4-2(a) through 4.4-2(e).*

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 archaeological 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 does 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 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. Information from this chapter is primarily drawn from a Geotechnical Engineering Report prepared by Wallace Kuhl & Associates Inc. (WKA) (Appendix F).¹ In addition, information was sourced from the City of Elk Grove General Plan² and the associated General Plan EIR.³

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

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 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.⁴ 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 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 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. Along with similar soil types, the San Joaquin soil series account 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

¹ Wallace Kuhl & Associates Inc. *Geotechnical Engineering Report Lynch Property WKA No. 5971.02*. May 19, 2004.

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.

⁴ City of Elk Grove. *General Plan Update Draft Environmental Impact Report*. [pg. 5.6-1]. February 2019.



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 through which the seismic waves move.

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 Geotechnical Engineering Report concluded that the site is not located within any known earthquake fault traces and is 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 Geotechnical Engineering Report, the site is located within Seismic Zone 3, which is an area that can expect to experience ground motion of low severity. However, according to the City of Elk Grove General Plan EIR, 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.

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.

⁵ City of Elk Grove. *General Plan Update Draft Environmental Impact Report*. [pg. 5.6-1,2]. February 2019.



**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 awoken. 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 27.6-acre site is located immediately northeast of the Waterman Road/Rancho Drive intersection, within the East Elk Grove Sub-Area of the Eastern Elk Grove Community Plan and adjacent to land owned by the Cosumnes Community Services District (CCSD), in the City of Elk Grove, California. The site consists of generally flat to sloping grassland with an elevation ranging from 50 to 65 feet amsl. Within the grassland are numerous depressions where pooling has occurred. Aboveground distribution power lines and utility poles, as well as barbed wire fencing, exist along Waterman Road, parallel to the site's western boundary. Three easements containing transmission towers, utility poles, and overhead power transmission lines are generally located within the eastern half of the site.

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, this section includes a description of known paleontological resources within the City.



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 nine miles east of the Sacramento River and approximately 1.3 miles north of Laguna Creek. According to the United States Department of Agriculture (USDA) Web Soil Survey Soil Map prepared for the Project (see Figure 4.5-1), the site is underlain by Redding gravelly loam and San Joaquin-Galt complex, which generally consist of alluvial fan deposits characterized by interbedded mixtures of alluvial loam, clay, and cemented alluvium.⁶

Subsurface Soil Conditions

As discussed above, the USDA Web Soil Survey determined that the primary type of soil underlying the site is Redding gravelly loam, which consists of gravelly loam down to 19 inches, clay from 19-22 inches, and cemented gravelly material from 22 to 35 inches below the soil surface. The remainder of the soils underlying the southeastern portion of the site are San Joaquin Galt complex which consist of silt loam down to 15 inches, clay loam from 15-20 inches, indurated (cemented) soils 20 to 46 inches, and stratified sandy loam to loam from 46 to 60 inches below the soil surface. Overall, surficial soil within the site are classified as gravelly loam and silt loam, which are derived from alluvium from igneous, metamorphic, and sedimentary rock.

Based on the Geotechnical Engineering Report, subsurface soil conditions on the site consist of brown to light brown, fine sandy, clayey silts underlain by discontinuous layers of silty clays and fine sandy silts. Beneath the surface soils the Geotechnical Engineering Report identified alternating layers of silty fine sands, clayey fine sands, and fine sand and clay silts. A discontinuous layer of fine sandy gravel was identified in two of the five borings performed on-site. The Geotechnical Engineering Report concluded that the upper eight to 12 inches across the site were disturbed due to previous uses.

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 25.5 miles to the west.⁷ 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.⁸ However, faults far from the Elk Grove 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 City.

⁶ United States Department of Agriculture. *Natural Resources Conservation Service Web Soil Survey*. Available at: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed April 2025.

⁷ Department of Conservation. *California Geological Survey Fault Activity Map of California*. Available at: <https://maps.conservation.ca.gov/cgs/fam/>. Accessed April 2025.

⁸ City of Elk Grove. *General Plan Update Draft Environmental Impact Report*. [pg. 5.6-9]. February 2019.



**Figure 4.5-1
Soil Map**



Source: USDA Natural Resources Conservation Service (NRCS). Web Soil Survey. May 2025.



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.

According to the Geotechnical Engineering Report, the site is underlain by interbedded dense, stiff, and partially cemented native soils, and ground water is indicated to be approximately 90 feet below ground surface (bgs). Therefore, the Geotechnical Engineering Report concluded that the potential for liquefaction at the site would be unlikely. In addition, the General Plan EIR states that the soils underlying the Elk Grove General Plan planning area, which includes the site, are relatively dense/stiff and the upper 50 feet of soil are above the depth of groundwater. The potential for other secondary hazards (i.e., ground lurching, differential settlement, or lateral spreading) occurring during or after seismic events in the City of Elk Grove General Plan planning area is also considered to be low due to the distance of active faults. As such, the potential for liquefaction would be low.

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, expansive clay soils are common in the area and the near-surface soil at the site is expected to consist of expansive clay soils. Though the laboratory test results of the soil excavation and borings conducted as part of the Geotechnical Engineering Report indicated the presence of silty clays with low expansion potential, WKA stated that the silty clay soils would be capable of developing minor expansion pressures on building foundations, interior floor slabs, and exterior work with varying soil moisture contents. In addition, WKA stated that soils in the region generally consist of clay soils possessing moderate to high expansion potentials, and such soils may be present on the site.

Groundwater

According to the Geotechnical Engineering Report, free ground water was not encountered during test borings performed at the site. In addition, WKA reviewed the California Department of Water Resources (DWR) website, which indicated that regional ground water beneath the site is generally located at an elevation of approximately 40 feet below mean sea level, or approximately 90 feet bgs.

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.

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. Pursuant to Section 16.04.010 of the EGMC, the City has adopted the 2022 CBSC as part of the EGMC except as specifically repealed or amended by ordinance of the City of Elk Grove.

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 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 rights-of-way, 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

This section describes the standards of significance and methodology used to analyze and determine the potential impacts of the Project 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:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - o Rupture of a known earthquake fault;
 - o Strong seismic ground shaking;
 - o Seismic-related ground failure, including liquefaction; and
 - o 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 any of the following impacts are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

- Have 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.

Method of Analysis

The analysis presented within this chapter is based primarily on the Geotechnical Engineering Report prepared for the Project by WKA. Information related to paleontological resources was sourced primarily from the City's General Plan and General Plan EIR.



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 site. The scope of the Geotechnical Engineering Report included the following:

- Site Reconnaissance;
- Review of historic USGS topographic maps and aerial photographs of the property;
- Subsurface exploration, including the drilling and sampling of four borings to a maximum depth of approximately 16.5 feet;
- Collection of bulk samples of near-surface soils;
- Laboratory testing of selected soil samples;
- Review of the Environmental Site Assessment (WKA No.5971.01, dated April 30, 2004) for the subject property; and
- Engineering Analyses.

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 and the site is not located within an Alquist-Priolo Earthquake Fault Zone. Therefore, the potential for fault rupture, damage from fault displacement, or fault movement directly below the site 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 is located within an area where shaking from earthquake generated ground motion waves should be considered likely.⁹

While lower-intensity earthquakes could potentially occur at the site, the design of Project structures would be required to adhere to the provisions of the CBSC, which would be ensured through the City's building permit process. 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.

⁹ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.6-9]. February 2019.



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 unlikely. As noted in the Geotechnical Engineering Report, due to the relatively low seismicity at the site, the potential for seismically induced damage to the proposed 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 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, 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 in the western portion of the site, 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.

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 addition, 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). 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 prior to the issuance of any site grading permits or improvement plans. 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.

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 yd³) 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 City finds that the Project would not adversely affect surrounding properties and public rights-of-way, 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 landslides, lateral spreading, subsidence/settlement, 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.¹⁰ In addition, the site is relatively level and flat with elevations ranging from 50 to 65 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 steep slopes or free faces such as excavations, channels, or open bodies of water. As discussed above, the site is relatively level, with elevations ranging from approximately 50 to 65 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. Subsidence or settlement of low-density soils is generally caused by either oxidation of organic material, desiccation and shrinkage, or both, following drainage of such soils. Subsidence takes place gradually, usually over a period of several years, and is a common consequence of liquefaction, due to the loss of soil stability as a result of liquefaction, the cause of which is discussed further below.¹¹ 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.

¹⁰ California Geological Survey. *Landslide Inventory Map*. Available at: <https://maps.conservation.ca.gov/cgs/lsi/app/>. Accessed April 2025.

¹¹ Applied Earth Sciences. *Liquefaction*. Available at: <https://aessoil.com/guide-to-soil-liquefaction/>. Accessed October 2025.



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 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.

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 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, expansive clay soils are common in the area and the near-surface soil at the site is expected to consist of expansive clay soils. Though the laboratory test results indicated the presence of silty clays with low expansion potential, WKA stated that the silty clay soils would be capable of developing minor expansion pressures on building foundations, interior floor slabs, and exterior work with varying soil moisture contents. WKA stated that soils in the region generally consist of clay soils possessing moderate to high expansion potentials, and such soils may be present on the site. 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 to reduce potential damage to the Project, such as proper moisture conditioning and compaction control during site grading of the site and designing foundations to resist differential soil movement. Without implementation of 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.

Conclusion

From a geotechnical standpoint, the site is preliminarily considered suitable for the proposed construction. Thus, the Project would not likely be subject to issues associated with landslides, lateral spreading, subsidence, liquefaction, or collapse. However, due to the potential for expansive soils to create substantial risks on-site, implementation of recommendations included in a final design-level geotechnical engineering report would be required in order to ensure adequate support of the proposed improvements. Because a final geotechnical engineering report has not yet been prepared, a **potentially significant** impact could occur.



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, 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 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 issuance 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 site 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 planning area, where the site is



located, are underlain by the Laguna Formation, which has been known to produce Pliocene fossils. Although the site does not contain any known paleontological resources or unique geologic features, given the undeveloped nature of the site, 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 *Implement Mitigation Measure 4.4-2(b).*

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 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 site. 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 (ESA) prepared for the Project by Pinnacle Environmental, Inc. (PEI) (see Appendix G of this EIR),² as well as the City of Elk Grove General Plan³ and associated EIR.⁴

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:

[...] waste that, because of the quantity, concentration, or physical, chemical, or infectious characteristics of the waste, may do either of the following:

- (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, carcinogenicity, acute toxicity, chronic

¹ Pursuant to the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (CBA), 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 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 of a Kalwani (Waterman) Property* APN: 127-0150-001, -002, and -009 Elk Grove, California 95628. June 10, 2024.

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.



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.⁵

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.

Site Conditions

As discussed in Chapter 3, Project Description, of this EIR, the approximately 27.6-acre site is located immediately northeast of the Waterman Road/Rancho Drive intersection in the City of Elk Grove, California. The site is undeveloped and generally consists of flat to gently sloping grassland with numerous depressions where pooling has occurred. Aboveground distribution power lines and utility poles, as well as barbed wire fencing, exist along Waterman Road, parallel to the site's western boundary. Three easements containing transmission towers, utility poles, and overhead power transmission lines are generally located within the eastern half of the site. During PEI's site visit, an inactive (capped) water well was identified on a concrete pad in the southern portion of the site. The concrete pad was surrounded by four bollards with a power pole located directly adjacent to the northwest.

Historic records dating back to as early as 1909 show the site has been structurally undeveloped land from at least 1909 through the present. As noted in the Phase I ESA, aerial photography shows that the southern portion of the property was used for agricultural dry farming in 1947, and overhead powerlines are shown traversing the property beginning in the 1950s. Residential tract development was observed on the western adjoining property in the early 1990s, with increasing residential tract development noted to the east in the late 1990s/early 2000s.

The potential hazards associated with the site and surrounding area identified in the Phase I ESA prepared for the site are described in further detail below.

Potential On-Site Recognized Environmental Conditions

Based on the Phase I ESA prepared for the Project, PEI determined that the site does not contain any readily discernable RECs such as aboveground storage tanks (ASTs), underground storage tanks (USTs), septic systems/cesspools, or polychlorinated biphenyl (PCB) containing

⁵ ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. 2013.



equipment. During the site reconnaissance PEI confirmed the presence of agricultural land uses and power line easements with electrical line towers, but did not identify HRECs, CRECs, or RECs associated with present or historical agricultural use, or with the operational power lines. In addition, an inactive (capped) water well was identified on a concrete pad in the southern portion of the site. However, the well was not determined to represent a REC. Furthermore, according to a Database Records Search conducted by PEI as part of the Phase I ESA, the site is not identified on any local, State, or federally published lists of sites that have had releases of hazardous substances.

Potential Nearby Recognized Environmental Conditions

A review of sites located near the site that are listed in the federal, state, and/or local databases of hazardous materials sites was completed as part of the Phase I ESA. The results of the review identified database listings are presented below.

Former Elk Grove Landfill

The former Elk Grove Landfill abuts the subject property to the northwest, across Waterman Road. According to information on the State Water Resources Control Board (SWRCB) Geotracker database, the Elk Grove Landfill operated from 1969 to 1978 as a municipal waste landfill. The landfill is currently owned and maintained by the Sacramento County Department of Waste Management and Recycling. In the past decade, the landfill has not had any violations issued by the local enforcement agency (LEA). The landfill is also under Waste Discharge Requirements Order No. R5-2013-0134 with the Central Valley Regional Water Quality Control Board (CVRWQCB) concerning groundwater protection. Groundwater data from a groundwater monitoring well (MW-13) closest to the subject property (approximately 300 feet west of the northwest corner) indicated volatile organic compounds (VOCs) at trace concentrations well below maximum contaminant levels (MCLs) in 2015. In addition, perfluoroalkyl and polyfluoroalkyl substances (PFAS) concentrations from that well (considered the “downgradient well” for the landfill) indicated “no concentrations exceed the Notification Levels (NLs), there does not appear to be any significant PFAS contamination present at Elk Grove Landfill.” In a telephone conversation with Mr. Todd Del Frate of CVRWQCB, he stated that the landfill has a methane gas collection system. However, the landfill does not generate enough methane to necessitate the use of a flare but rather uses granular activated carbon vessels as a scrubbing system. Based on the distance from the subject property, and the cross-gradient location with respect to the assumed hydrogeological gradient (westerly to northwesterly), the Phase I ESA concluded that the former Elk Grove Landfill has not significantly impacted the site.

Harcrow Property

The Harcrow Property is located at 9251 Elk Grove Boulevard, approximately 0.56-miles southwest of the site. According to the California Environmental Reporting System (CERS) database, the Harcrow Property is listed with CERS ID T0606700774 noted with the description “Leaking Underground Storage Tank Cleanup.” The Harcrow Property is identified on the Sacramento County, Cortese, and Historical Cortese databases due to the leaking underground storage tank (LUST) identification. The LUST database listing indicates a diesel release was discovered at the Harcrow Property in 1994. The release affected soil only, and the status is noted as “Completed – Case Closed” as of November 28, 1994. Based on the distance from the site, the media affected (soil only), the regulatory status (case closed as of November 28, 1994), and the cross-gradient location with respect to the assumed hydrogeological gradient (westerly to



northwesterly), the Phase I ESA concluded that the Harcrow Property has not significantly impacted the site.

Cresleigh Ranch No. 39

The Cresleigh Ranch No. 39 site is located at Elk Grove Boulevard and Foulks Ranch Drive, approximately 4.19 miles southwest of the site. According to the records search conducted by PEI, the ENVIROSTOR and state clearinghouse (SCH) databases list the Cresleigh Ranch No. 39 site as Facility ID 34010016, listed with “No Contaminants found.” The status of the Cresleigh Ranch No. 39 site is listed as “No Action Required” as of 2/27/2002. Based on the distance from the site, the media affected (soil only), the regulatory status (no action required as of 2/27/2002), and the cross- to downgradient location with respect to the assumed hydrogeological gradient (westerly to northwesterly), the Phase I ESA concluded that the Cresleigh Ranch No. 39 site has not significantly impacted 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 U.S. environmental Protection Agency (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.

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 lead-base paint (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

CalEPA and the 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 Regional Water Quality Control Board (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 CVRWQCB.

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 Environmental Management Department (EMD) is responsible for enforcing the State regulations on both the city and county level, governing hazardous waste generators, hazardous waste storage, USTs (including inspections, enforcement, and removals), and environmental health (including inspections and enforcement). Sacramento County's 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.

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. EMD reviews technical aspects of hazardous waste site cleanups, and oversees remediation of certain contaminated sites resulting from leaking underground storage tanks. 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 2021,⁶ 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 federal disaster assistance: specifically, the Federal Emergency Management Agency (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.

⁶ Sacramento County. *Sacramento County Multi-jurisdictional Local Hazard Mitigation Plan Update*. September 2021.



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, February 2019.

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	Radiant dose= 200 kJ/m ^{2(c)} Exposure time= 30 sec	All uses will be located such that the possibility of injury to an unprotected person due to shrapnel released by a reasonably foreseeable event ^(d) is less than $1/10^{-6}$ (1/1,000,000)
Residential (all density ranges) ^(e)	1.0 psig		Target radiant energy= radiant dose/exposure time Target radiant energy= (200 kJ/m ²)/30 sec Target radiant energy= 6.67 kW/m ²	
Office/ Commercial	1.0 psig	Dose= 3 ppm x 60 min= 180 ppm-min Target concentration= dose/exposure time Target concentration= (180 ppm-min)/60 min Target concentration= 3 ppm chlorine		
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 ERPG-2 = 3 ppm Dose= 3 ppm x 60 min = 180 ppm-min		

(Continues on next page)



**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
		Target concentration = dose/exposure time Target concentration= (180 ppm-min)/15 min Target concentration= 12 ppm chlorine		

Notes:

- psig: pounds per square inch gauge
- 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
- 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)
- As defined in Policy ER-1-2.
- Includes schools, parks, libraries, and other similar public gathering places regardless of their location.

Source: City of Elk Grove General Plan, February 2019.

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.

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:

- 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;



- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the Project area; and
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires.

Method of Analysis

Site conditions and impacts for this chapter are based primarily on the Phase I ESA prepared for the site. The goal of a Phase I ESA is to identify whether RECs exist at a property, where RECs are defined by the American Society for Testing and Materials (ASTM) as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. [...]” The Phase I ESA meets or exceeds the requirements of the ASTM “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-05.”

The Phase I ESA included a review of federal, State, and local environmental databases for information regarding documented and suspected releases of regulated materials within the site vicinity based upon reference to an environmental database search performed by EDR, an environmental database search firm. Additional historical use information regarding the site and surrounding properties was pulled from the following sources:

- Aerial photographs;
- Fire insurance (Sanborn) maps;
- Building department records;
- Chain-of-title documents;
- City directory abstracts; and
- Land use records.

Historical aerial photographs dating to 1947 were reviewed to provide a historical context of the site. In addition, a site reconnaissance of the site was conducted on June 27, 2023. The site reconnaissance consisted of walking the site and driving by nearby adjacent properties from public vantages to observe apparent uses. Photographs of the site were taken during the site reconnaissance.

Additional information within this chapter was sourced from the City of Elk Grove General Plan and the General Plan EIR. Determinations of significance are made in this chapter based on existing and potentially occurring hazards and hazardous materials within the site and surrounding area, and the potential impacts posed by such hazards to the public or the environment.



Project-Specific Impacts and Mitigation Measures

The site conditions 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. Operations of the Project, including the proposed 120 single-unit residences, 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),⁷ 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, 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.

⁷ 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.



Mitigation Measure(s)

None required.

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 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, the impact of the project on the environment – and not the impact of the environment on the project – 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 site vicinity, the discussion below focuses on the Project’s potential to exacerbate such risks.

As presented above, the Phase I ESA prepared for the Project determined that the site does not contain any readily discernable RECs, including, but not limited to, ASTs, USTs, septic systems/cesspools, or PCB containing equipment.

In addition, while the Phase I ESA identified the Former Elk Grove Landfill as a potential REC, in the past decade, the landfill has not had any violations issued by the LEA. The landfill is also under Waste Discharge Requirements Order No. R5-2013-0134 with the CVRWQCB concerning groundwater protection. Groundwater data from a groundwater monitoring well (MW-13) closest to the subject property indicated VOCs at trace concentrations, well below MCLs in 2015. In addition, PFAS concentrations from that well indicated “no concentrations exceed the NLs, there does not appear to be any significant PFAS contamination present at Elk Grove Landfill.” Furthermore, in a telephone conversation with Mr. Todd Del Frate of CVRWQCB, he stated that the landfill has a methane gas collection system, but the landfill does not generate enough methane to necessitate the use of a flare but rather uses granular activated carbon vessels as a scrubbing system. PEI determined that based on the distance from the site, and the cross-gradient location with respect to the assumed hydrogeological gradient (westerly to northwesterly), the former Elk Grove Landfill has not significantly impacted the site area. Furthermore, while the Phase I ESA identified the Harcrow Property and the Cresleigh Ranch No. 39 sites as being listed on Cortese databases, such listings were considered closed, and the Phase I ESA did not identify any RECs associated with such listings relevant to the site.

It should be noted that an inactive (capped) water well was identified on a concrete pad in the southern portion of the site during the site reconnaissance. The Phase I



ESA recommends that the water well be abandoned in accordance with current regulatory guidelines.

Based on the above, implementation of the Project 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. However, if the water well on-site is not abandoned in accordance with current regulatory guidelines, a **significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impacts to a *less-than-significant* level.

4.6-2 *Prior to commencement of construction activities, the Project applicant shall hire a licensed well contractor to obtain a well abandonment permit from Sacramento County Environmental Health Division (SCEHD) for the on-site water well, and properly abandon the on-site water well in accordance with Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III). Verification of abandonment shall be submitted for review and approval of the City of Elk Grove Community Development Department and SCEHD.*

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 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, Waterman Road provides access north to south along the western border of the site. The Project includes frontage improvements along Waterman Road to widen the roadway into a four-lane arterial road. Following Project buildout, access to the site would be provided by way of two newly constructed streets, which would extend eastward into the site from Waterman Road. In addition, Street B would be constructed within the site in a north-to south direction to connect to Street A to the north and Street C to the south, with the three streets combining to form a looped interior road system that would provide access to all proposed residences. Streets A, B, and C would each consist of a 44-foot-wide right-of-way (ROW).



Pursuant to the Design Exception to eliminate the 122-foot and 166-foot stubs at the terminus of Street A and Street C, fire apparatus turnaround would be addressed by the fire access gates provided between the end of each stub and the open-space multi-use trail. Fire equipment would be able to pull through and exit to the other stub street without the need to turn around. The Project would not alter the existing transportation network nor increase hazards due to a geometrical design feature. Furthermore, because the Project would be subject to review and approval by the City and CCSD Fire Department to ensure specific roadway design and access standards are met, potential hazards related to emergency access/vehicle circulation would not occur. Thus, 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 may be required; however, any temporary lane closures would be coordinated with County emergency services and complete closure of the roadway is not anticipated. As discussed in Chapter 4.11, Transportation, of this EIR, with implementation of Mitigation Measure 4.11-1, which would require the Project to prepare and implement a construction signing and traffic control plan, potential impacts to traffic flow related to construction activities would not occur.

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 multiple 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, 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 located outside of the immediate vicinity. 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 Drainage Study prepared for the Project by Wood Rodgers (see Appendix H),¹ as well as from the City of Elk Grove General Plan² and the associated General Plan EIR.³

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, the existing drainage patterns within the site, including peak flows, existing water quality, and groundwater conditions.

Regional Hydrology

The site is located within the Sacramento River watershed. 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. The closest water feature to the site is Laguna Creek, which is located approximately 0.23-mile west of the site.

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.

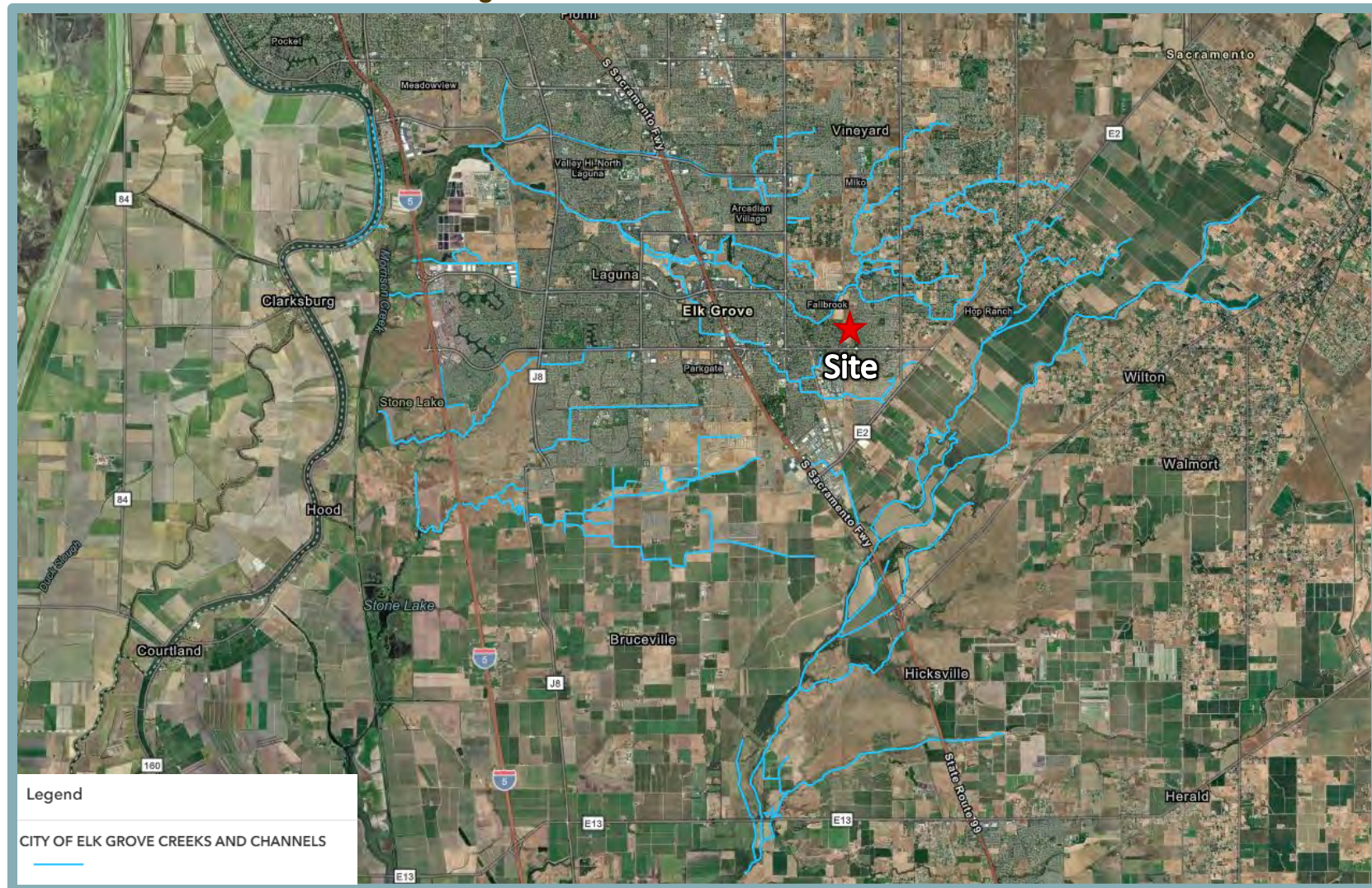
¹ Wood Rodgers. *Drainage Study for Summer Flats*. April 24, 2023. Revised March 5, 2024.

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.



**Figure 4.7-1
Regional Surface Water Resources**



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.

Site and Surrounding Area Drainage

The site currently consists of flat to gently sloping grassland, with slopes generally running from the northwest corner to the southeast corner of the site. On-site elevations range from approximately 50 feet to 65 feet. Within the grassland are numerous depressions where pooling has occurred. The Project on-site soil consists of Hydrologic Soil Group D soils, which have high runoff potential because water movement through the soil is restricted when thoroughly wet.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the site, the entirety of the site is located within Zone X, defined as an area of minimal flood hazard that is located outside of the 100-year floodplain (see Figure 4.7-2).⁴

With respect to existing drainage patterns, the on-site terrain and surrounding subcatchments are shown in Figure 4.7-3, while the pre-development pipeline modeling performed as part of the Project-specific Drainage Study is shown in Figure 4.7-4. As shown therein, the site generally drains from north to south towards East Park Drive to an existing 24-inch culvert that conveys the flows under the roadway to an existing detention basin located immediately south of East Park Drive. The existing detention basin drains south to a trunkline flowing west under Elk Grove Boulevard and then south under Waterman Road. From there, storm drain trunklines located under Waterman Road and Elk Grove Boulevard convey flows into three existing detention basins located south of the site, which collect flows from existing development in the area. The detention basins drain to an 84-inch pipe that drains west, ultimately discharging to a tributary of Elk Grove Creek just south of Russell Park.

The Project-specific Drainage Report also modeled the peak water surface elevations (WSEs) for the 100-year 24-hour storm based on pipe dimensions and peak flows (see Appendix A to the Drainage Study). The resulting maximum WSEs at key system locations under existing conditions are summarized below in Table 4.7-1.

Table 4.7-1		
100-Year Pre-Project WSEs at Key Locations (feet)		
Location Description	Node ID	Maximum WSE
Outfall pipe of North Existing Detention Basin	Node34	50.0
Elk Grove Boulevard and Waterman Road	N_WR_3	49.0
Waterman Road north of Kliever Way	N_WR_4	48.9

Source: Wood Rodgers, 2024.

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.

⁴ Federal Emergency Management Agency. *Flood Insurance Rate Map, Map Number 06067C0336H*. August 16, 2012.



**Figure 4.7-2
FEMA FIRM 06067C0336H**

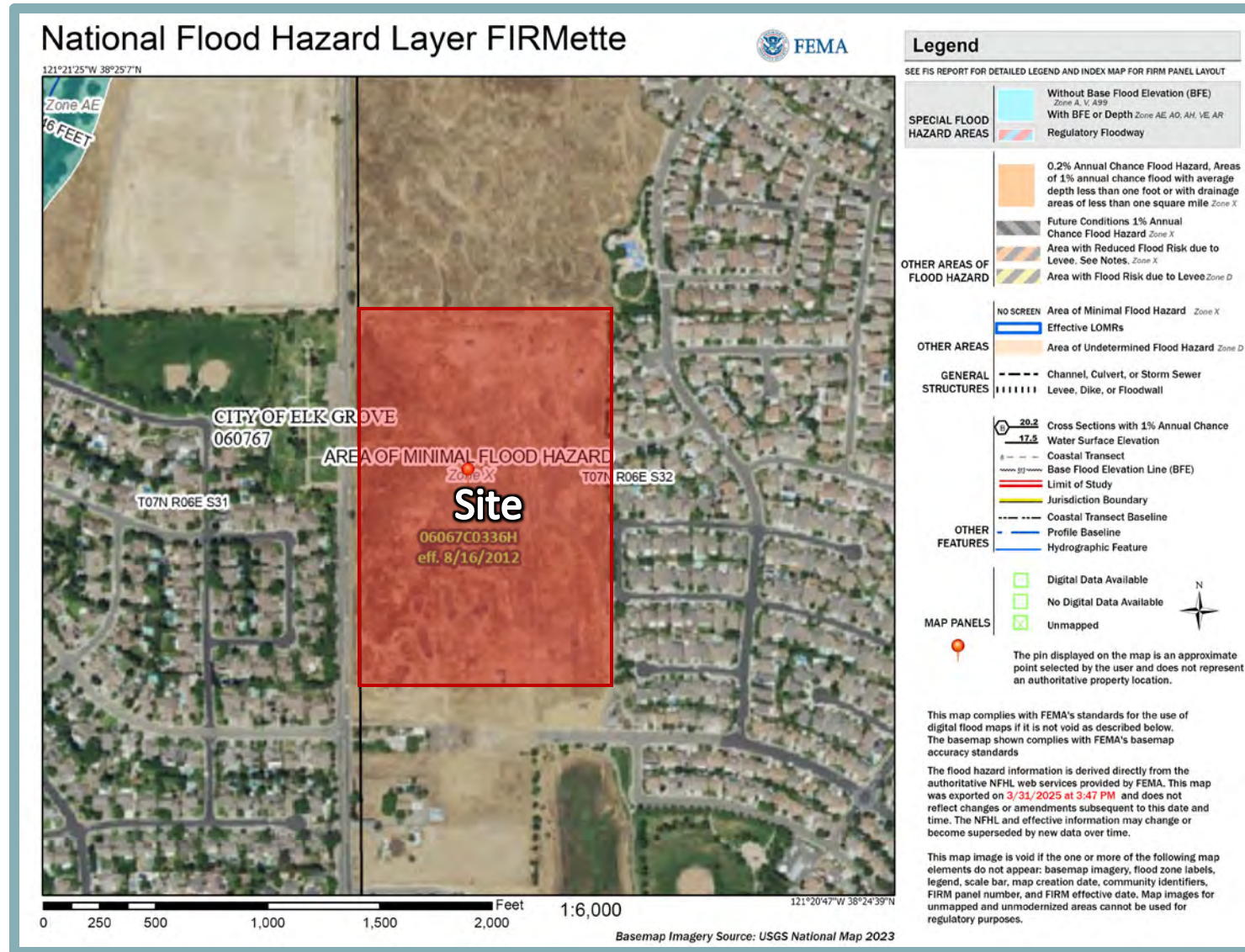
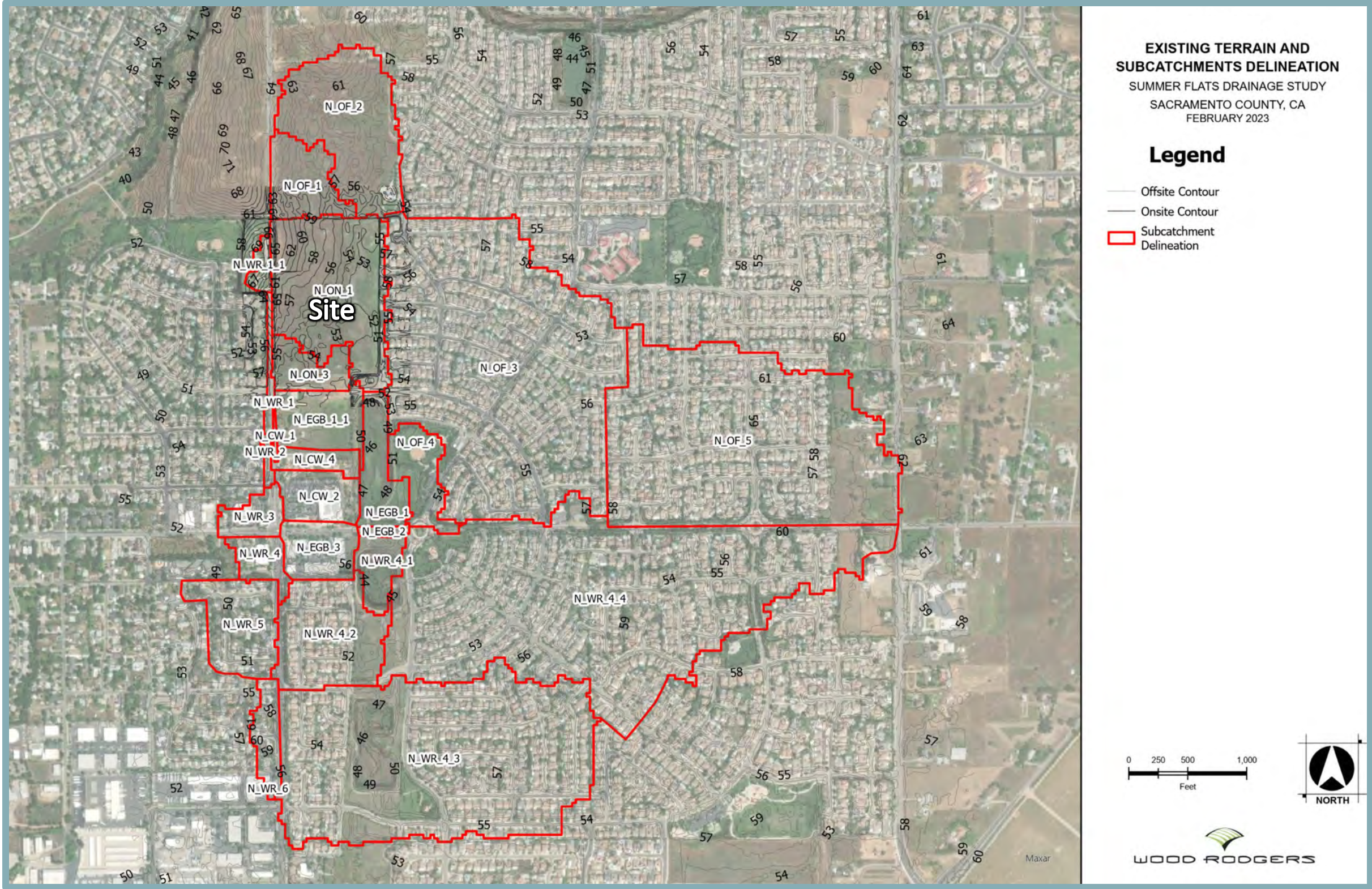


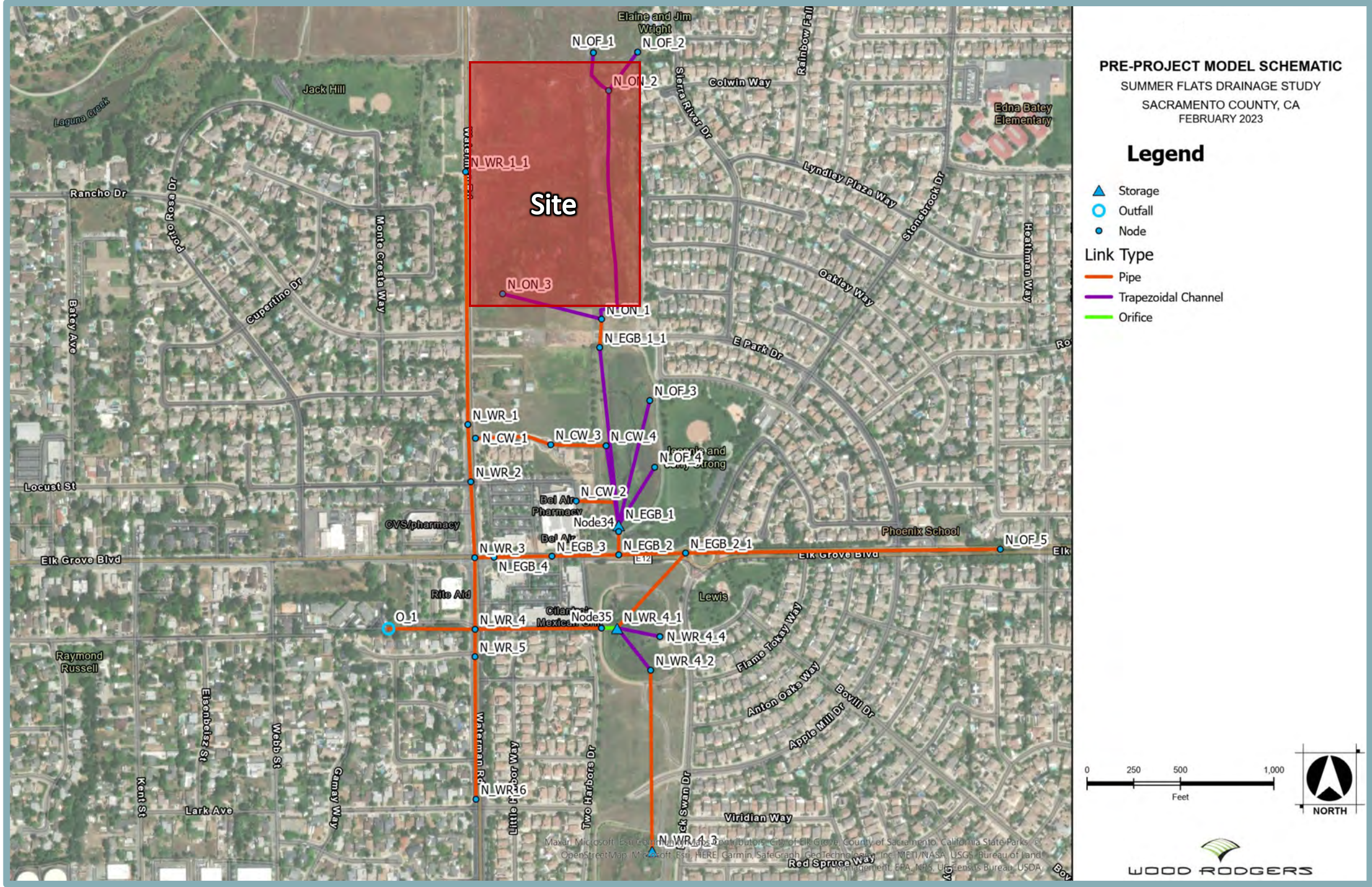
Figure 4.7-3
Existing Terrain and Subcatchments



Source: Wood Rodgers, 2024.



Figure 4.7-4
Pre-Project Model Schematic



Source: Wood Rodgers, 2024.



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.

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 area 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. The 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. 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.

⁵ North American Subbasin Groundwater Sustainability Agencies. *Water Year 2021 – Annual Report for the North American Subbasin*. March 2022.



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 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 Control Act and Water Quality

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 narrative and numerical 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 site.

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. However, pursuant to the FEMA FIRM for the area, the entirety of the site is located within Zone X, defined as an area of minimal flood hazard that is located outside of the designated 100-year floodplain. The proposed development footprint would not be located within an area with a potential flood depth above three feet. Thus, the Project would not meet criteria 2 or 4 and would not be subject to the requirements of SB 5.

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-3-2	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-3-8	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-2-2	Require that all new projects not result in new or increased flooding impacts on adjoining parcels or on upstream and downstream areas.
Policy ER-2-11	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-2-14	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-2-17	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, low impact development, 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 a project site 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 earthy material, 2. clear and grub one acre or greater of land within the City, or 3. construction of swimming pools, basements, structure footings, or underground utilities.

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 related to hydrology and water quality 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;

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.



- Substantially decrease 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:
 - o Result in substantial erosion or siltation on- or off-site;
 - o Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
 - o 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
 - o Impede or redirect flood flows; (see Chapter 5, Effects Not Found to be Significant, of this EIR)
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; (see Chapter 5, Effects Not Found to be Significant, of this EIR) or
- 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. Water supply availability is addressed in Chapter 4.10, Public Services and Utilities, of this EIR.

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

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and
- 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.

Method of Analysis

The impacts analysis herein is based primarily on the Drainage Study prepared for the Project by Wood Rodgers (see Appendix H).⁷ The Drainage Study included hydrologic modeling for the Project (both pre-Project and post-Project conditions) using the XP Stormwater Wastewater Management Model (XPSWMM), version 2021.1, using Sacramento County hydrology standards. The methodologies associated with pre- and post-Project conditions are discussed in further detail below.

Pre-Project Conditions

Two surveys were conducted by Wood Rodgers as part of the Drainage Study: an aerial survey was conducted on January 22, 2022, to gather on-site topographic data using Light Detection and Ranging (LiDAR) collection; and an off-site field survey was conducted on December 15, 2022, to gather measurements of storm drain infrastructure located south of the site. Record Drawings and survey data were combined to approximate existing storm drain locations and invert elevations in comparison with the December 2022 site survey.

⁷ Wood Rodgers. *Drainage Study for Summer Flats*. April 24, 2023. Revised March 5, 2024.



The Pre-Project drainage system was modeled using the 2021.1 version of the XP Stormwater and Wastewater Management Model (XPSWMM). The XPSWMM software models the effect of dual conveyance through conduits and over streets while accounting for storage and attenuation provided by existing detention basins. The Pre-Project hydraulics model was created to represent existing baseline conditions and includes the storm drain trunklines located under Waterman Road and Elk Grove Boulevard, as well as the fact that inflows would drain into the three detention basins located to the west of Black Swan Lane, to the south of Elk Grove Boulevard, and to the west of Jeanne and Jerry Strong Park, north of Elk Grove Boulevard. All detention basins ultimately drain through an 84-inch outfall pipe west of Waterman Road.

Subcatchment and longest flow path delineations were determined using geographic information systems (GIS) terrain processing tools based on both the U.S. Geological Survey (USGS) and the on-site LiDAR data. The longest flow path measurements were used to calculate the travel time component method to estimate lag time. Overland flow times were established using the standard XPSWMM residential overland flow time (nine minutes) or computed using the open space lag time equation. Where applicable, gutter flow time parameters and existing storm drainage pipe flow parameters (including length, slope, and pipe diameter) were estimated from aerial imagery and/or record drawings.

The GIS-delineated sheds were validated with Record Drawing information to confirm subcatchment delineation, and subcatchment hydrologic parameters were defined using land use and hydrologic soil group data. Precipitation input for defining the 100-year event was obtained from the Sacramento County Hydrology within XPSWMM.

Lateral inlets were combined to only model major inflows for off-site trunklines and detention basins, resulting in the model schematic seen in Figure 4.7-4. Off-site trunklines were modeled as multilinks in XPSWMM to represent pipe and street conveyance where nodes were surcharging and streetflow would occur. Existing road cross sections were input into the model as the “natural” section option to allow for irregular street geometry. Section geometry was estimated based on street width and typical urban street sections.

All modeling data used as part of the Project-specific Drainage Study is included as part of Appendix H to this EIR.

Post-Project Conditions

The post-Project scenario includes the proposed development, any amendments made to soils following Project construction, and detention basin. On-site subcatchment boundaries, parameters, and travel times were estimated to reflect the development and preliminary grading of the site under post-Project conditions. Runoff hydrographs for the post-Project subcatchments were calculated using the XPSWMM Sacramento County hydrology. In addition to providing lag estimates for assessing the attenuation that occurs within lumped urban watersheds, Sacramento County hydrology standards also allow for a storm frequency factor to be applied to account for street flooding when flows exceed pipe capacities. Once the lumped sheds reach the hydraulic network, further routing is handled under hydraulics.

Runoff hydrographs generated by XPSWMM Runoff nodes for each subcatchment were applied at the appropriate inlet location and then hydraulically routed through the site to optimize pipe sizing and detention basin volume. The conduit elements of the model were represented in schematic fashion and approximated using measurements from the current site layout relative to



the existing system. The on-site drainage system was assumed to adhere to City and County Standards related to inlet and manhole spacing, as well as WSEs in the proposed detention basin.

Because the Project would be required to provide LID measures in accordance with the current version of the SQDM, a residual stormwater treatment volume was calculated using the Sacramento County spreadsheet for Residential Sites Low Impact Development Credits and Treatment BMP Sizing Calculations. For modeling purposes, the water quality volume is present in the proposed detention basin as an initial depth before the 100-year storm event begins.

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 would include grading, excavation, trenching for utilities, and other construction-related activities that could cause soil 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 local waterways.

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; and
- Providing several dumpsters and trash cans throughout the construction site for litter/floatable management.
- 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 are currently unknown, the Project would likely include a combination of the BMP examples listed above. Final BMPs for Project construction would be chosen in consultation with the applicable California Stormwater Quality Association (CASQA) Stormwater BMP Handbooks, and implemented by the Project contractor.

In accordance with the Construction General Permit, the site would also be inspected during construction before and after storm events and every 24 hours during extended storm events 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 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. In addition, BMPs would be required to be designed in accordance with the CASQA Stormwater 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 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 area to single-unit residential uses and associated amenities, such as a multi-use path and landscaping. Such new land uses could result in new stormwater pollutants being introduced to the site. 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., car wash water, other 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 site 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

Impervious surfaces proposed as part of the Project include building roofs, driveways, and roadways. Runoff from the proposed residential development would be routed through on-site curbed and guttered streets to an underground storm drain system comprised of conduits 12 to 30 inches in diameter, which would drain by gravity into the proposed detention basin (see Figure 3-7 within Chapter 3, Project Description, of this EIR).

Basin sizing is discussed further under Impact 4.7-4 below. In general, the proposed detention basin 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). The Project would be required to include LID measures consistent with the current version of the SQDM for the



Sacramento Region. The proposed LID features would be sufficiently sized to meet the required storage volumes. As such, the Project-specific Drainage Report concluded that the Project's current stormwater drainage design conforms to current City of Elk Grove and Sacramento County design requirements. Stormwater quality treatment objectives, as required by Elk Grove under the SQDM, would be met through the detention basin and the proposed outlet. Thus, on-site runoff would be properly treated prior to discharge to the proposed 24-inch pipe that would cross under East Park Drive, and would not pollute downstream waterways.

Maintenance and Inspection

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 detention basin should be inspected monthly, and the basin 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 basin and from outlets. Without implementation of such measures, the basin could fail to prevent polluted runoff from entering downstream water bodies during Project operation.

Conclusion

Based on the above, the Project includes site design measures to ensure that stormwater runoff is properly treated prior to discharge. Thus, urban pollutants entering and potentially degrading local water quality would not be expected to occur as a result of the Project. However, because ongoing maintenance of the proposed detention basin cannot be ensured, 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 measures 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.

As discussed in Chapter 4.10, Public Services and Utilities, of this EIR, 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 City, 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.

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. The U.S. Soil Conservation Service (SCS) has classified soils into four hydrologic categories (A, B, C, and D) based on infiltration rates from prolonged wetting. Soil Type A has the highest infiltration rate and Type D has the lowest infiltration rate. According to the Drainage Study, the site consists of Type D soils, and the surrounding off-site areas are comprised of Type C and D soils. Because the site and surrounding areas have Type C or D soils, the site would not be considered located within an important groundwater recharge area. In addition, the proposed water quality/detention basin located in the southeast corner of the site would allow for some infiltration of stormwater runoff. Given the limited recharge potential of the portion of the site that would be developed with impervious surfaces and the proposed stormwater drainage system's continued opportunity for groundwater recharge, the Project would not interfere substantially with groundwater recharge.

Considering that the site is not considered an important groundwater recharge area 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, 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.

Increases to peak runoff flows or volumes resulting from alterations to the existing drainage pattern of the site have the potential to result in exceedance of existing or planned stormwater drainage systems or flooding on- or off-site. As discussed above, the proposed stormwater drainage system would consist of drain inlets within paved areas and new 12- to 24-inch drainage pipes within the site, as well as a new water quality/detention basin located in the southeast corner of the site. Figure 4.7-5 shows the on-site proposed conditions subcatchments, as well as any remnant/adjacent existing subcatchments that would drain to proposed infrastructure.

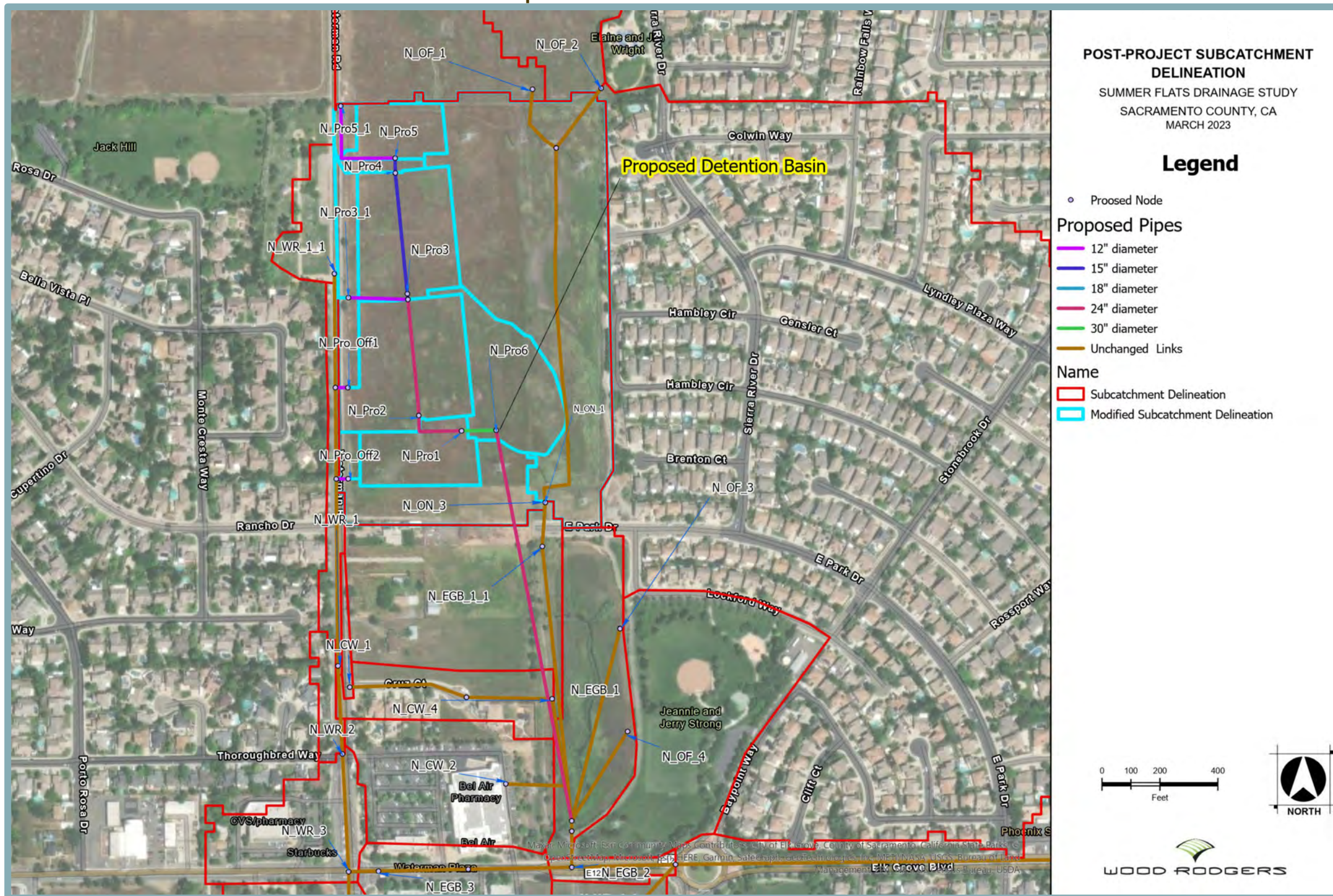
A new 24-inch drainpipe would be installed under East Park Drive to directly connect the proposed detention basin with the existing detention basin located to the south of the site. A new outlet structure would be installed where the new 24-inch pipe connects to the existing detention basin. A flap gate is also proposed to prevent backflow from the existing detention basin into the proposed detention basin in order to isolate storage and water quality features between developments.

According to the Drainage Study, the top-of-bank in the detention basin is at elevation 53 feet, with street and pad grades above 56 feet. The orifice/outlet structure for the proposed detention basin would include two outlets: one for smaller storm events and one for larger. Both orifices would ultimately discharge to the proposed 24-inch pipe that would cross under East Park Drive. The smaller outlet would be a six-inch orifice with the invert set at 47.3 feet at the bottom of the basin and, in conjunction with infiltration, would drain the detention basin within 48 hours. The larger outlet would be a 24-inch orifice set to the top of the water quality volume at 47.91 feet.

In order to ensure storm events larger than the 100-year 24-hour event would preferentially drain through the 24-inch connection, the top spill crest of the outlet/orifice would be set to 50 feet. Table 4.7-2 below summarizes the proposed detention basin characteristics.



**Figure 4.7-5
Proposed Subcatchment Delineation**



Source: Wood Rodgers, 2024.

Table 4.7-2 Proposed Detention Basin Characteristics	
Characteristic	Value
Bottom Area	26,000 square feet (sf)
Bench Area	28,000 sf
Top Area	74,000 sf
Invert Elevation	47.3 feet
Bench Elevation	48.5 feet
Top Elevation	53.0 feet
Total Contained Depth	5.7 feet
Side Slope	4:1
<i>Source: Wood Rodgers, 2024.</i>	

The peak flows expected at the detention basin are shown below in Table 4.7-3 in feet and cubic feet per second (cfs).

Table 4.7-3 Summary of Detention Basin Results			
Storm Event	Peak Stage at Basin (feet)	Peak Flow into Basin (cfs)	Peak Flow out of Basin (cfs)
100-year, 24-hour	49.4	28.4	7.6
<i>Source: Wood Rodgers, 2024.</i>			

As shown in the table above, the proposed detention basin is designed to provide adequate storage capacity and freeboard to store runoff for storm events up to and including the 100-year 24-hour event.

As discussed previously, runoff from impervious surfaces created as part of the Project would be routed to a new detention basin in the southwest portion of the site. The stormwater quality event outlet was sized to drain the water quality volume within 48 hours. According to the Drainage Report, 0.37 acre-feet (AF) of water quality volume would be stored within the basin, in combination with the 100-year flood detention volume. The detention basin would detain and treat runoff prior to discharging treated runoff to existing basins in the area, including the detention basins west of Black Swan Lane, to the south of Elk Grove Boulevard and west of Jeanne and Jerry Strong Park, and to the north of Elk Grove Boulevard. In addition to the proposed detention basin, the Project would incorporate LID controls to help reduce stormwater runoff. Such strategies are consistent with the SQDM for the Sacramento region. Overall, peak discharge from the site would not exceed existing conditions because the Project would include development of on-site detention capable of handling the on-site peak flow volumes.

In order to assess the changes in runoff volumes from the site that could occur due to the Project, Wood Rodgers calculated the pre- and post-construction 100-year WSEs at key locations surrounding the site. Pre- and post-construction WSEs at the identified key locations are presented in Table 4.7-4 below for the 100-year, 24-hour storm.



Table 4.7-4 Summary of Pre- and Post-Project 100-Year Water Surface Elevations at Key Locations (feet)			
Location Description	Node ID	Pre-Project Max WSE	Post-Project Max WSE
Outfall Pipe of North Existing Detention Basin	Node34	50.0	49.2
Elk Grove Boulevard and Waterman Road	N_WR_3	49.0	48.7
Waterman Road north of Kliever Way	N_WR_4	48.9	48.7
Source: Wood Rodgers, 2024.			

As shown in the table, the Project would result in a reduction in WSEs relative to existing conditions for the 100-year, 24-hour storm event. Therefore, the Project would be consistent with applicable hydromodification requirements, and would not increase the amount of runoff leaving the site during storm events. In addition, the outlet invert elevation from the detention basin would be above the 100-year WSE. Therefore, even during the 100-year flood event, the proposed basin could continue discharging, and on-site backflow flooding would not occur.

Therefore, the Project would result in a ***less-than-significant*** impact related to substantially altering the 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 flooding on- or off-site, contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff.

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. 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 City 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 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 City, 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 site 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 City would also be subject to Phase I MS4 stormwater requirements, as well as all City requirements related to stormwater treatment and control. Compliance with the foregoing regulations would ensure that impacts related to the alteration of drainage patterns, the discharge of pollutants, and flooding are minimized to the extent feasible.

Based on the proposed stormwater design, during operations, the stormwater runoff associated with the site would be properly treated prior to discharge from the site. 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, 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.

As discussed in Impacts 4.7-1 through 4.7-5 above, all identified Project-level impacts would be reduced to less-than-significant levels with implementation of the mitigation measures set forth herein. Overall, based on compliance with all appropriate regulations, cumulative development within the area in conjunction with the Project would not result in the violation of water quality standards or waste discharge requirements, nor impacts related to groundwater quality, management, and recharge, or substantially alter existing drainage patterns. Therefore, significant cumulative impacts related to hydrology and water quality would not occur and the cumulative impact would be considered ***less than significant***.

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 Eastern Elk Grove 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 City, 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 27.6-acre site is located immediately northeast of the Waterman Road/Rancho Drive intersection, within the East Elk Grove Sub-Area of the Eastern Elk Grove Community Plan, in the northeastern portion of the City. The site currently consists of flat to gently sloping grassland, with an elevation ranging from 50 to 65 feet above mean sea level (amsl). Within the grassland are numerous depressions where pooling has occurred. Aboveground distribution power lines and utility poles, as well as barbed wire fencing, exist along Waterman Road, parallel to the site's western boundary. Three easements containing transmission towers, utility poles, and overhead power transmission lines owned by Sacramento Municipal Utility District (SMUD), the U.S. Bureau of Reclamation (USBR), and Pacific Gas & Electric Co. (PG&E) are generally located within the

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.



eastern half of the site. A number of non-native trees are located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers.

Surrounding existing land uses include a single-unit residential neighborhood immediately to the east; scattered single-unit residences to the south, with a grocery store and smaller commercial businesses located further south along Elk Grove Boulevard; a single-unit residential neighborhood, the Hilltop Cemetery, and Jack E. Hill Park to the west, across Waterman Road; and vacant land to the north. The site is located within the East Elk Grove Sub-Area of the Eastern Elk Grove Community Plan of the City's General Plan, which is governed by a set of residential unit caps.

Land Use Designations and Zoning Districts

Both the Eastern Elk Grove Community Plan and the City of Elk Grove General Plan designate a portion of the western side of the site as Low Density Residential (LDR) and the remainder of the site is designated Resource Management and Conservation (RMC). Similarly, a portion of the western side of the site is zoned Low Density Residential – Maximum Four Dwelling Units per Acre (RD-4) and the remainder of the site is zoned Open Space (O). 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	Vacant Land	Parks and Open Space (P/OS)	O
East	Scattered Single-Unit Residences	LDR	Low Density Residential – Maximum Five Dwelling Units per Acre (RD-5) and Low Density Residential – Maximum Seven Dwelling Units per Acre (RD-7)
South	Single-Unit Residences, Park	LDR, RMC, and P/OS	RD-4, O, and Park and Recreation (PR)
West	Single-Unit Residences, Cemetery, Park	Estate Residential (ER) and Public Services (PS)	Very Low Density Residential – Maximum Three Dwelling Units per Acre (RD-3) and O

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.

Low Density Residential (LDR)

LDR uses are generally characterized by single-unit detached residential development. Lot sizes typically range from 6,000 to 10,000 square feet (sf). The LDR land use designation allows for a residential density between 4.1 dwelling units per acre (du/ac) to seven du/ac.

Resource Management and Conservation (RMC)

RMC uses consist of both public and private lands, including but not limited to lands used for habitat mitigation, wetland protection, and floodways. Lands designated as RMC are oriented



toward passive open space uses, rather than active uses, which are included in the P/OS designation.

Parks and Open Space (P/OS)

P/OS uses include public and private parks, public plazas, trails, paseos, and similar features that provide off-street connectivity, and similar spaces not included in the RMC designation. Lands designated as P/OS are oriented toward active uses, rather than passive open space uses, which are included in the RMC designation. This designation may also include commercial recreation facilities principally oriented toward outdoor use.

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 two acres. The ER land use designation allows for a residential density between 0.51 du/ac to four du/ac.

Public Services (PS)

PS uses include lands owned by the City of Elk Grove, the Elk Grove Unified School District or other public school districts, the Cosumnes Community Services District (with the exception of public parks), and other public agencies. The designation also includes other institutional uses such as higher education, private schools, cemeteries, or post offices. The designation does not include hospitals or churches, which are accommodated in the Employment Center and Residential designations, respectively. The PS land use designation allows for a maximum floor area ratio (FAR) of 2.0.

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).

Low Density Residential

The low density residential zoning district designations are applied to areas of the City intended to accommodate low density single-unit residential neighborhoods. Typical development includes detached (and in some cases attached) single-unit residences. Permitted uses in the RD districts include single- and two-unit residences, second units, and compatible neighborhood support facilities. Residential densities shall be in the range of 3.1 to seven du/ac. Property with the low-density residential designation should be located near other residential properties, schools, parks/open space, and neighborhood commercial services with low-impact office and light industrial uses nearby. Development standards for the RD districts allow design flexibility and promote a range of housing densities and variety of housing types.

The low-density residential designation includes the following specific zoning districts:

- **RD-4.** The RD-4 district is intended for detached single- and two-unit residences up to a maximum density of four du/ac. Development is typically one and two stories in height with larger yard areas.
- **RD-5.** The RD-5 district allows single- and two-unit residences up to a maximum density of five du/ac. The RD-5 district may include detached and attached housing types. Development is typically one and two stories in height with private yard areas.
- **RD-6.** The RD-6 district allows single- and two-unit residences up to a maximum density of six du/ac. The RD-6 district may include detached and attached housing types, as well



as cluster developments. Building heights in the RD-6 district are typically one and two stories. Development standards allow for a variety of housing types.

- RD-7. The RD-7 district allows single- and two-unit residences up to a maximum density of seven du/ac. The RD-7 district may include detached and attached housing types, as well as cluster developments. Building heights in the RD-7 district are typically one and two stories. Development standards allow for a variety of housing types.

Open Space (O)

The O zoning district is applied to lands owned by public and private entities that have been reserved for open space uses such as landscape corridors, habitat mitigation, wetlands, wildlife habitat and corridors, lakes, trails, and similar uses. Some quasi-public uses such as recreation centers, nature centers, public golf courses, and joint use facilities may be permitted with approval of a conditional use permit.

Park and Recreation (PR)

The PR zoning district is designated for existing and future park facilities, including local, neighborhood, and community parks; public golf courses; sports facilities and complexes; and other recreational facilities that serve the outdoor recreational needs of the community.

Very Low Density Residential

The very low density residential zoning district designations are applied to areas of the City intended to accommodate very low density single-unit residential uses in a semi-rural setting. Residential densities shall be in the range of one to three du/ac, with minimum lot sizes between one-third-acre to one acre. The very low-density residential zoning district designations include the following specific zoning districts:

- RD-1, RD-2, and RD-3. The RD districts are applied to areas of the City intended to accommodate very low-density single-unit estate type uses. Property with then RD designations should serve as a transitional residential district between agricultural residential and traditional lower-density single-unit residential neighborhoods. The zoning district number associated with the RD districts corresponds to the number of dwelling units permitted per acre of land. The RD districts allow a density range of one to three du/ac.

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 and Household 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 an Established Community, aligning with the City's existing General Plan land use designation for the site.⁵ Established Communities are defined as areas typically adjacent to, or surrounding, Center and Corridor Communities. Land uses in Established Communities are typically made up of existing low- to medium-density residential neighborhoods, office and industrial parks, or commercial strip centers. As of 2016, Established Communities within Elk Grove included approximately 52,320 housing units, and such communities are anticipated to grow to 63,000 housing units at 2040 under the MTP/SCS assumptions. Between 2016 and 2040, the MTP/SCS growth scenario for Established Communities within Elk Grove identified an increase from 52,320 to 59,230 housing units.⁶

In addition, the East Elk Grove Sub-Area has a total maximum buildout of 4,416 dwelling units with unit allocations designated to individual properties, as established under the East Elk Grove Specific Plan (since repealed). According to the General Plan, 669 units are allocated for future residential development in the East Elk Grove Sub-Area. As part of the 2019 General Plan Update and associated Zoning Consistency Program, the City amended the land use designation and rezoned 7.3 acres of the Project site to LDR and RD-4, assuming a total of 29 units for future development. The 29 units were included in the General Plan assumption of 669 units for future residential development.

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:		
• <i>California Department of Finance. Demographic Profile, Table 1, Census 2010. Released May 12, 2011.</i> • <i>California Department of Finance. Report E-5: Population and Housing Estimates for Cities Counties and the State, 2021-2024. Released May 1, 2024.</i>		

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.
- 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 area median income.
- 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 area median income.

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 area median income.

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 Project includes 120 market-rate units, which would contribute to the City's above-moderate income unit allocation. 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 ($\leq 50\%$ AMI)	2,661	32.2%
Low Income ($> 50\%$ AMI, $\leq 80\%$ AMI)	1,604	19.4%
Moderate Income ($> 80\%$ AMI, $\leq 120\%$ AMI)	1,186	14.4%
Above Moderate Income ($> 120\%$ AMI)	2,812	34.0%
Total	8,263	100.0%
<i>Source: Sacramento Area Council of Governments, 2020.</i>		

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

⁸ Sacramento Area Council of Governments. *SACOG Regional Housing Needs Plan Cycle 6 (2021-2029)*. Approved March 2020.



developed by councils of government. The State-mandated RHNA process (Government Code 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 4.8-6 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.

Eastern Elk Grove 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 General Plan 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 Eastern Elk Grove 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 23.16.120: General Plan Amendments

Pursuant to EGMC Section 23.16.120, the purpose of a General Plan amendment is to allow for modifications to the General Plan text (e.g., goals, policies, or implementation programs) or to change the General Plan land use designation on any parcel(s). Section 23.16.120 is consistent with Section 65358 of the California Government Code and applies to the original land use designation of property authorized by the Sacramento Local Agency Formation Commission (LAFCo) for annexation in the City boundaries.

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:

- 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 (see Chapter 5, Effects Not Found to be Significant, of this EIR).

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

- 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 City, or if the Project would displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

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 currently consists of flat to gently sloping grassland. Surrounding existing land uses include a single-unit residential neighborhood immediately to the



east; scattered single-unit residences to the south, with a grocery store and smaller commercial businesses located further south along Elk Grove Boulevard; a single-unit residential neighborhood, the Hilltop Cemetery, and Jack E. Hill Park to the west, across Waterman Road; and vacant land to the north. The Project would consist of a subdivided single-unit residential community, comprised of 120 residential lots, as well as new internal roadways and frontage improvements, associated utility improvements, 14.7 acres of open space, an open space trail and pedestrian paseo, and new landscaping.

In accordance with EGMC Section 23.16.120, the Project would require City approval of a General Plan Amendment and Community Plan Amendment to redesignate the site to Medium Density Residential (MDR) and RMC. Similarly, in accordance with EGMC Section 23.16.110, the Project would require City approval of a Rezone to modify the site's zoning from the RD-4 and O districts to the Medium Density Residential – Maximum 12 Dwelling Units per Acre (RD-12) and O districts. 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 Project would result in the development of single-unit residential dwellings consistent with the residential neighborhoods located immediately to the east and west of the site. In addition, the Project would not obstruct any existing or proposed transportation route that provides connectivity in the Eastern Elk Grove Community Plan area. The Project 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 Eastern Elk Grove 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 East Elk Grove Sub-Area of the Eastern Elk Grove Community Plan, in the northeastern portion of the City. Both the Eastern Elk Grove Community Plan and the City of Elk Grove General Plan designate the site as LDR and RMC, and the site is zoned RD-4 and O. As discussed above, the LDR land use designation allows for a residential density of between 4.1 to seven du/ac, and the RD-4 zoning district allows for a maximum density of four du/ac. Therefore, with a total proposed density of approximately 10.1 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 City approval of a General Plan Amendment and Community Plan Amendment to redesignate the site to MDR and RMC (see Figure 4.8-1). Similarly, in accordance with EGMC Section 23.16.110, the Project would require City approval of a Rezone to modify the site's zoning from the RD-4 and O districts to RD-12 and O districts (see Figure 4.8-2).

According to the City's General Plan, the MDR land use designation allows for a residential density between 7.1 du/ac to 15.0 du/ac. MDR uses are generally characterized by small-lot single-unit residential development (attached or detached), duplexes, townhomes, garden apartments, or apartments. Similarly, the RD-12 zoning district allows higher-density, single-unit attached and detached residences, and may include lower-density, multi-unit for-sale, and for-lease units with a maximum density of 12 du/ac. Property within the RD-12 district should be located near other residential sites, offices, commercial uses and services, or light industrial areas. Development is typically one and two stories in height (three stories in some cases) with greater lot coverage than the low-density single-unit residential districts. The proposed 120 single-unit residences would result in a residential density of approximately 10 du/ac within the proposed 11.9-acre residential portion of the site. The proposed residences would each be two stories, with a maximum height ranging from approximately 25 feet to 30 feet. Thus, the residential uses associated with the Project would be consistent with the proposed land use designation and zoning.

In addition, as discussed above, the RMC designation allows for passive open space uses, and the O zoning district is applied to lands owned by public and private entities that have been reserved for open space uses, such as landscape corridors, habitat mitigation, wetlands, wildlife habitat and corridors, lakes, trails, and similar uses. The Project would include a 14.7-acre open space lot, which would retain the existing transmission towers and overhead power lines and contain the proposed water quality/detention basin. The lot would include a meandering 12- to 20-foot-wide multi-use path that would primarily proceed in a north-to-south direction to the east of the proposed residences. The path would pivot towards the east along the southern site boundary and include a 12-foot-wide connection to an existing multi-use path to the east of the site. At the midpoint of the trail's north-to-south segment, the Project would include construction of an outlook structure.



Figure 4.8-1
Existing and Proposed General Plan Land Use Designations

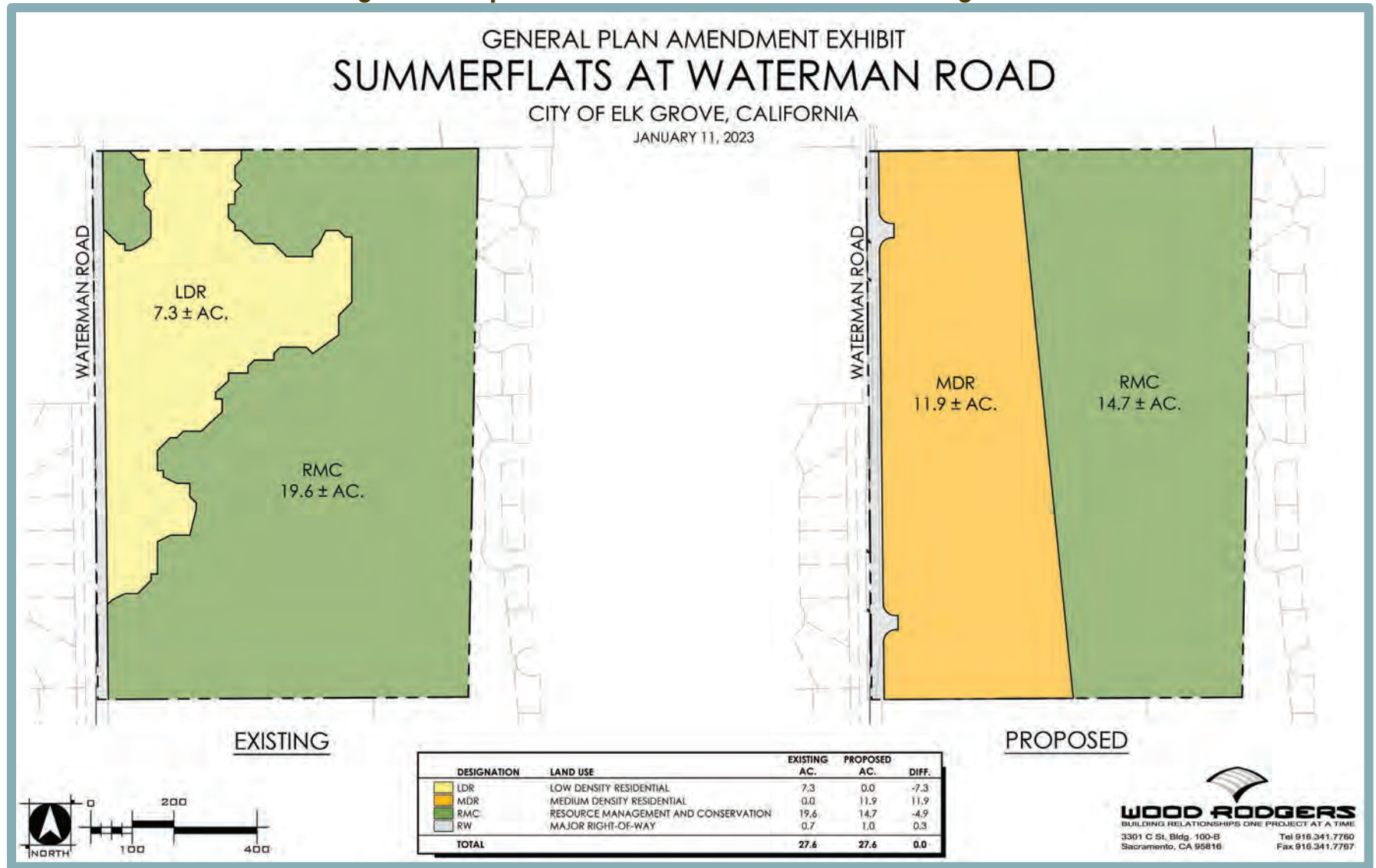
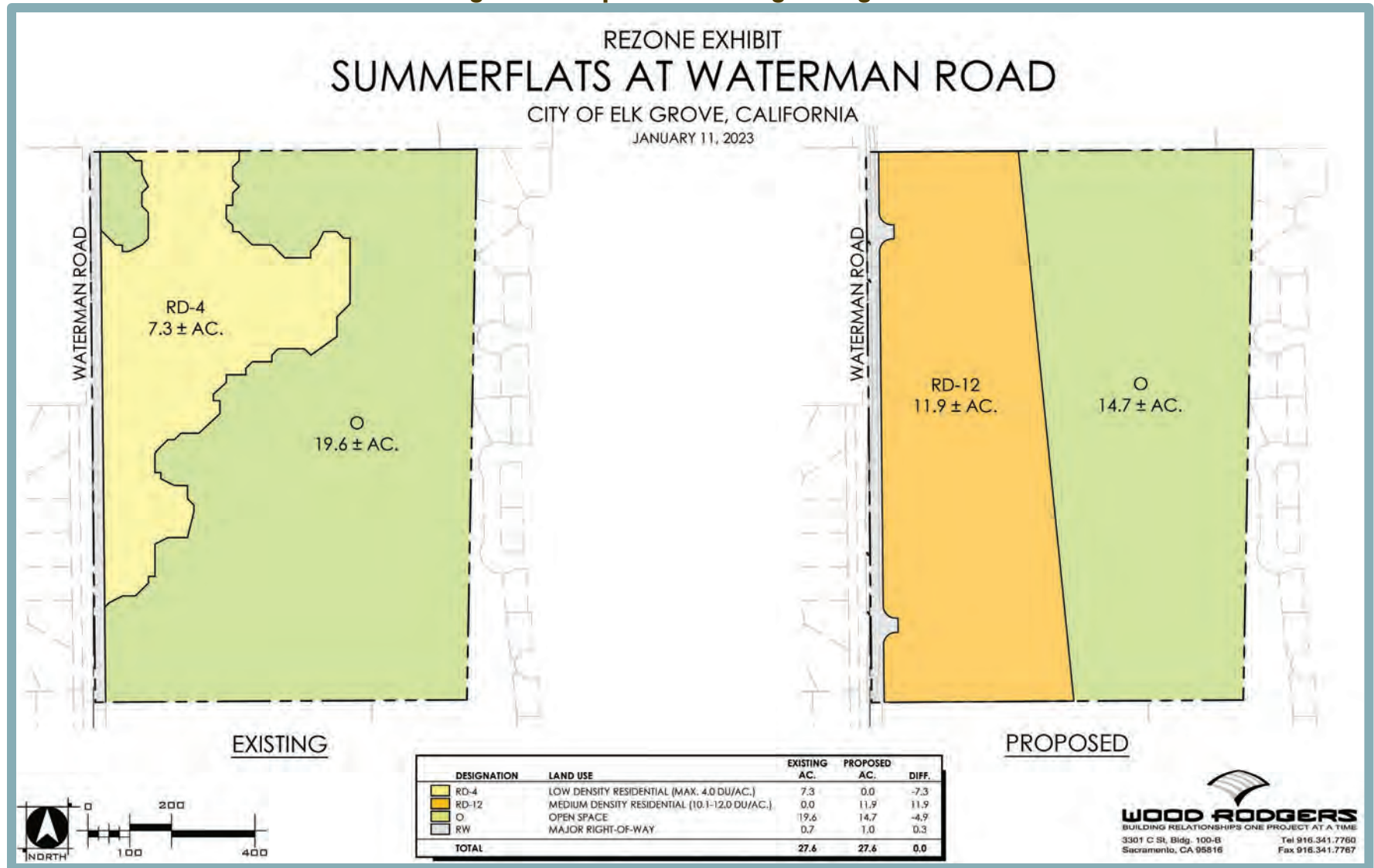


**Figure 4.8-2
Existing and Proposed Zoning Designations**



The open space lot would primarily be intended to provide for restoration, creation, and preservation of seasonal wetlands habitat and stormwater detention areas to serve the Project. Therefore, the proposed open space lot would generally be consistent with the proposed land use designation and zoning.

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, the Eastern Elk Grove Community 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 Eastern Elk Grove Community Plan area, the policies for the Community Plan area are intended to define residential communities, provide a complete circulation system, and ensure adequate public services. As such, the Community Plan policies are not adopted for the purpose of avoiding or mitigating an environmental effect. In addition, while the Community Plan includes Policy EEG-2-1, intended to preserve stream and creek corridors, such habitat types are not located on-site. Thus, Policy EEG-2-1 would not be directly applicable to the Project.

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 4.8-6), 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 less than significant.

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 120 single-unit residences would increase the available housing 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 (Table 4.8-3), the Project would house an estimated 371 new residents (3.09 persons/unit x 120 units).

The site is located within the Eastern Elk Grove Community Plan area of the General Plan and is designated by the General Plan as LDR and RMC. The 2020 MTP/SCS identifies the Eastern Elk Grove Community Plan as an Established Community, which are typically areas made up of existing low- to medium-density residential neighborhoods, office and industrial parks, or commercial centers. Therefore, the development of the site with urban uses has been previously anticipated.

As discussed above, the East Elk Grove Sub-Area has a total maximum buildout of 4,416 dwelling units with unit allocations designated to individual properties, as established under the East Elk Grove Specific Plan (since repealed). According to the



General Plan, 669 units are allowed for future residential development in the East Elk Grove Sub-Area. As part of the 2019 General Plan Update and associated Zoning Consistency Program, the City amended the land use designation and rezoned 7.3 acres of the Project site to LDR and RD-4, assuming a total of 29 units for future development. The 29 units were included in the General Plan assumption of 669 units for future residential development. The Project would result in the construction of 120 dwelling units. Therefore, the Project would require a General Plan Amendment and Community Plan Amendment to increase the maximum buildout for the East Elk Grove Sub-Area by 91 units, for a new total of 4,507.

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 According to the 2020 MTP/SCS, between 2016 and 2040, the Preferred Scenario growth for Established Communities within Elk Grove would be an increase from 52,320 to 59,230 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 Population¹
Existing	LDR, RMC	RD-4, O	29 units	90
Proposed	MDR, RMC	RD-12, O	120 units	371
Difference			91	281

¹ Calculated using the 3.09 persons/household average household size for the City.

Based on Table 4.8-5, the General Plan and Community Plan Amendments and Rezone associated with the Project would result in 91 additional residential units and 281 additional residents as compared to what could currently occur with buildout of the site pursuant to the existing land use and zoning designations. However, the 120 residential units associated with the Project would not exceed the anticipated housing unit growth from 2016 to 2040 in Established Communities, pursuant to the 2020 MTP/SCS. In addition, with approval of the proposed General Plan and Community Plan Amendments to increase the maximum buildout for the East Elk Grove Sub-Area by 91 units, for a new total of 4,507, the additional 120 residential units would be within the number of remaining allowed residential units within the East Elk Grove Sub-Area.

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 4.8-4 below.

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.



Indirect Population Growth

The Project could result in an on-site permanent population increase of approximately 371 residents. The new residential population would likely support local businesses and services in the area, fostering economic growth. While construction of the Project would temporarily 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. New jobs generated by the Project 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 additional population growth within the City of Elk Grove beyond what has been previously anticipated by the City.

Conclusion

Considering the above, the Project would include development that would result in direct on-site population growth. However, population growth resulting from the Project would be within the General Plan and SACOG growth estimates for the City. As a result, the Project would not be considered to induce substantial unplanned population growth, and a ***less-than-significant*** impact would result. It should be noted that potential impacts related to growth inducement are discussed further within Chapter 6, Statutorily Required Sections, of this EIR, consistent with Section 15126.2(d) of the CEQA Guidelines.

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.



4.8-4 Cumulative unplanned population growth. Based on the analysis below, the Project's incremental contribution to the significant cumulative impact is *less than cumulatively considerable*.

The buildout of the General Plan was anticipated to result in population growth through the buildout of urban and rural developments throughout the City, including the site. Since approval of the General Plan, several development projects have been completed, are underway, or approved within the City's planning area. As described further in Chapter 6, Statutorily Required Sections, of this EIR, some such developments within the project vicinity include the Elliott Springs Subdivision, Summer Park Estates, and the Pleasant Grove Estates Rezone and Subdivision Map. In addition, other reasonably foreseeable projects within the area are being processed by the City, including the Summer Villas Project, Summer Meadows Map and Rezone, and 9826 Bond Road Map. As such, population growth within the region due to buildout of the General Plan and the aforementioned development projects would be considered cumulatively significant.

The 2020 MTP/SCS, prepared by the SACOG, provides regional growth projections for the six-county Sacramento region, including the City of Elk Grove and Established Communities within the City. The MTP/SCS identifies the Eastern Elk Grove Community Plan as an Established Community. Development of the site with residential uses and the associated population growth related to such has been previously anticipated by the 2020 MTP/SCS. As discussed within Impact 4.8-3 above, although the Project would increase the number of units and population associated with buildout of the site from what has been anticipated by the City and the 2020 MTP/SCS, the increase is within the 2020 MTP/SCS projection total of 6,910 housing units within Established Communities between 2016 and 2040.¹² However, the Project would require a General Plan Amendment and Community Plan Amendment to increase the maximum buildout for the East Elk Grove Sub-Area by 91 units, for a new total of 4,507, in order to accommodate the 120 proposed units within the maximum allotted buildout of the East Elk Grove Sub-Area. Therefore, with approval of the proposed General Plan and Community Plan Amendments to increase the maximum buildout for the East Elk Grove Sub-Area, and because development of the site has been anticipated in regional development forecasts, buildout of the site would not result in a cumulatively considerable incremental contribution to population growth within the region.

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. As such, the cumulative analysis within each technical chapter of this EIR evaluates the physical environmental impacts of cumulative development.

¹² Sacramento Area Council of Governments. 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy [Appendix C, pg. 9]. Adopted November 18, 2019.



Considering the above, the Project's incremental contribution to impacts related to unplanned population growth within the region would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
<i>Land Use</i>		
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, the Project would be subject to the City's Design Review and Master Home Plan Design Review processes, which would ensure that future development would comply with all applicable standards. As established by EGMC Section 23.29.020, the purpose of the Design Review process is to promote the orderly and harmonious growth of the City; to encourage development in keeping with the desired character of the City; to ensure physical, visual, and functional compatibility between uses; and to help prevent the depreciation of land values by ensuring proper attention is given to site and architectural design. A Subdivision Design Review is required for any Tentative Subdivision Map. The Project also includes a Master Home Design Review for the approval of the Master Homes Plans. Therefore, the City would have an opportunity to review and require design standards to implement the Project, with which the Project would comply. As part of the requested rezone, the Project would be required to adhere to the adopted zoning and development standards and criteria for development proposals set forth by the City. With respect to building exteriors, the proposed residences would be composed of various materials, including composite shingles (roofs), board and batten siding, fiber cement lap siding, and stucco. In accordance with Chapter 3.2 of the City of Elk Grove Design Guidelines, a variety of exterior colors would be offered for the proposed residences, including blue, tan, and grey. All landscaping would be consistent with the requirements set forth by EGMC Section 23.54.040 and would be reviewed by the Elk Grove City Council prior to approval. When submitting final site plans for development, the plans would be subject to the City's Design Review process pursuant to EGMC Section 23.16.080. Design Review approval would ensure that the Project would comply with all applicable standards governing scenic quality. In addition, 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 addresses standards for lighting as part of new development, including requiring that lighting is constructed with shielding to reduce glare so that the source is not visible from within any adjoining residence. The chapter also establishes required levels of illumination for



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy	Project Consistency
	parking lots, driveways, pedestrian walkways, and other areas of new development, and requires limitations on light trespassing onto abutting properties. The proposed residences would be compatible with the existing surrounding residential uses. 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 be constructed in accordance with the electric vehicle ready standards included in Appendix A4 of the 2022 CALGreen Code, 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 greater than the State Model Water Efficient Landscape Ordinance (MWEL0). 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



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
		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.
Policy LU-5-3	Reduce the unsightly appearance of overhead and aboveground utilities by requiring the undergrounding of appropriate services within the urban areas of the City. Standard LU-5-3.a: New utility facilities should be located underground to the extent possible. Facilities to be placed underground should include electrical transformers (where consistent with the guidelines of the electrical utility), water backflow preventers, and similar items. Standard LU-5-3.b: Require that existing overhead utility facilities be undergrounded as a condition of project approval. This shall include electrical service lines under 69kV. Electrical service lines of 69kV and higher are encouraged to be undergrounded.	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 western boundary, to which the Project would connect, are greater than 69 kilovolts (kV) and would not be undergrounded, consistent with EGMC Section 23.63.020. The Project would not include development of new electrical service lines. 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.	Please see response to Policy LU-5-1 above. The proposed residences would be composed of various materials, including composite shingles (roofs), board and batten siding, fiber cement lap siding, and stucco. In accordance with Chapter 3.2 of the City of Elk Grove Design Guidelines, a variety of exterior colors would be offered for the proposed residences, including blue, tan, and grey. The Project would also be subject to maximum building height and minimum setback standards. Such architectural design would enhance and develop community character. In addition, the Project would be consistent with the residential neighborhoods located immediately to the east and west of the site.
Policy LU-5-9	Emphasize placemaking design principles in new development projects.	Please see response to Policies LU-5-1 and LU-5-4 above.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy	Project Consistency
<i>Mobility</i>	
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	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 Elk Grove travel demand model (EGSIM20), 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 threshold of significance (15 percent reduction from the updated existing conditions), and the Project would be subject to all feasible mitigation measures 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
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	



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy	Project Consistency
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.	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. The Project would expand the Waterman Road right-of-way (ROW) along the frontage of the property. Such frontage improvements would include a 32.5-foot-wide landscape corridor featuring a 10-foot-wide Class I multi-use path. The Project would also include a 12- to 20-foot-wide multi-use path in the eastern portion of the site that would connect to the existing north/south path along the west side of the East Park neighborhood. The Project would provide accessible and safe pedestrian connections between proposed buildings and adjacent streets. In addition, the Project would be subject to Mitigation Measure 4.11-4, which would require the Project to 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, or deposit a sum money to fund the Project's fair share portion of the costs of the aforementioned transit services and infrastructure improvements.
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,	Please see response to Policy MOB-1-2. 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-



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy	Project Consistency
including pedestrians, cyclists, motorists, children, seniors, and people with disabilities.	subdivision public ROW 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. Details on the types of intersection control at the proposed site entries are currently unknown. The Project access points shall 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 Bond 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.	Please see responses to Policies MOB-1-2 and MOB-3-1. As discussed under Impact 4.11-4 in Chapter 4.11, Transportation, and pursuant to Mitigation Measure 4.11-4, the Project would be required to form or contribute to a CFD to fund and implement carshare services, subsidized or discounted or free transit passes for Project residents, community-based travel planning and assistance, and necessary improvements to transit systems and stop amenities. Such strategies would 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.	Please see responses to Policies MOB-1-2 and MOB-3-1.
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.	Please see response to Policy MOB-3-1.
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.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
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 responses 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 responses 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. In addition, as discussed under Impact 4.11-2 in Chapter 4.11, Transportation, of this EIR, the Project would not conflict with the planned improvements included as part of the Bicycle, Pedestrian, and Trails Master Plan.
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 responses to Policies MOB-1-2 and MOB-3-2.
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.	Please see responses to Policies MOB-1-2 and MOB-3-2.



Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
<i>Historic and Cultural Resources</i>		
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 does not contain known historic or archeological resources. In addition, historic sites or artifacts were not identified during the field survey conducted as part of the Cultural Resources Investigation prepared for the Project. While transmission towers and lines were identified on-site and recorded in Appendix B of the Cultural resources Investigation, the potential CRHR, NRHP, and Elk Grove Register eligibility of the towers and very short segments of the four transmission lines contained on the site was not determined as part of the current Project due to limited information regarding such on-site features. 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 CRHR, NRHP and/or the Elk Grove Register as individual electric distribution systems or a contributing element to a system.
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. As discussed under Impact 4.4-2 in Chapter 4.4, Cultural and Tribal Cultural Resources, of this EIR, the potential for encountering previously unidentified buried archaeological resources or human remains within the site or associated infrastructure 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	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



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
	organizations and individuals to minimize potential impacts to cultural and tribal resources.	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 April 27, 2023. On May 11, 2023, the Wilton Rancheria responded to the notification letter, providing a copy of the Wilton Rancheria Mitigation Measures for Inadvertent Discovery for projects in Elk Grove and requested that a compensated tribal consultation monitor be on-site for all ground-disturbing activities. The foregoing recommendations are included as part of Mitigation Measures 4.4-2(a), 4.4-2(d), and 4.4-(e) of this EIR. The City did not receive responses from other contacted tribes.
Policy HR-2-3	Identify and evaluate local archaeological resources for inclusion in the National Register of Historic Places.	Please see responses to Policies HR-2-1 and HR-2-2.
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, 31 historic structures have been identified within 0.5-mile of the site. The Project 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 responses to Policies MOB-1-2 and MOB-4-4. 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 condition of approval for the proposed residential development. The Project would provide 14.7 acres of open space and associated trails, which would contribute to meeting the demand for recreation services created by future residents. As discussed under Impact 4.10-4 within Chapter 4.10, Public Services and Utilities, of this EIR, the Project would be required to provide a minimum of approximately 1.86 acres of parkland but 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. EGMC Section 22.28.50 states that the City may grant credit for private open space and/or local recreation



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
		facilities in planned unit developments 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.	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.	Although the Project does not include any designated parkland, the Project would include 14.7 acres of open space in the eastern portion of the site. As discussed further in Chapter 3, Project Description, of this EIR, the open space would include a multi-use path and pedestrian paseo. 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 would include a 14.7-acre open space lot, which would retain the existing transmission towers and overhead power lines and contain the proposed water quality/detention basin. In addition, the lot would include a meandering 12- to 20-foot-wide multi-use path that would primarily proceed in a north-to-south direction to the east of the proposed residences.
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.	The Project would include an open metal fence between the proposed residential area and the open space area. A 25-foot 4:1 slope landscaped buffer would be provided between the fence and the proposed path within the open space area. All landscaping would be consistent with the requirements set forth by EGMC Section 23.54.040. 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.	As discussed further in Chapter 3, Project Description, of this EIR, the provided open space would include a multi-use path and pedestrian paseo. The path would pivot towards the east along the southern site boundary and include a connection to an existing multi-use path to the east of the site. Please see response to Policy MOB-1-2.
Policy PT-1-13	Locate streets and other public infrastructure improvements so as to minimize intrusion on open space areas, particularly wetlands.	As discussed under Impact 4.3-10 within Chapter 4.3, Biological Resources, of this EIR, the Project may result in impacts to approximately 0.95-acre of vernal pool habitat. The Project would include 14.7 acres of open space, which would avoid the entire 1.71 acres of seasonal wetlands and seasonal wetland swales, as well as 0.07-acre of vernal pool. In addition, implementation of Mitigation



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
		Measures 4.3-10(a) and 4.3-10(b) would reduce impacts 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 PT-1-12 above.
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 in this EIR 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. Of the total amount, 0.95-acre of wetlands (vernal pool) would be impacted, while 0.15-acre of constructed aquatic features (detention basin and drainage and roadside ditches) would be impacted. The Project would avoid impacts to all of the seasonal wetlands and seasonal wetland swales in the study area (1.70 acres and 0.01-acre, respectively) and 0.07-acre of the total 1.01 acres of vernal pool. If the U.S. Army Corps of Engineers (USACE) or the Regional Water Quality Control Board (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, as required by Mitigation Measures 4.3-10(a) and 4.3-10(b).
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.	Please see response to Policy NR-1-2.
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	Please see Responses to Policies MOB-1-2, PT-1-1, and PT-1-10.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy	Project Consistency
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.	Natural stream corridors do not exist within the site. As discussed under Impact 4.7-4 in Chapter 4.7, Hydrology and Water Quality, of this EIR, runoff from impervious surfaces created as part of the Project would be routed to a new detention basin in the southwest portion of the site. The detention basin would detain and treat runoff prior to discharging treated runoff to existing basins in the area.
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.	The site is not located within the Rural Area, as designated by the City of Elk Grove. In order to preserve the natural features and open space resources within the site, the Project would cluster residences in the western portion of the site. The eastern portion of the site would be retained as an open space lot.
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.	As discussed under Impact 4.3-12 within Chapter 4.3, Biological Resources, of this EIR, trees protected under the City's Tree Preservation and Protection Ordinance (EGMC Chapter 19.12), which would include large native oak trees, other native tree species, and large non-native tree species that are an important part of the City's historic and aesthetic character, were not found on or overhanging the site.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
	• 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.	Please see response to Policy NR-2-1. A number of non-native trees are located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers. However, the trees are not protected under the City's Tree Preservation and Protection Ordinance.
Policy NR-2-4	Preserve and plant trees in appropriate densities and locations to maximize energy conservation and air quality benefits.	The proposed multi-use paths along the Project frontage and within the open space lot would be connected by a paseo, which would extend in an east-to-west direction between the two trails and would include new landscaping trees. Several lots located throughout the residential community would be planted with new landscaping trees. All landscaping would be consistent with the requirements set forth by EGMC Section 23.54.040, including shade requirements, which would reduce energy demand related to cooling and associated air quality and GHG emissions.
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. The Project may require the removal of two small non-native trees along the east shoulder of Waterman Road frontage, along the edge of the road ROW; however, the two trees do not qualify as any landmark tree, tree of local importance, or secured tree as defined by EGMC Chapter 19.12. Therefore, the two trees that could be removed from the site do not function as an important part of the City's or a neighborhood's aesthetic character or as natural habitat.
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 4.10, Public Services and Utilities, of this EIR, all landscaping would be required to comply with the State's MWELO, which requires the installation of climate adapted plants. Compliance with the State's MWELO would be ensured during the Design Review processes through submission of a landscaping plan to the City for review and approval. In addition, the Project would be subject to All landscaping would be consistent



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
		with the requirements set forth by EGMC Chapter 23.54, Landscaping, which includes shade requirements.
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, 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 downstream waterways. Thus, urban pollutants entering and potentially degrading local water quality would not be expected to occur as a result of the project. In addition, the Project would be subject to Mitigation Measure 4.7-2(b), which requires submittal of a maintenance covenant to the City Public Works Department for review and approval. The maintenance covenant shall be recorded with the property deed and executed following property ownership to ensure the long-term maintenance of stormwater quality measures.
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, development of the Project would result in a reduction in water surface elevations (WSEs) relative to existing conditions for the 100-year, 24-hour storm event. Therefore, the Project would be consistent with applicable hydromodification requirements and would not increase the rate or amount of runoff leaving the site during storm events. In addition, the outlet invert elevation from the detention basin would be above the 100-year WSE. 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.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
		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. 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.
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.	As discussed under Impact 4.7-2 within Chapter 4.7, Hydrology and Water Quality, of this EIR, the Project would be required to ensure that BMP and water quality maintenance plans shall meet the standards of the City's NPDES Permit (No. CAS0085324). 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.
Policy NR-3-8	Continue to eliminate water use inefficiencies and maintain ongoing communication with water suppliers to ensure sustainable supply.	Water 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 any existing facilities, 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 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.
Policy NR-3-10	Promote the use of greywater systems and recycled water for irrigation purposes.	Please see response to Policy LU-5-1 related to irrigation efficiencies. In addition, water supplied to the proposed project by Sacramento County Water Agency (SCWA) would include a combination of surface water, groundwater, recycled water, and purchased water. Furthermore, the proposed project would be subject to the requirements of EGMC Chapter 14.10, which requires compliance with State requirements for irrigation efficiency, recycled water, and graywater systems.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
Policy NR-3-13	Advocate for native and/or drought-tolerant landscaping in public and private projects.	Pursuant to Chapter 14.10 of the EGMC, all landscaping would be required to comply with standards equal to or greater than the State's MWELO. As noted in Chapter 4.10, Public Services and Utilities, of this EIR, all landscaping would be consistent with the requirements set forth by EGMC Section 23.54.040. In addition, the proposed landscaping would allow for the reduction of turf throughout the proposed park areas, which would limit the amount of irrigation water needed within the site.
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, the City has elected to use the Sacramento Metropolitan Air Quality Management District (SMAQMD) thresholds of significance for the analysis within this EIR. All potential impacts related to air quality, such as criteria pollutants, toxic air contaminants (TAC) emissions, and odors would be less than significant. Therefore, the Project does not have the potential to cause substantial impacts related to air quality.
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.
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 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. As part of the permitting process for the Project, the City would require compliance with SMAQMD regulations. 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 or components that would be considered air pollution point sources. In addition, industrial, manufacturing, or processing facilities are not located in the vicinity of the site.



Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy		Project Consistency
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, the application for the Project was routed for review by SMAQMD as part of the City's standard project review process, and SMAQMD will have the opportunity to review this EIR and provide comments as part of the CEQA public review process.
Policy NR-4-13	Minimize the exposure of sensitive land uses to objectionable odors.	As discussed under Impact 4.2-4 within Chapter 4.2, Air Quality, GHG Emissions, and Energy, of this EIR, the Project would not result in any noticeable objectionable odors associated with construction. In addition, although not anticipated, if odor or air quality complaints are made upon development of the Project, SMAQMD would be required (pursuant to SMAQMD Rule 402) to ensure that such complaints are addressed and mitigated, as necessary. Project compliance with SMAQMD Rule 402 would be ensured through conditions of approval for the Project.
Policy NR-5-1	By 2030, reduce per capita emissions greenhouse gas emissions to 4.1 MTCO ₂ e. By 2050, reduce per capita greenhouse gas emissions 1.4 MTCO ₂ e to meet the State's 2050 greenhouse gas emissions reduction goals.	Table 4.2-12 within Chapter 4.2, Air Quality, GHG Emissions, and Energy, of this EIR, presents a discussion regarding the Project's consistency with the City's adopted Climate Action Plan (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. The Project would comply with a majority of the CAP measures; however, the Project would not comply with Measure TACM-6 related to VMT, and the Project would be subject to Mitigation Measure 4.2-7(c). With implementation of mitigation, the Project's GHG emissions would be reduced from 1,196 metric tons of CO₂ equivalents (MTCO₂e) to 1,016 MTCO₂e, which equates to 2.73 MTCO₂e per capita per year. GHG emissions of 2.73 MTCO₂e per capita per year would be below the CAP's 2030 per capita goal. However, the Project would be above the CAP's 2050 1.4 MTCO₂e per capita goal. In addition, due to uncertainties regarding Mitigation Measure 4.2-7(c), the Project would still not comply with the aforementioned CAP Measures, and impacts related to GHG emissions would remain cumulatively considerable and significant and unavoidable.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
		It should also be noted that the City of Elk Grove is in the process of updating their CAP through preparation of a new Climate Compass, which is anticipated to be considered by City Council for adoption in spring 2026. The Project would be required to comply with the CAP in effect at the time of permit application. Similar to the current CAP, the Climate Compass provides emissions per capita targets for 2030 and 2050. The City is targeting 2.8 MTCO ₂ e for the year 2030 and 0.5 MTCO ₂ e for the year 2050 within the Climate Compass. Similar to the above, with implementation of mitigation, the Project's GHG emissions would be below the 2030 per capita goal established by the Climate Compass. However, the Project would be above the 2050 per capita goal established by the Climate Compass.
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.	Please see responses to Policies NR-4-1 and NR-5-1.
Policy NR-6-1	Promote energy efficiency and conservation strategies to help residents and businesses save money and conserve valuable resources.	As discussed under Impact 4.2-5 within Chapter 4.2, Air Quality, GHG Emissions, and Energy, of this EIR, 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.
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.
Policy NR-6-7	Encourage the use of solar energy systems in homes, commercial businesses, and City facilities as a form of renewable energy.	The 2022 CBSC requires that new residential structures be built with rooftop solar. The Project would be required to include rooftop solar PV panels. The City will ensure compliance prior to the issuance of any grading or building permits through implementation of Mitigation Measure 4.2-7(b).
Policy SD-2-2	Support innovation and green building best management practices for all new private development.	As discussed under Impact 4.2-7 within Chapter 4.2, Air Quality, GHG Emissions, and Energy, of this EIR, 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.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy	Project Consistency
	Additionally, implementation of 4.2-7(b) would ensure compliance with the applicable CAP Measures. Such measures would ensure that the Project implements green building best management practices to the maximum extent feasible.
<i>Disaster and Emergency Risk Reduction</i>	
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.	The site is not anticipated to be located in the vicinity of any facilities with the potential to create hazardous physical effects. Operations of the Project, including the proposed 120 single-unit residences, 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. Therefore, development of the Project with residential uses would not be anticipated to result in hazards to the public and/or nearby properties, and the potential hazardous physical effects of an event associated with the Project is not reasonably foreseeable as defined in Policy ER-1-2. In addition, 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. While three database listings were identified in the vicinity of the site, the Phase I ESA concluded that such sites have not significantly impacted the site. As such, the proposed residential uses would not be located in the vicinity of sites posing environmental health risks. In addition, the Project would be subject to Mitigation Measure 4.6-2 related to abandonment of on-site existing wells. Furthermore, please see response to Policy NR-4-1. Because potential impacts related to TAC were determined to be less than significant, health risks related to air quality emissions are not anticipated.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
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 level of risk standards may be considered by the City when supported by substantial evidence.	Please see response to Policy ER-1-1.
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.
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, the proposed detention basin is designed to provide adequate storage capacity and freeboard to store runoff for storm events up to and including the 100-year 24-hour event. Therefore, flooding impacts up- or downstream are not anticipated to occur.
Policy ER-2-11	Vehicular access to the buildable area of all parcels must be at or above the 10-year flood elevation.	According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the site, the entirety of the site (including site access areas) is located within Zone X, defined as an area of minimal flood hazard that is located outside of the 100-year 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	Please see responses to Policies ER-2-11 and ER-2-2 above. The Project would not include crossings over creeks or inundated areas.



Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy	Project Consistency
areas, subject to applicable local, State, and federal regulations.	
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, the Project would not create parcels that could not be developed due to access or preservation easements. The Project would include a 14.7-acre open space lot, which would retain the existing transmission towers and overhead power lines and contain the proposed water quality/detention basin.
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 responses to Policies ER-2-2 and ER-2-11.
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.
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.	Impacts related to geologic and/or soil conditions are addressed in Chapter 4.5, Geology and Soils, of this EIR. As discussed therein, all impacts related to geology and soils were determined to be less than significant, with the exception of impacts related to the potential for expansive soils. However, the Project would be subject to Mitigation Measure 4.5-3, which requires preparation of a final design-level geotechnical engineering report to ensure the geological and soil conditions on the site 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.	Please see responses to Policies LU-5-1 and NR-3-10.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
Provide opportunity for and encourage public reporting of violations.		
<i>Disaster and Emergency Response and Public Safety</i>		
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 would be designed to include landscaping and maintenance throughout to prevent unauthorized access.
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 site would be provided from two entries at Waterman Road, which would serve as primary emergency access routes. As discussed therein, 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.
<i>Urban Infrastructure</i>		
Policy INF-1-1	Water supply and delivery systems shall be available in time to meet the demand created by new development.	Infrastructure improvements required to serve the proposed development would be constructed prior to occupancy of the proposed residential units. The Project would connect to existing 16- and 10-inch water lines within Waterman Road. The proposed connection would occur by way of a new 16-inch water line within Waterman Road west of the site, which would connect to the interior of the site by way of a series of new eight-inch lines extending throughout the proposed on-site roadways. Installation of the new water supply infrastructure would occur 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, as discussed in detail under Impact 4.10-6 within Chapter 4.10, Public Services and Utilities, of this EIR, the existing water supply infrastructure would be sufficiently sized to accommodate the increased demand from the Project, and the Project would not require the construction of



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
		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.	Infrastructure improvements required to serve the proposed development would be constructed prior to occupancy of the proposed residential units. The Project would connect to existing sewer lines within Waterman Road. The proposed connection would occur by way of a new eight-inch sewer line within Waterman Road, which would receive wastewater generated by the Project from a series of new eight-inch lines extending throughout the proposed on-site roadways. 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. 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. Overall, as discussed under Impact 4.10-6 within Chapter 4.10, Public Services and Utilities, of this EIR, the existing wastewater conveyance infrastructure would be sufficiently sized to accommodate the increased demand from the Project, and the Project would not require the construction of new or expanded wastewater conveyance infrastructure beyond the improvements required to provide service.
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 for projects permitted after 2017. As such,



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
		approximately 428 tons of waste would 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 ROWs or in areas proposed for disturbance as part of the Project. The Project has been designed to avoid the majority of the on-site sensitive habitats, such as wetlands.
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. 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 development fees and the school district's collected Mello-Roos tax, and park dedication in-lieu fees pursuant to EGMC Section 22.28.040. Additional funding contributions would be collected through the Project's 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 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	Please see responses to Policy INF-1-1 and Policy INF-2-1 above.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy		Project Consistency
shortages, traffic congestion, or other negative effects on safety and quality of life.		
<i>Community Health</i>		
Policy HTH-1-1	Consider proximity to environmental health risks when planning for residential uses.	Please see response to Policy ER-1-1.
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.
<i>Noise</i>		
Policy N-1-1	New development of the uses listed in Table 8-3 of the 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 existing 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}) at the proposed residences directly adjacent to Waterman 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 Waterman Road, the City shall require as part of the Project that the residences adjacent to Waterman Road shall be shielded from the road through the construction of an eight-foot-tall noise barrier, subject to review and approval by the City Engineer. The noise barrier may be constructed of a combination of earthen berm and masonry wall to achieve the required wall height. Other types of barriers may be employed, but shall be reviewed prior to construction by an acoustical engineer to ensure the alternative noise barriers would adequately reduce traffic noise below the City's noise level standard.
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	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.



**Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion**

Policy	Project Consistency
barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures, including the use of distance from noise sources, have been integrated into the project.	
Policy N-1-4 Protect noise-sensitive land uses, identified in Table 8-3, from noise impacts.	Please see the response to Policy N-1-1.
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 responses to Policies N-1-1 and 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 Policies 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	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



Table 4.8-6
City of Elk Grove General Plan Policy Consistency Discussion

Policy	Project Consistency
nearby sensitive uses and to minimize impacts on those uses.	ambient noise level in excess of the California Department of Transportation (Caltrans) increase criteria of 12 dBA. 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, as well as additional noise attenuation measures.
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 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 typical construction activities.
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 • 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	As discussed under Impacts 4.9-2 and 4.9-4 in Chapter 4.9, Noise, of this 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 0.3 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 responses 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
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 Policies 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 Policies 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 (Saxelby) (see Appendix I of this EIR),¹ as well as from the City of Elk Grove General Plan² 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 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 Flats at Waterman Road*. May 27, 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 weighting 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 (3 feet)	90	N/A
Diesel Truck at 15 meters (50 feet), at 80 km/hr (50 mph)	80	Food Blender at 1 meter (3 feet) Garbage Disposal at 1 meter (3 feet)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 meters (100 feet)	70	Vacuum Cleaner at 3 meters (10 feet)
Commercial Area Heavy Traffic at 90 meters (300 feet)	60	Normal Speech at 1 meter (3 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, 2024.

Stationary sources of noise, including construction equipment, attenuate at a rate of approximately six 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 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 the residential uses to the east, west (across Waterman Road), and south of the site.

Existing Ambient Noise Environment

The existing ambient noise environment in the Project vicinity is primarily defined by traffic on Waterman Road. To quantify the existing ambient noise environment in the Project vicinity, Saxelby conducted continuous (24-hour) noise level measurements at one location and a short-term noise measurement at a separate location, as shown 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.

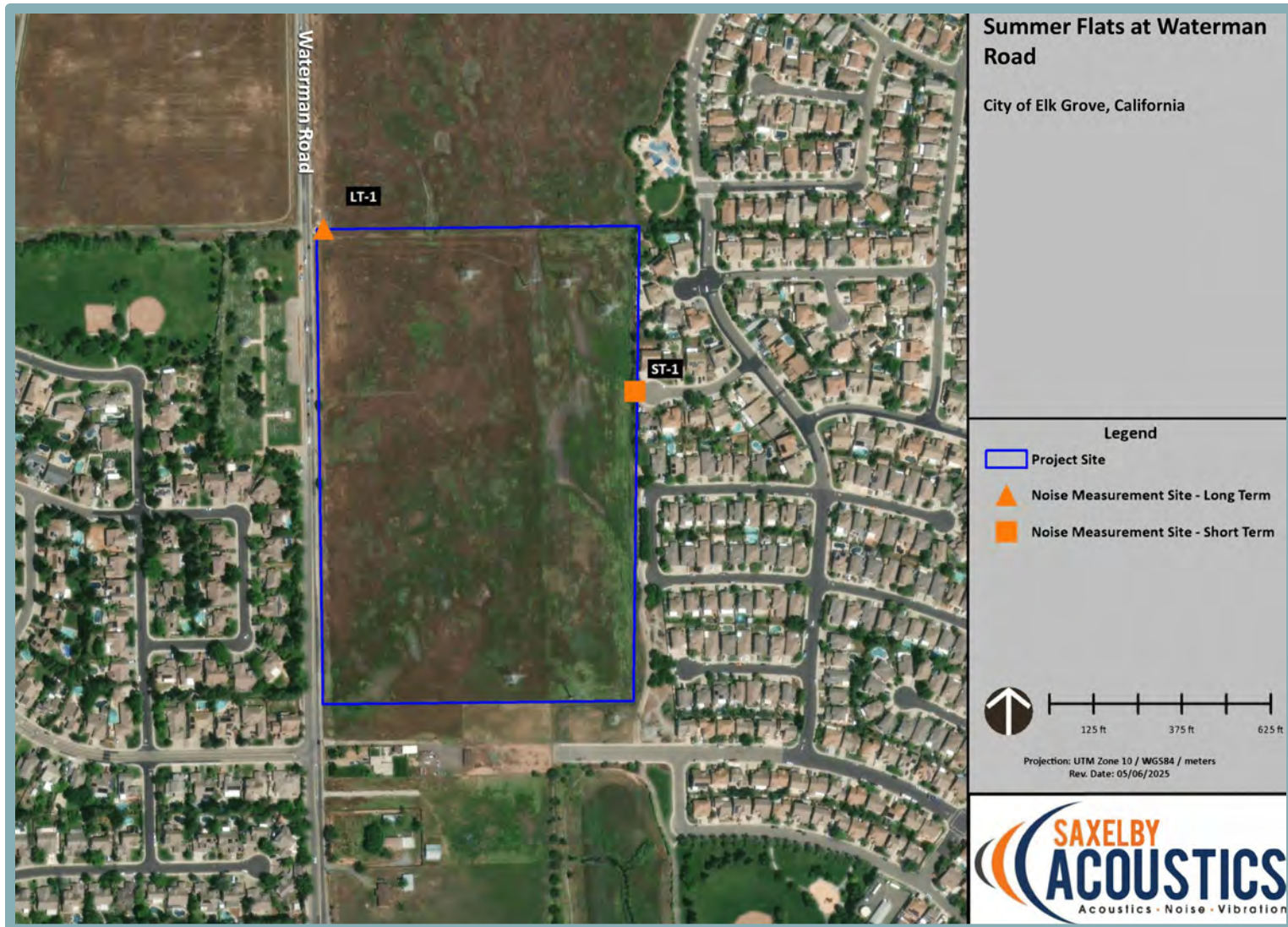
Table 4.9-2 Existing Background Noise Measurement Data (dBA)								
Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1	5/31/23	66	64	60	80	58	44	79
ST-1	5/30/23	N/A	49	48	56	N/A	N/A	N/A
Notes: • Daytime hours: 7:00 AM to 10:00 PM. • Nighttime hours: 10:00 PM to 7:00 AM. • LT-1 was measured at a point 50 feet from the centerline of Waterman Road. • ST-1 was measured at a point 900 feet from the centerline of Waterman Road.								
Source: Saxelby Acoustics, LLC, 2025.								

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 was obtained from the transportation consultant, Fehr & Peers.



**Figure 4.9-1
Noise Measurement Locations**



Source: Saxelby Acoustics, LLC, 2025.



Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each Project vicinity 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 calculation distance.

Table 4.9-3 Existing Traffic Noise Levels (dBA L_{dn})		
Roadway	Segment	Existing Exterior Noise Level at Closest Sensitive Receptors
Waterman Road	Sheldon Road to Bond Road	62.5
Waterman Road	Elk Grove Boulevard and Bond Road	64.9
Waterman Road	Mainline Drive, Dino Drive, and Elk Grove Boulevard	64.7
Bond Road	Elk Grove Florin Road and Waterman Road	63.9
Bond Road	Waterman Road and Bradshaw Road	62.5
Bond Road	East Stockton Boulevard to Elk Grove Florin Road	68.2
Elk Grove Boulevard	Elk Grove Florin Road and Waterman Road	63.9
Elk Grove Boulevard	Waterman Road and Bradshaw Road	56.1
Elk Grove Boulevard	East Stockton Boulevard to Elk Grove Florin Road	66.1
Elk Grove Florin Road	Sheldon Road and Bond Road	62.2
Elk Grove Florin Road	Bond Road and Elk Grove Boulevard	62.2
Bradshaw Road	Bond Road and Elk Grove Boulevard	60.9
<i>Source: Saxelby Acoustics, LLC, 2025.</i>		

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-unit 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.



**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 ^{d,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.

Policy N-1-2

Where noise mitigation measures are required to achieve the standards of Tables 8-3 [recreated herein as Table 4.9-4] and 8-4 [recreated herein as Table 4.9-5], the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures, including the use of distance from noise sources, have been integrated into the project.

Policy N-1-4

Protect noise-sensitive land uses, identified in Table 8-3 [recreated herein as Table 4.9-4], from noise impacts.



**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	Hourly L_{eq} , dB	55	45
Performance Standards for Stationary Noise Sources Which Are Tonal, Impulsive, Repetitive, or Consist Primarily of Speech or Music	Hourly L_{eq} , dB	50	40
^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: - Existing low or high ambient noise levels; or - 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-1-5** 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 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.

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 Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels shall be considered significant; and
- 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 [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 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; and C) uses shall not generate ground vibration that interferes with the operations of equipment and facilities of adjoining parcels. It should be noted that vibration from temporary construction/demolition and vehicles leaving a site (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 potential 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 will 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 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 impact, 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 criteria 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. The section further 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 5.0 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

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. However, 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.

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 level 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.

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 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.			

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.

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 I 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 I of this EIR.

Environmental Noise Assessment

Larson Davis Laboratories (LDL) Model 820 and 831 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).

To assess noise impacts due to temporary noise, Saxelby used the FHWA Roadway Construction 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. Such source data was used for the construction noise analysis. 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.

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 and Cumulative conditions, both with and without the Project. 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 Villas Special Planning Area, Summer Meadows Map and Rezone, and 9826 Bond Road Map projects.⁴ Noise levels due to traffic under each condition 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,

⁴ City of Elk Grove. *Current Planning Projects and Area Plans*. Available at: <https://www.elkgrove.gov/planning/current-planning-projects-and-area-plans>. Accessed November 2025.



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 L_{dn} , the input volume was adjusted to account for the day/night distribution of traffic.

Project trip generation volumes were based upon those provided in the Vehicle Miles Traveled (VMT) Memorandum prepared for the Project by Fehr & Peers (see Appendix L of this EIR). 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 the Existing, Near-Term, and Cumulative conditions resulting from the Project are provided in terms of L_{dn} .

Traffic noise levels were predicted at off-site 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.

Saxelby used the SoundPLAN noise-prediction model to calculate traffic noise levels at the proposed residential uses due to traffic on Waterman Road. Inputs to the model included sound level data for Waterman Road collected during the ambient noise monitoring surveys, topography, existing and proposed structures, roadway elevations, and the proposed building pad elevations. The predictions were made in accordance with International Organization for Standardization (ISO) Standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors). ISO 9613 is the most commonly used method for calculating exterior noise propagation.

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 and with implementation of mitigation, the impact is *less than significant*.

During construction of the Project, heavy equipment would be used for site preparation, grading, building construction, paving, and utility installation, all of 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 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.

As shown in Table 4.9-7 and Figure 4.9-2, the loudest phases of on-site construction would be site preparation and building construction, 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.



Table 4.9-7 Construction Equipment Noise Levels at 50 Feet				
Equipment	Quantity	Usage (%)	Maximum Noise Level (dBA L_{max})	Hourly Average Noise Level (dBA L_{eq})
Site Preparation				
Dozer	3	40	82	83
Tractor/Loader/Backhoe	4	40	84	86
Total	--	--	--	88
Grading				
Excavator	2	40	81	77
Grader	1	40	85	81
Dozer	1	40	82	78
Tractor/Loader/Backhoe	2	40	84	85
Total	--	--	--	87
Building Construction				
Crane	1	16	81	73
Fork Lift	3	40	83	84
Generator	1	50	81	78
Tractor/Loader/Backhoe	3	40	84	85
Welder/Torch	1	40	74	70
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

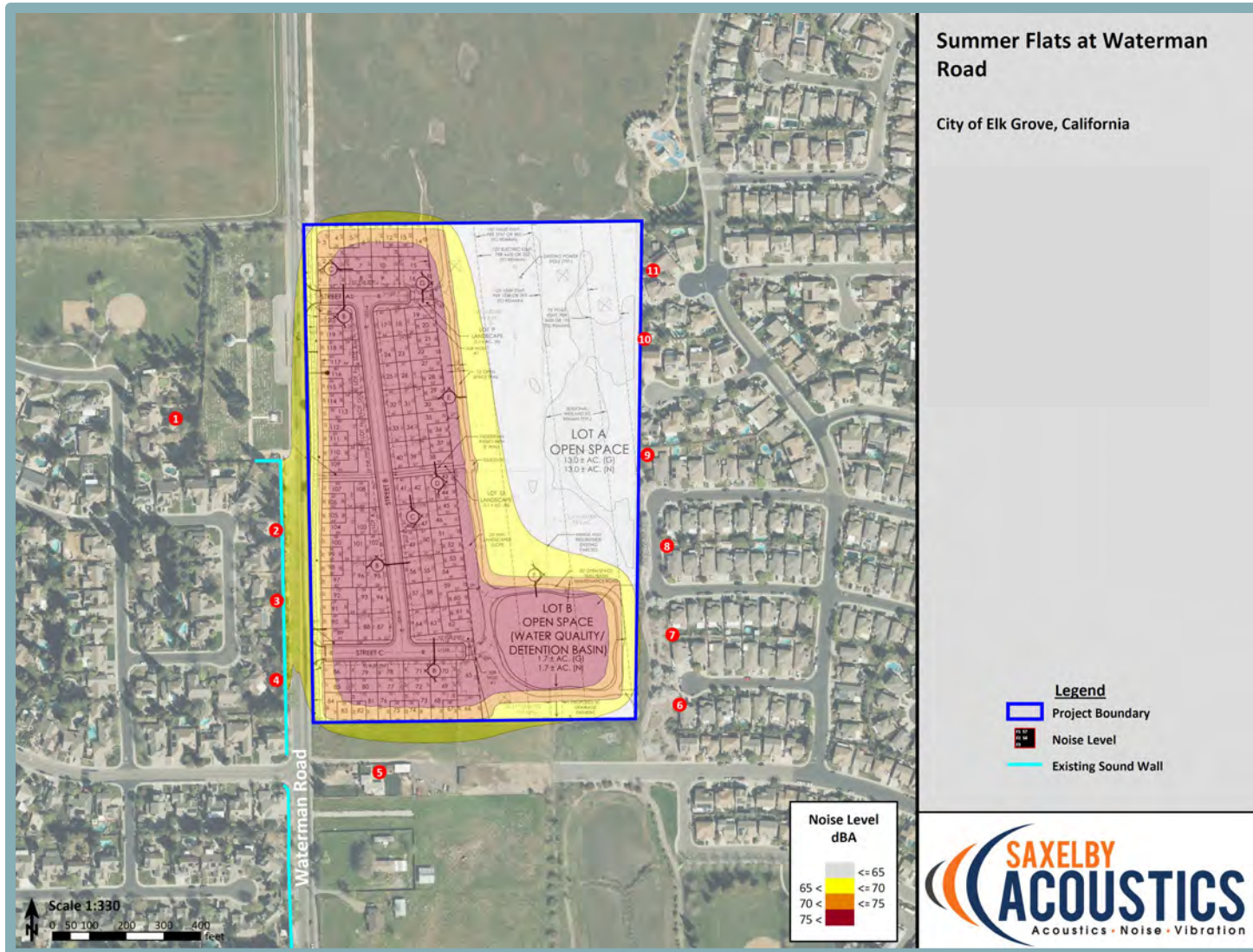
Source: Saxelby Acoustics, LLC, 2025.

Noise would be generated during the construction phase by engine mufflers, idling, stationary equipment, and increased truck traffic on area roadways, including truck traffic associated with transport of heavy materials and equipment to and from the construction site. Increases in construction-related truck traffic would be temporary in nature and are anticipated to occur during normal daytime working hours.

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.



**Figure 4.9-2
Construction Noise Levels**



Source: Saxelby Acoustics, LLC, 2025.



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 existing sensitive receptor in the site vicinity are presented in Table 4.9-8 and Figure 4.9-2.

As shown in Table 4.9-8 and Figure 4.9-2, construction of the Project is predicted to result in a maximum increase in noise levels at the nearest existing sensitive receptor above the existing average ambient noise level of nine dB, which would be below the applicable 12 dBA threshold of significance.

Notwithstanding, Appendix G of the CEQA Guidelines requires a lead agency to determine if a project would result in the generation of a substantial temporary increase in ambient noise levels. Construction-related noise could result in sleep interference at existing noise-sensitive land uses in the vicinity of the construction if construction activities were to occur outside the normal daytime hours. Therefore, impacts resulting from noise levels temporarily exceeding the applicable noise standards due to construction would be considered **significant**.

Mitigation Measure(s)

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

4.9-1 *Prior to approval of grading and/or building permits, 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 daytime hours of 7:00 AM and 7:00 PM daily;*
- *Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' 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; and*
- *Stationary equipment (e.g., power generators, compressors) shall be located at the furthest practical distance from nearby noise-sensitive receptors or sufficiently shielded to reduce noise.*

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*.**

Residential land uses do not typically generate substantial noise during operations.



**Table 4.9-8
Construction Noise Level Increases (dBA L_{eq})**

Receptor	Representative NMS	Existing Ambient	Construction Noise	Ambient + Construction	Difference	Exceeds 12 dBA Increase?
1	ST-1	49.0	57.4	58.0	9.0	No
2	LT-1	59.0	59.7	62.4	3.4	No
3	LT-1	59.0	59.5	62.3	3.3	No
4	LT-1	59.0	58.6	61.8	2.8	No
5	LT-1	64.0	58.3	65.0	1.0	No
6	ST-1	49.0	55.6	56.5	7.5	No
7	ST-1	49.0	57.0	57.6	8.6	No
8	ST-1	49.0	55.5	56.4	7.4	No
9	ST-1	49.0	55.5	56.4	7.4	No
10	ST-1	49.0	54.2	55.3	6.3	No
11	ST-1	49.0	52.9	54.4	5.4	No

Source: Saxelby Acoustics, LLC, 2025.



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 Project vicinity. Potential impacts related to Project-generated traffic noise at existing sensitive receptors are discussed further below.

In addition, while CEQA does not require an analysis of the environment's impact on the Project, effects to future residents of the Project due to traffic noise along Waterman Road are evaluated for the purpose of considering consistency with noise-related policies in the City's 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.

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 and are shown in Table 4.9-9.

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 4.9-9 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 5.0 dBA, or, where existing ambient noise levels range between 60 and 65 dBA, noise levels would increase by 3.0 dBA.

As shown in Table 4.9-9, the increase in traffic noise levels at existing noise-sensitive receptors located near roadway segments along Waterman Road, Bond Road, Elk Grove Boulevard, Elk Grove Florin Road, and Bradshaw Road attributable to the Project under Existing Plus Project conditions would result in a maximum noise level increase of 0.3 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 Noise-Sensitive Receptors

The Project would include the development of residential uses immediately east of Waterman Road. Using the methodology described above, future traffic noise levels associated with Waterman Road were estimated at the proposed residences. As shown in Figure 4.9-3, future traffic noise levels are predicted to be 67 dBA L_{dn} at the residences directly adjacent to Waterman Road, which would exceed the City's exterior noise level standard of 60 dBA L_{dn} (see Table 4.9-4).

According to the City's General Plan, an exterior noise level of up to 65 dB L_{dn} may be used as a threshold provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with Table 4.9-4. According to the Noise Assessment prepared for the Project, conventional construction typically achieves a 25 dBA noise level reduction.



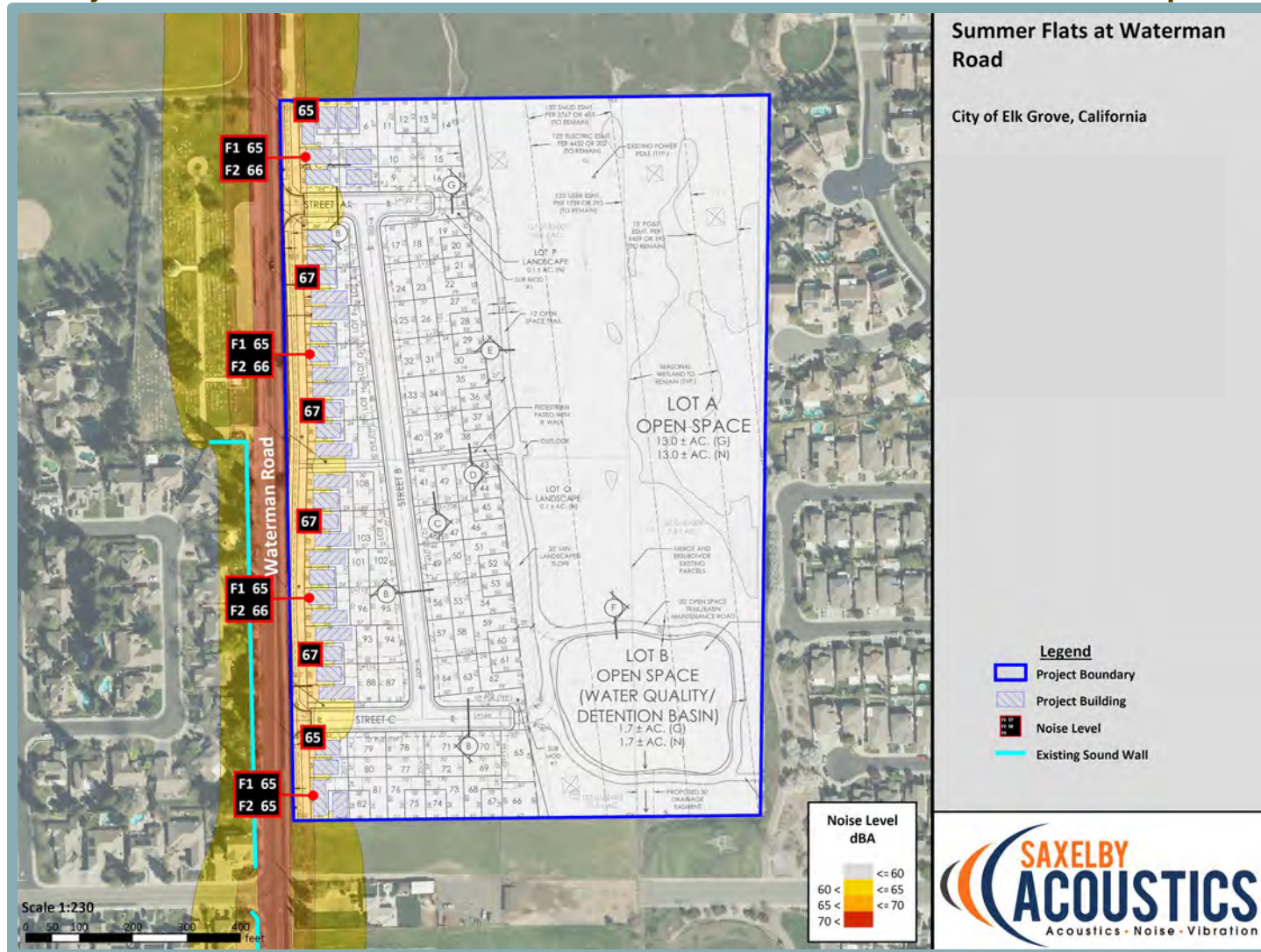
**Table 4.9-9
Predicted Existing and Existing Plus Project Traffic Noise Levels**

Roadway	Segment	Predicted Exterior Noise Level at Closest Sensitive Receptors (dBA L _{dn})				Exceeds Threshold?
		Existing	Existing Plus Project	Change	Threshold of Significance	
Waterman Road	Sheldon Road to Bond Road	62.5	62.6	+0.1	+3.0	No
Waterman Road	Elk Grove Boulevard and Bond Road	64.9	65.2	+0.3	+3.0	No
Waterman Road	Mainline Drive, Dino Drive, and Elk Grove Boulevard	64.7	64.8	+0.1	+3.0	No
Bond Road	Elk Grove Florin Road and Waterman Road	63.9	64.0	+0.1	+3.0	No
Bond Road	Waterman Road and Bradshaw Road	62.5	62.6	+0.1	+3.0	No
Bond Road	East Stockton Boulevard to Elk Grove Florin Road	68.2	66.4	-1.8	+1.5	No
Elk Grove Boulevard	Elk Grove Florin Road and Waterman Road	63.9	64.0	+0.1	+3.0	No
Elk Grove Boulevard	Waterman Road and Bradshaw Road	56.1	56.1	0.0	+5.0	No
Elk Grove Boulevard	East Stockton Boulevard to Elk Grove Florin Road	66.1	66.2	+0.1	+1.5	No
Elk Grove Florin Road	Sheldon Road and Bond Road	62.2	62.2	0.0	+3.0	No
Elk Grove Florin Road	Bond Road and Elk Grove Boulevard	62.2	62.2	0.0	+3.0	No
Bradshaw Road	Bond Road and Elk Grove Boulevard	60.9	60.9	0.0	+3.0	No

Source: Saxelby Acoustics, LLC, 2025.



Figure 4.9-3
Project-Generated Traffic Noise Levels at Future On-Site Sensitive Receptors



Source: Saxelby Acoustics, LLC, 2025.



Exterior noise levels are up to 67 dBA L_{dn} at the facades of the proposed residences; therefore, with the 25-dBA reduction, interior noise levels at the proposed residences would be approximately 42 dBA L_{dn} , which would comply with the City's 45 dBA L_{dn} interior noise level standard. As such, the Noise Assessment concluded that additional noise control measures related to interior noise levels would not be required.

In order to comply with the City's 60 dB L_{dn} exterior noise level standard as outlined in General Plan Policy N-1-1, the Project would be required to construct eight-foot-tall noise barriers along Waterman Road as shown in Figure 4.9-4. The noise barriers could take the form of masonry wall, earthen berm, or a combination of the two. As shown in Figure 4.9-4, the sound barriers would reduce noise levels at the outdoor areas of the proposed residences to 61 dBA L_{dn} or below, which would comply with the City's 65 dBA L_{dn} noise level standard. Therefore, to ensure the Project complies with the City's noise level standards, the City shall condition the Project to construct noise barriers prior to the issuance of any building permit for residential construction, as set forth in the Project condition of approval below:

- The Project shall construct an eight-foot-tall noise barrier along Waterman Road, as shown in Figure 4.9-4. 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 Waterman 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.

Conclusion

Based on the above, the Project would not result in the generation of a substantial permanent increase in ambient noise at existing residences located within the immediate Project vicinity or the generation of a substantial permanent increase in ambient noise levels in excess of applicable standards. 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*.

Development of the Project would consist of a residential community, which would not involve equipment that generates 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 would have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved.



Construction would use typical construction equipment and would not require significant sources of vibration such as pile driving or blasting. Table 4.9-10 below shows the vibration levels produced by typical construction equipment.

Table 4.9-10			
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.			

Table 4.9-10 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 are existing residences located to the west, across Waterman Road, and to the south. All 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.

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 cumulative impact is less than significant.

Future development projects within the City of Elk Grove would incrementally affect the cumulative ambient noise environment. Given the residential nature of the Project, the primary Project component that could combine with noise impacts from surrounding development in the 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.

In order to assess the potential noise impacts due to traffic increases from the Project on the local roadway network under cumulative conditions, noise levels have been calculated under Cumulative and Cumulative Plus Project conditions at the nearest existing sensitive receptors using the methodology described in the Method of Analysis section. Table 4.9-11 compares Cumulative 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 0.1 dBA L_{dn} , which would be below the applicable +1.5 to +5.0 dBA increase significance criteria.

Based on the above, under the Cumulative Plus Project condition, the Project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of applicable 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 4.9-11
Predicted Cumulative Plus Project Traffic Noise Levels

Roadway	Segment	Predicted Exterior Noise Level at Closest Sensitive Receptors (dBA L _{dn})				Exceeds Threshold?
		Cumulative	Cumulative Plus Project	Change	Threshold of Significance	
Waterman Road	Sheldon Road to Bond Road	64.3	64.4	+0.1	+3.0	No
Waterman Road	Elk Grove Boulevard and Bond Road	67.6	67.7	+0.1	+1.5	No
Waterman Road	Mainline Drive, Dino Drive, and Elk Grove Boulevard	68.0	68.1	+0.1	+1.5	No
Bond Road	Elk Grove Florin Road and Waterman Road	64.8	64.9	+0.1	+3.0	No
Bond Road	Waterman Road and Bradshaw Road	63.5	63.6	+0.1	+3.0	No
Bond Road	East Stockton Boulevard to Elk Grove Florin Road	67.0	67.0	+0.1	+1.5	No
Elk Grove Boulevard	Elk Grove Florin Road and Waterman Road	63.6	63.7	+0.1	+3.0	No
Elk Grove Boulevard	Waterman Road and Bradshaw Road	58.0	58.0	0.0	+5.0	No
Elk Grove Boulevard	East Stockton Boulevard to Elk Grove Florin Road	66.9	66.9	0.0	+1.5	No
Elk Grove Florin Road	Sheldon Road and Bond Road	64.0	64.0	0.0	+3.0	No
Elk Grove Florin Road	Bond Road and Elk Grove Boulevard	63.5	63.5	0.0	+3.0	No
Bradshaw Road	Bond Road and Elk Grove Boulevard	65.1	65.1	0.0	+1.5	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 Summer Flats Project (Project) on fire and law enforcement 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 the adequacy of the wastewater system, solid waste disposal, and gas, electricity, and telecommunication services. Potential impacts to public services are identified if the Project 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 Sewer Flow Assessment (SFA)¹ and a Domestic Water Demand Analysis² prepared for the Project by Wood Rodgers (see Appendices J and K). Consultation with various public service agencies on the Project was also conducted. Additional information was drawn from the City of Elk Grove General Plan³ 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 law enforcement 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. 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 175 personnel in the Operations Division 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 0.80-mile northeast 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. The CCSD fire district also participates in mutual aid with neighboring agencies and are called on by the California Office of Emergency Services (Cal OES) to assist in larger incident events.

¹ Wood Rodgers. *Summer Flats at Waterman Road Sewer Flow Assessment*. March 18, 2025.

² Wood Rodgers. *Summer Flats at Waterman Road Domestic Water Demand Analysis*. February 20, 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.



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.⁵

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.⁶ 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 was created by a contract with the Sacramento County Sheriff's Department on October 28, 2006, with service boundaries contiguous with the City limits. 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 provides traffic enforcement and accident investigations along the Interstate 5 (I-5) and State Route (SR) 99 corridors from the police 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 2.24 miles west of the site. The service area is split into five regularly patrolled police beats. According to the City's General Plan EIR, the EGPD has an authorized strength of 141 sworn officers, 86 civilian personnel, and responds to an average of 52,000 calls each year.

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.

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 high schools, an alternative education school, four continuation schools, and a special education school. According to the EGUSD's online school locator, the Project 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.⁷ Based on the EGUSD's Facilities Master Plan, Katherine L. Albiani Middle School and Pleasant Grove High School are projected

⁵ 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.

⁶ Cosumnes Community Services District. *Budget in Brief, Biennial Budget FY 2023-23 & FY 2024-25*. Accessed April 2025.

⁷ Elk Grove Unified School District. *Boundary Information*. Available at: <https://www.egusd.net/StudentsFamilies/FormsQuick-Links/Boundary-Information/index.html>. Accessed April 2025.



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 non-residential 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 \$7.32 per square foot (sf) of residential development.⁸ The EGUSD also collects a Mello-Roos tax, with the taxes applied at various stages during project review and development.

Parks and Recreational Facilities

The CCSD provides parks and recreation services to the City through the 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. According to the City's General Plan EIR, the CCSD manages a total of 98 parks, 18 miles of off-street trails, two community centers, four recreation centers, and two aquatic complexes. The nearest public park to the site is Elaine and Jim Wright Park, located immediately northeast of the site. In addition, the site is located approximately 270 feet east of Jack E. Hill Park, located across Waterman Road. The City and CCSD maintain a goal of providing a minimum of five acres of active parkland per 1,000 residents.

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 11 – East Elk Grove.

Other Public Facilities

The nearest library to the site is the Elk Grove Library, located at 8900 Elk Grove Boulevard, approximately 1.02 miles southwest of the site. The Elk Grove Library is planned to relocate to 9260 Waterman Road, which is located approximately 0.27-mile south of the site. Funding for library operations comes from County and City property taxes, as well as City of Sacramento General Fund/Measure U and parcel tax (Measures B and X) revenues.

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 Omochochumne-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 Elk Grove

⁸ Elk Grove Unified School District. *Facilities and Planning*. Available at: <https://www.egusd.net/Departments/Facilities-and-Planning/index.html>. Accessed October 2025.



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 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).

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.⁹ 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 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
<i>Source: EGWD, 2020 Urban Water Management Plan [Table 3-2], June 2021.</i>	

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 surrounding area. EGWD does not have a water right other than the contract 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.

⁹ Elk Grove Water District. 2020 Urban Water Management Plan. Adopted June 15, 2021.





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.¹⁰

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 existing 16-inch water line within Waterman Road to the west of the site, as well as an EGWD 10-inch water distribution line and a SCWA 16-inch water main approximately 700 feet south of the site boundaries.

Wastewater Conveyance and Treatment

The site would be provided wastewater collection and treatment services by the Sacramento Area Sewer District (SacSewer). It should be noted that 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 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 LA Elk Grove Trunk Shed as reflected in the SacSewer 2020 System Capacity Plan. Therefore, the sections below discuss the sewer services currently provided by 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. In total, SacSewer serves approximately 1.6 million residential, commercial, and industrial customers. 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.¹¹

SacSewer trunk sewer pipes transport the collected wastewater flows to the SacSewer interceptor system. According to the City’s General Plan EIR, an existing City trunk line extends southeast from the EchoWater Resource Recovery Facility (EchoWater Facility) to Laguna Boulevard, then parallel to SR 99 along East Stockton Boulevard, extending close to the southern City boundary.

¹⁰ Elk Grove Water District. 2020 Urban Water Management Plan [pg. 5-1]. Adopted June 15, 2021.

¹¹ Sacramento Area Sewer District. Sewer System Management Plan [Table 1-2]. June 27, 2024.



Wastewater conveyance infrastructure in the site area includes existing sewer lines within Waterman Road located approximately 700 feet south of the site.

Wastewater Treatment

The EchoWater Facility, which is operated by SacSewer, 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 EchoWater Facility and nearby residential areas. Wastewater is treated to a tertiary standard and discharged into the Sacramento River; however, some effluent is used by the City of Elk Grove for landscape irrigation. The EchoWater Facility is permitted to treat an average dry weather flow (ADWF) of 181 million gallons per day (mgd).

The EchoWater Facility 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.¹² The Master Plan uses SACOG population projections multiplied by per capita flow and load values to determine future facility needs. The EchoWater Facility's capacity is currently limited to an equivalent 207 mgd ADWF and the EchoWater Facility 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 EchoWater Facility, 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 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.			

¹² Sacramento Area Sewer District. *System Capacity Plan 2020 Update*. December 2020.



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 City are provided by the Pacific Gas and Electric Company (PG&E). PG&E is one of the largest providers of electricity and natural gas throughout the State. 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 site vicinity. Additionally, three easements containing transmission towers, utility poles, and overhead power transmission lines are generally located within the eastern half of the site.

4.10.3 REGULATORY CONTEXT

The following discussion contains a summary of regulatory controls pertaining to public services and utilities, including federal, 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 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 DWR's 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-unit residences. 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 to: 1) identify the responsible public water purveyor for a proposed development project, and 2) 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 would include a total of 120 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 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 MWEL. 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 MWEL 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 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.

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, California Building Standards Code (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 2020.¹³

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.

Community and Resource Protection Chapter

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.

¹³ Elk Grove Water District. 2020 *Urban Water Management Plan*. Adopted June 15, 2021.



	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.

Services, Health, and Safety Chapter

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 MWEL. 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

In accordance with Appendix G of the CEQA Guidelines, impact determinations regarding public services and utilities require consideration as to whether the Project would:

- 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:
 - o Fire protection;
 - o Police protection;
 - o Schools;
 - o Parks; or
 - o 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 treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments;
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Impacts related to groundwater recharge and 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, an SFA¹⁴ (see Appendix J) and a Domestic Water Demand Analysis¹⁵ (see Appendix K) 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).¹⁶ 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 Public Recreation.

¹⁴ Wood Rodgers. *Summer Flats at Waterman Road Sewer Flow Assessment*. March 18, 2025.

¹⁵ Wood Rodgers. *Summer Flats at Waterman Road Domestic Water Demand Analysis*. February 20, 2025.

¹⁶ Sacramento County Water Agency. *Zone 40 Water System Infrastructure Plan Update*. September 2016.



**Table 4.10-3
Water Demand Factors**

Land Use	Gross Unit Water Demand Factor (AFY)	2016 SCWA Plan	
		Acreage	Water Demand (AFY)
Rural Estate	1.37		
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	27.6	77.3
Mixed Land Use	2.15		
Right of Way	0.18		
Self Suppt./Supp. by Others			
Non-Irrigated	--		
Industrial – Unused	--		
Agricultural	--		
Total Area and Demand		27.6	77.3

Source: Wood Rodgers, February 2025.

Sewer Flow Analysis

Because the site is located within the SacSewer LA Elk Grove 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 EchoWater Facility. 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:

- $PWWF \text{ (mgd)} = (ADWF \times \text{peaking factor})$
- $ADWF \text{ (mgd)} = (310 \text{ gallons per day [gpd]} / \text{equivalent single-unit dwelling [ESD]}) \times (\text{number of ESDs} / \text{acre}) \times (\text{number of acres}) / 1,000,000$
- $\text{Peaking factor} = 3.5 - 1.8 \times ADWF^{0.05}$, where the ADWF is in mgd, and a minimum value of the peaking factor is 1.2
- $\text{Inflow and infiltration (mgd)} = 1,600 \text{ gpd/acre} \times (\text{number of acres}) / 1,000,000$

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, 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 CCSO from Station 73, located at 9607 Bond Road. Station 73 is located approximately 0.80-mile northeast of the site. Although implementation of the Project would increase the number of structures protected by local fire protection services, CCSO 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.¹⁷

According to communications from CCSO, 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 CCSO 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, response times to the site would be sufficient.¹⁸

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.¹⁹ City of Elk Grove voters also approved Measure E on November 8, 2022, a one-cent local sales tax which enacted locally controlled funding.²⁰ 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 tax paid by future residents. Therefore, payment of the City's property taxes and development fees, as

¹⁷ Rey, Lantz, Assistant Fire Chief/Fire Marshal, Fire Department, Cosumnes Community Services District. Personal communication [email] with Angela DaRosa, Division Manager/Air Quality Specialist, Raney Planning and Management. April 4, 2025.

¹⁸ 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.

¹⁹ City of Elk Grove. *2025 Development Related Fees*. January 1, 2025.

²⁰ Cosumnes Community Services District. *Budget in Brief, Biennial Budget FY 2023-23 & FY 2024-25*. Accessed April 2025.



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. As previously described, the EGPD primarily operates out of facilities located in the City Hall complex at 8380 and 8400 Laguna Palms Way, approximately 2.24 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.²¹ 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.²² Additional funding for law enforcement facilities 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 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, sheriff protection facilities, construction of which could cause significant environmental impacts.

²¹ Nijjar, Jazvie, Officer, Media and Community Relations Unit, Elk Grove Police Department. Personal communication [email] with Angela DaRosa, Division Manager/Air Quality Specialist, Raney Planning and Management. January 22, 2025.

²² City of Elk Grove. 2025 Development Related Fees. January 1, 2025.



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 construct 120 new single-unit residences within the EGUSD. Based on the student generation rates provided by the EGUSD,²³ the Project is expected to generate a total of 74 students (see Table 4.10-4).

Table 4.10-4 Student Generation by Grade		
Grade Level	Generation Rate Per Single-Unit Residence	Students Generated by Project
Elementary (TK-6)	0.3523	42
Middle School (7-8)	0.0932	11
High School (9-12)	0.1767	21
Total (TK-12)	0.6222	74
<i>Source: EGUSD, School Facilities Needs Analysis [Table 2-1], May 2023.</i>		

As discussed in the EGUSD's School Facilities Needs Analysis, the projected number of students generated by new residential units constructed through 2028 totals 4,946 elementary school students, 1,259 middle school students, and 2,371 high school students. The anticipated student generation was estimated based on the land use designations within the City of Elk Grove General Plan and includes a total of approximately 12,014 single-unit residences and 2,467 multi-unit residences. Although the Project would include General Plan/East Elk Grove Community Plan Amendments and a Rezone, the site was anticipated for residential uses. Therefore, although the Project would increase the number of units and population associated with buildout of the site from what has been anticipated by the City, an increase in student population associated with buildout of the site was generally anticipated by the EGUSD.

As previously discussed, based on anticipated students from new development, the Facilities Master Plan noted that projected enrollment is anticipated to exceed the capacities of Katherine L. Albani Middle School and Pleasant Grove High School by the 2029-2030 school year.²⁴ Edna Batey Elementary School is anticipated to be at 80 percent capacity by the 2029-2030 school year. As a result of the potentially overcrowded schools, the Facilities Master Plan recommends the construction of portables or classroom buildings to expand capacity at Pleasant Grove High School, and new classrooms at Katherine L. Albani Middle School.

²³ Elk Grove Unified School District. *School Facilities Needs Analysis*. May 2023.

²⁴ Elk Grove Unified School District. *2025-2035 Facilities Master Plan*. July 16, 2024.



The Project would be required to pay EGUSD's currently active developer fees, which are \$7.32 per sf of residential development,²⁵ as well as a Mello-Roos tax applied at various stages during Project review and development. 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]).

To the extent that EGUSD may decide additional facilities are needed to accommodate increases in student populations from new development, such as from the Project, EGUSD would control what needs to be built and when new construction would be necessary. The City is not in a position to speculate about what steps EGUSD would take (see PRC Section 21151.8 [school districts are CEQA lead agencies for school projects]). Whether EGUSD would actually need to obtain new buildings to educate an increased student population from new development within the district's boundaries would be dependent on ongoing facility needs estimates and student population projections, which are subject to change over time based on factors such as changing birth rates and other social and economic factors.

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 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**

²⁵ Elk Grove Unified School District. *Facilities and Planning*. Available at: <https://www.egusd.net/Departments/Facilities-and-Planning/index.html>. Accessed October 2025.



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 120 single-unit residences. As discussed in Chapter 4.8, Land Use and Planning/Population and Housing, of this EIR, and based on an average of 3.09 persons per household, the Project could potentially house approximately 371 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 14.7 acres of open space, which would retain the existing transmission towers and overhead power lines and contain the proposed water quality/detention basin. In addition, the lot would include a meandering 12- to 20-foot-wide multi-use path that would primarily proceed in a north-to-south direction to the east of the proposed residences. The trail would pivot towards the east along the southern site boundary and include a 12-foot-wide connection to an existing trail to the east of the site. At the midpoint of the trail's north-to-south segment, the Project would include construction of an outlook structure.

Based on the City's requirement of five acres of parkland per 1,000 residents (General Plan Policy PT-1-3 and EGMC Chapter 22.28.030), the Project would be required to provide a minimum of approximately 1.86 acres of parkland (0.005 acres/resident x 371 estimated residents). The Project does not include any dedicated parkland; thus, payment of in-lieu fees would be required pursuant to EGMC Chapter 22.28.030, which would contribute a fair-share portion of funds for expansion of parkland and recreation facilities required to serve new development in the City.

Although the proposed open spaces would not contribute towards the Project's parkland dedication, the provided 14.7 acres of open space and associated trails would contribute to meeting the demand for outdoor areas created by future residents. Therefore, 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 1.02 miles southwest of the site. The Elk Grove Library is planned to relocate to 9260 Waterman Road, which is located approximately 0.27-mile south of the site.

The City of Elk Grove maintains public facilities such as public libraries and community buildings, which could potentially be used by residents of the Project. The City's existing public facilities currently accommodate the existing population. The addition of residents associated with buildout of the site was partially anticipated as part of the City's planning efforts due to the existing land use and zoning designations. In addition, not all Project-generated residents would use such facilities, nor would all residents use the facilities continuously or simultaneously. Therefore, 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. 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.²⁶ Additional funding for library operations comes from County and City property taxes. Payment of the City's property taxes and development fees would contribute towards ensuring adequate facilities exist to serve the community..

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.

²⁶ City of Elk Grove. 2025 Development Related Fees. January 1, 2025.



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, wastewater treatment, stormwater drainage, electric power, natural gas, and telecommunications facilities improvements that would be necessary to serve the Project.

Water Supply Infrastructure

As shown in Figure 4.10-2, the Project would connect to existing 16- and 10-inch water lines within Waterman Road located approximately 700 feet south of the site at the Waterman Road/Cruz Court intersection. The proposed connection would occur by way of a new 16-inch water line within Waterman Road west of the site. The new 16-inch water line would connect to the interior of the site by way of a series of new eight-inch lines extending throughout the proposed on-site roadways. 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 the Project.

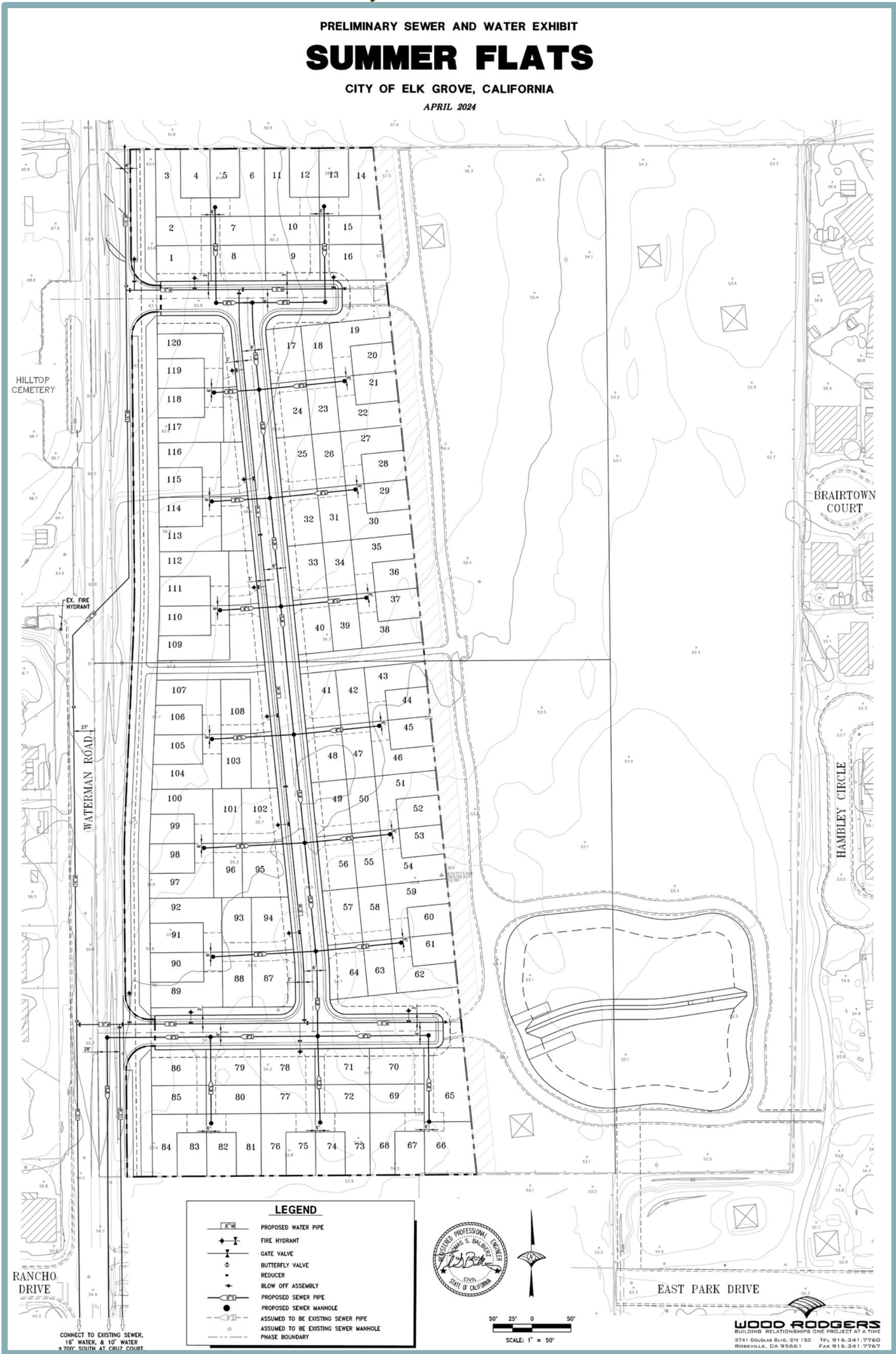
All potential physical environmental impacts that could result from development of the Project, including the proposed water distribution infrastructure, have been evaluated throughout the technical chapters of this EIR (i.e., Chapters 4.1 through 4.11). All new water infrastructure would be designed 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).²⁷ As such, all water utility improvements would be required to comply with SCWA standards, as well as applicable State codes, as ensured during the City's review processes. 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 Project, and the Project would not require the construction of new or expanded water conveyance infrastructure beyond the improvements noted above.

²⁷ 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 April 2025.



Figure 4.10-2
Preliminary Sewer and Water Exhibit



Wastewater Conveyance Infrastructure

As shown in Figure 4.10-2, the Project would connect to existing sewer lines within Waterman Road located approximately 700 feet south of the site at the Waterman Road/Cruz Court intersection. The proposed connection would occur by way of a new eight-inch sewer line within Waterman Road, which would receive wastewater generated by the Project from a series of new eight-inch lines extending throughout the proposed on-site roadways.

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 (i.e., Chapters 4.1 through 4.11). 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.²⁸ Compliance with the City's applicable design standards would be ensured through the City's Design Review process.

Based on the above, the existing wastewater conveyance infrastructure is sufficiently sized to accommodate the increased demand from the Project, 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. As required by General Plan Policy LU-5-3 and EGMC Section 23.63.020, existing overhead utility lines under 69 kilovolts (kV) shall be undergrounded as a condition of project approval. The existing utility lines along the site's western boundary, to which the Project would connect, are greater than 69 kV and would not 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.

Although the Project would result in development of the site at an increased density relative to what has been anticipated based on the site's land use and zoning designations, the existing residential General Plan and zoning designations indicate that the site was generally anticipated for residential uses as part of the General Plan EIR and, thus, such utilities have been designed to accommodate some level of additional demand associated with buildout of the site. Therefore, the site has been envisioned as an extension of the existing community and planned for such as part of City development. In addition, specifically related to electricity services, the site is within the service boundaries for SMUD, and SMUD reviewed the Project application and did not have any concerns regarding their ability to serve the Project with

²⁸ Sacramento Area Sewer District. *Standards and Specifications*. September 27, 2023.



existing infrastructure and facilities. Overall, upsizing or upgrading of the existing dry utilities would not be required to serve the Project, and a less-than-significant impact would occur.

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 120 single-unit residences and various associated improvements. Thus, the Project would result in increased demand for water supplies relative to existing conditions. As previously discussed, the Project would house an estimated 371 residents. 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 zoned for residential uses and, thus, increased water demand associated with on-site development has been generally accounted for in regional planning efforts. However, the 2016 SCWA Plan identified the entire site as Public Recreation. Table 4.10-5 presents the water demand generated from buildout of the site under the Public Recreation uses compared to water demand associated with buildout of the Project's proposed residential uses.

Table 4.10-5 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				
Single Family	2.13				
Multi-Family – Low Density	2.44			10.4	25.4
Multi-Family – High Density	3.33				
Commercial	2.02				
Industrial	2.02				

(Continues on next page)



Table 4.10-5 Water Demand Comparison					
Land Use	Unit Water Demand Factor (AFY)	2016 SCWA Plan		Project	
		Area (Acres)	Water Demand (AFY)	Area (Acres)	Water Demand (AFY)
Public	0.81				
Public Recreation	2.80	27.6	77.3	3.2	9.0
Mixed Land Use	2.15				
Right of Way	0.18			1.0	0.2
Self Suppt./Supp. by Others					
Non-Irrigated	--			13.0	0
Industrial – Unused	--				
Agricultural	--				
Total Area and Demand		27.6	77.3	27.6	34.6
<i>Source: Wood Rodgers, February 2025.</i>					

As shown in the table, the Project would decrease total water demand by approximately 42.7 AFY as compared to the water demand anticipated by the 2016 SCWA Plan. Therefore, according to the Domestic Water Demand Analysis prepared for the Project, water demands previously associated with the 2016 SCWA Plan more than compensate for the demands associated with the Project.

With respect to the preliminary landscape plans provided at this time, the Project would include a 32.5-foot-wide landscape corridor, featuring a 10-foot-wide Class I multi-use path proceeding parallel to Waterman Road, which would be flanked by new landscaping trees on each side. The proposed pedestrian paseo and several lots located throughout the residential community would be planted with new landscaping trees. In addition, the lot would include a meandering 12- to 20-foot-wide multi-use path with a minimum 25-foot-wide landscaped slope that would primarily proceed in a north-to-south direction to the east of the proposed residences. All landscaping would be consistent with the development standards and requirements set forth by EGMC Section 23.54.040. In addition, the Project would be subject to Chapter 14.10 of the EGMC, which incorporates water efficiency standards equivalent to or greater than the State MWEL. 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 MWEL would be ensured during the Design Review processes 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. Furthermore, the proposed landscaping would allow for the reduction of turf throughout the proposed open space areas, which would limit the amount of irrigation water needed within the site.



In addition, 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.²⁹

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 water 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 has 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*.

Wastewater from the site would ultimately be routed to, and treated at, the EchoWater Facility, which is operated by SacSewer and discharges treated effluent to the Sacramento River. The Project is anticipated to result in a total of 120 single-unit 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.

As shown in the table, the total sewer flow for the Project (0.095 mgd) is less than the estimated flows generated by the 2020 System Capacity Plan base assumptions (0.144 mgd). Therefore, wastewater generated by the Project could be adequately accommodated by the EchoWater Facility's currently available capacity.

²⁹ Elk Grove Water District. 2020 Urban Water Management Plan [pg. 5-1]. Adopted June 15, 2021.



Table 4.10-6 Sewer Flow Comparison					
Land Use	Area (acres)	ESDs / Acre	Total ESDs, ESD / acre factor	Total ESDs, Project Lot Count	Total Sewer Flow (mgd)
2020 SacSewer Plan	27.6	6	166	N/A	0.144
Project	11.9 ^a	10 ^b	119	120	0.095
^a <i>Where the development area is the total site area minus non-flow generating areas (i.e., the open space lots and Waterman Road ROW)</i> ^b <i>Estimated ESDs per acre are based on the typical medium-density residential value.</i>					
<i>Source: Wood Rodgers, March 2025.</i>					

Based on the above, the Project would result in a determination by the wastewater treatment provider that adequate wastewater treatment capacity exists 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 comply 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, as ensured by the City's standard conditions of approval and permitting process. 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. Environmental Protection Agency's (USEPA) report, *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*, residential construction activities generate an average of 4.39 pounds per sf (lbs/sf) of waste.³⁰ The Project would include construction of 120 single-unit residences. As discussed in Chapter 3, Project Description, of this EIR, the proposed residences

³⁰ U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*. 2009.



would include interior space totals ranging from 1,382 sf to 1,697 sf, as well as a 400-sf, two-vehicle garage. Therefore, for analysis purposes, each single-unit residence was conservatively estimated to include 2,097 sf of building space (1,697 sf + 400 sf = 2,097 sf). As such, the Project could result in a total buildout square footage of 251,640 sf, construction of which would produce approximately 1,104,700 lbs (552.4 tons) of construction waste (4.39 lbs/sf x 251,640 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 359 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 193.4 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 120 single-unit residences has been estimated based on an average waste generation rate for single-unit residential development of 10.2 pounds per unit per day.³¹ As such, the Project could produce approximately 1,224 pounds of solid waste per day. A total of 1,224 pounds of solid waste per day would equate to approximately 223.38 tons per year, 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.

³¹ California Department of Resources Recycling and Recovery. *Estimated Solid Waste Generation Rates*. Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>. Accessed April 2025.



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 by EGMC Chapter 16.85 to pay a Fire Fee, and local sales and property taxes would provide funding to support operations. Furthermore, development within the site, 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. 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.³²

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.

³² Nijjar, Jazvie, Officer, Media and Community Relations Unit, Elk Grove Police Department. Personal communication [email] with Angela DaRosa, Division Manager/Air Quality Specialist, Raney Planning and Management. January 22, 2025.



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 school impact fees, similar to the Project, which would contribute to the facilitation of school expansions to serve the needs of the area. 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 by EGMC Chapter 16.95 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.

4.10-11 Increase in demand for utilities and service systems associated with the Project, in combination with future buildout of the City of Elk Grove. Based on the analysis below, the Project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

The following discussion provides an analysis of the Project's contribution to cumulative impacts related to the increased demand for utilities and service systems within the City.

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 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 EchoWater Facility. However, regional water conservation efforts have resulted in a reduction in water use, which has in turn, increased the available capacity at the EchoWater Facility. 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. As discussed under Impact 4.10-9, the Project would not be considered a significant contribution of solid waste to the existing landfills. In addition, Republic Services and the other permitted haulers that serve the City would 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.

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 Impact Analysis Report prepared for the Project by Fehr & Peers (see Appendix L 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 City, including the site's surrounding roadway network, transit, bicycle, and pedestrian facilities.

Existing Roadways

The following sections provide a summary of the existing roadways within the surrounding area of the site.

State Route 99

State Route (SR) 99 is a major interstate 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 part of City of Elk Grove to Bruceville Road to the west. 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 subject to the Elk Grove Rural Road Improvement Policy. 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 Flats Transportation Analysis Report*. March 2026.

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 north 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 0.8-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 up to Bond Road and then finally continues 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.

Rancho Drive

Rancho Drive is a local east-west roadway that intersects Waterman Road at the southwestern corner of the site. The roadway extends eastward from Waterman Road, serving nearby residential areas. The project site is located immediately northeast of the Waterman Road and Rancho Drive intersection, making Rancho Drive an important connection. Rancho Drive is a two-lane roadway without a median, typical of residential streets in Elk Grove.

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 for a majority of City's boundary east of SR 99. West of SR 99, Calvine Road continues as Cosumnes River Boulevard and connects to Interstate 5 (I-5). 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 south 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.

Elk Grove Boulevard

Elk Grove Boulevard is an east-west road extending from I-5 to Grant Line Road. Elk Grove Boulevard is six lanes from I-5 to East Stockton Boulevard, four lanes to Elk Grove-Florin Road, and two lanes to Grant Line Road. Elk Grove Boulevard currently meets the General Plan designation of a four-lane arterial between I-5 and Elk Grove Florin Road and the designation of a two-lane minor arterial between Elk Grove Florin Road and Waterman Road. Elk Grove Boulevard does not currently meet the General Plan designation as a four-lane arterial east of Waterman 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

Existing sidewalks are located along Elk Grove Boulevard, Bond Road, and along the western side of Waterman Road in the vicinity of the site. A new multi-use path was constructed as part of the under construction Elliot Springs Special Planning Area (SPA) Subdivision north 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 that will 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 to the northwest 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.

Pedestrian Streetscore Level of Stress

The Pedestrian Level of Traffic 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

⁴ City of Elk Grove. *Bicycle, Pedestrian, & Trails Master Plan*. May 2021.



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.
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.
<i>Source: Fehr & Peers, 2025.</i>	

The BPTMP designates the segments of Bond 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.
 - o 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.
 - o 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.
 - o 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, Bond Road and Elk Grove Boulevard in the vicinity of the site are currently striped as Class II Bicycle Lanes. A new multi-use path was constructed as part of the existing subdivision to the northwest of the site. The Sheldon Road/Waterman Road intersection includes a recently improved roundabout bicycle crossing.



The BPTMP and the Rural Road Improvement Policy and Standards include a planned Class II Buffered Bicycle lanes along Waterman Road to the north of Bond Road 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 parallel to Waterman Road north of Bond Road. The Rural Road Improvement Policy and Standards include planned bike lanes along Sheldon Road within the Rural Residential area of the City.

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 Waterman Road as LTS 3 north of the site and LTS 4 south of the Project frontage. Bond Road is designated as LTS 4 west of the site and LTS 4 east of Bradshaw Road. All approaches at Waterman Road and Bond Road intersection are also designated as LTS 4. The LTS score is due primarily to the travel speed and lack of bicycle infrastructure on Waterman and Bond Road. 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

The nearest bus stops are located at the Bond Road/Waterman Road intersection (0.5-mile north of the site) and the Elk Grove Boulevard/Waterman Road intersection (0.25-mile south of the site). Transit routes operating in the vicinity of the site are as follows:

- Route E116 is a local route that provides service from Elk Grove Boulevard at Clarke Farms Drive to Cosumnes River College by Bruceville Road and Elk Grove Boulevard. The route runs northwest Monday through Friday from approximately 6:00 AM to 8:00 PM to Cosumnes River College and southeast from approximately 7:00 AM to 8:30 PM. The nearest stop is located approximately 0.25-mile south of the site at Elk Grove Boulevard and Waterman 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 located 1.5 miles northwest of the site at Bond 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 located 0.5-mile north of the site at Bond Road and Elk Grove Florin Road.
- Route E16 is a commuter route that provides service from the Elk Grove Boulevard/Clarke Farms Drive roundabout to downtown Sacramento. The route provides two buses towards Sacramento in the morning at 6:28 AM and 6:58 AM on Monday through Friday and two buses returning to Elk Grove in the evening at 4:00 PM and 4:30 PM. The nearest stop is located 0.5-mile north 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 CEQA. Thus, consistent with the CEQA Guidelines, VMT is the primary metric used to identify transportation impacts within this chapter.



VMT is a measure of the total amount of vehicle travel occurring on a given roadway system, and 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).

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., for 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 VMT¹
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.	
<i>Source: Fehr & Peers, 2025.</i>	

Table 4.11-4		
Daily VMT Per Service Population by Land Use Category		
Land Use Designation	VMT Per Service Population	
	Base Year (2020)	VMT Limit¹
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

(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 Limit¹
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
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, 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 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 OPR 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 Vehicle Miles Traveled-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 its users.
- 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 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 two miles east of SR 99.

⁵ California Department of Transportation. *Vehicle Miles Traveled-Focused Transportation Impact Study Guide*. May 20, 2020.



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 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-3-3	Whenever capital improvements that alter street design are being performed within the public right-of-way, retrofit the right-of-way to enhance multimodal access to the most practical extent possible.
	Policy MOB-3-4	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-3-9	As funds become available, provide for the operation and maintenance of facilities for bicycle and pedestrian networks proportionate to the travel percentage milestone goals for each mode of transportation in the Bicycle, Pedestrian, and Trails Master Plan.
	Policy MOB-3-10	Design and plan roadways such that the safety of the most vulnerable user is considered first using best practices and industry design standards.
	Policy MOB-3-13	Continue to design streets and approve development applications in a manner that reduces high traffic flows and parking demand in residential neighborhoods.
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-4-2 Provide on-site facilities and amenities for active transportation users at public facilities, including bicycle parking and/or storage and shaded seating areas.
 - 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.
 - 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 as defined by the General Plan's Rural Area Community Plan. 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 policy implements the General Plan goals, policies, and actions.

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 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.

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:

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.



- 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 crush load capacity 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.

Vehicle Miles Traveled

As a 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:
 - o Medium Density Residential – 17.9 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.



Transportation Hazards Related to Geometric Design Feature or Incompatible Uses

The Project would have a significant impact related to transportation hazards if implementation of the Project would:

- Result in designs for on-site circulation, access, and parking areas that fail to meet City or industry standard design guidelines.

Emergency Access

The Project would have a significant impact related to emergency access if implementation of the Project would:

- Result in inadequate emergency access.

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 Impact 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 Impact 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. Where applicable, this chapter incorporates the analysis in the Transportation Impact Analysis Report to address potential safety impacts related to transportation.

Further discussion of the methodology used in the Transportation Impact Analysis Report related to the analysis presented herein is included below, and the Transportation Impact Analysis Report is included as Appendix L 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 210 (Single-Family Detached Housing). Application of the foregoing trip generation rates to the 120 single-unit residences yields a total of 1,132 daily trips with 84 trips generated in the AM peak hour and 113 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
Single-Family Detached Housing	210	Daily	9.43	50	50	1,132	566	566
		AM Peak Hour	0.70	25	75	84	21	63
		PM Peak Hour	0.94	63	37	113	71	42

Source: Fehr & Peers, 2025.

Vehicle Miles Traveled Assessment

As part of the Transportation Analysis Report, Fehr & Peers used 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 was 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.

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 a subdivided single-unit residential community in an 11.9-acre portion of the site, as well as associated improvements. Construction activities associated with the Project 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 within anticipated areas of disturbance 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.



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 (ROW) 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, which shall be limited to areas anticipated for disturbance;*
- *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, the impact is less than significant.

As discussed above, the shoulders along Waterman Road, Bond Road, and Elk Grove Boulevard in the vicinity of the site are currently striped as Class II Bicycle Lanes, and the Sheldon Road/Waterman Road intersection includes a recently improved roundabout intersection 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 to the northwest 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. In addition, the BPTMP and the Rural Road Policy and Improvement Standards includes planned Class II Buffered Bicycle lanes along Waterman Road to the north of the site and Class I multi-use path along Sheldon Road between Elk Grove Florin Road and Waterman Road. A planned Class I multi-use path is also included along Waterman Road to the north of the site. The Rural Road Improvement Policy and Standards include planned bike lanes along Sheldon Road within the rural residential area of the City.

Table 4.11-6 summarizes the Bicycle and Pedestrian Streetscore LTS with the addition of the Project on Bond 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 Bond Road and Waterman Road.

The Project would not include components that would adversely affect existing pedestrian or bicycle facilities. The internal Project roadways would include bicycle and pedestrian infrastructure that would comply with the City's Improvement Standards and ensure adequate and safe access for bicyclists and pedestrians within the site. The Project would expand the Waterman Road ROW along the frontage of the property. Such frontage improvements would include a 32.5-foot-wide landscape corridor featuring a 10-foot-wide Class I multi-use path. The Project would also include a 12- to 20-foot-wide multi-use path in the eastern portion of the site that would connect to the existing north/south trail along the west side of the East Park neighborhood. The Project would provide accessible and safe pedestrian connections between proposed



buildings and adjacent streets. As such, the proposed improvements would accommodate the bicycle and pedestrian trips generated by the Project.

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
Bond Road	Waterman Road to Bradshaw Road	4	4	4	4
	Waterman Road to Elk Grove Florin Road	4	4	4	4
Waterman Road	Bond Road to Elk Grove Boulevard	4	4	4	4
	Bond Road to Sheldon Road	3	3	4	4
Source: Fehr & Peers, 2025.					

Based on the above, the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including pedestrian and bicycle facilities during operations. Therefore, a **less-than-significant** impact would occur.

Mitigation Measure(s)

None required.

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. SacRT provides SmarT Ride (now SacRT Flex) and receives funding from state sources (Transit Development Act [TDA] funds), federal sources (Federal Transportation Administration), and through fare collection. State and federal funds are generally allocated based on population, with a portion of TDA funds derived from a 0.25-cent general sales tax and a sales tax on diesel fuel. Therefore, development of the Project would increase funding for transit through such sources due to population growth.

The Federal Transit Administration maintains a database of transit system performance. The City of Elk Grove 2021 Annual Agency Profile identifies that local bus service had an unlinked trips (passenger boardings) per vehicle revenue hour of



2.2, or approximately two passengers per hour.⁸ Generally, such a level of performance is indicative of low demand and productivity. Routes performing at such level would have excess seated and standing capacity. Consequently, the Project would not create demand for public transit services above the maximum passenger capacity of the transit system.

While the demand for public transit services would not result in an increase in ridership above the maximum passenger capacity of the transit system, 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 resulting in 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) *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*

⁸ Federal Transit Administration. *City of Elk Grove 2021 Annual Agency Profile*. Available at: <https://www.transit.dot.gov/ntd/transit-agency-profiles/city-elk-grove>. Accessed July 2025.



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, the Citywide limit of total daily VMT is 8,066,247 VMT under 2020 conditions, and the City's VMT per service population limit for the MDR land use, with the 15 percent reduction in total VMT from the 2020 baseline incorporated, is 17.9 VMT per service population.

The Project's VMT performance was analyzed in a comprehensive manner that considered 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 MDR land use. As shown in the table, the Project would exceed the VMT limit by 2.8 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 Medium Density Residential
VMT Limit	17.9
VMT with Project	18.4
Difference	0.5
<i>Percent Difference</i>	<i>+2.8 Percent</i>
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 0.08 percent.

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.



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	8,078,492
Difference	12,245
<i>Percent Difference</i>	<i>+0.15 Percent</i>
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 April 2024.	
Source: Fehr & Peers, 2025.	

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 2.8 percent reduction in VMT per service population and a 0.15 percent reduction in total VMT within the City Limits. The City of Elk Grove Transportation Analysis Guidelines identifies five categories of VMT reduction:

- Category A – Land Use/Location;
- Category B – Site Enhancement;
- Category C – Transit System Improvements;
- Category D – Commute Trip Reductions; and
- Category E – In-Lieu Fee.

Projects in growth areas must incorporate the highest available reductions through Category A and/or Category B reduction strategy first (as determined by the City) before using strategies in other categories.

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. Prior to occupancy of the residential units, the applicant shall implement TDM strategies to reduce the number of vehicle trips that would be generated by the Project's residential component. Potential TDM strategies range from site design characteristics to on-going parking management and commute travel programs.

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 below potential TDM strategies, including the associated VMT reduction potential, which represents raw



VMT reduction percentages without adjustments for multiplicative dampening and/or category maximums. The following descriptions of the potential TDM strategies are provided for general guidance and are not specific to the Project.

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/acre). 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 net residential density of approximately 10 du/ac in the portion of the project site proposed for residential uses. 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, 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. Implement Conventional Carshare Program (CAPCOA Handbook Strategy T-21-A):

This measure would increase carshare access in the site by deploying conventional carshare vehicles. Examples include programs such as Zipcar, GIG Car Share, Getaround, and Turo. Carsharing offers people convenient access to a vehicle for personal or commuting purposes, which would help to encourage transportation alternatives and reduce vehicle ownership, thereby avoiding VMT.

The Project applicant shall partner with a carshare service provider and ensure that carshare vehicles are available to Project residents prior to occupancy of the proposed residential units.

According to CAPCOA, this strategy would have a maximum reduction potential of 0.15 percent of Project VMT. Quantifying the efficacy of this strategy would be dependent on the number of carshare vehicles deployed in the area. 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 carshare services.



3. Category C – Transit System Improvement

- 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.

- b. **Increase Transit Service Frequency (CAPCOA Handbook Strategy T-26):** This measure would increase transit frequency on one or more transit lines serving the plan/community. Increased transit frequency reduces waiting and overall travel times, which improves the user experience and increases the attractiveness of transit service. This results in a mode shift from single occupancy vehicles to transit, which reduces VMT. This strategy would require coordination with regional transit to determine the appropriate transit frequency given the transit market characteristics of the site. Quantifying the efficacy of this strategy would be dependent on the percent increase in transit frequency and the level of implementation (i.e., the number of transit routes receiving the frequency improvement as a fraction of the total transit routes in the area). According to CAPCOA methodology, this strategy would have a maximum reduction potential of 2.65 percent of Project VMT based on existing Elk Grove transit service performance.

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 systems and to ensure that transit schedules are adequate to accommodate new transit riders generated by the Project.

- c. **Implement Subsidized/Discounted Transit Program (CAPCOA Handbook Strategy T-29):** This measure would provide subsidized or discounted, or free transit passes for Project residents. Reducing the out-of-pocket cost for choosing transit improves the competitiveness of transit against driving, increasing the total number of transit trips and decreasing vehicle trips, resulting in reduced VMT.

According to CAPCOA methodology, this strategy would have a maximum reduction potential of 0.26 percent of Project VMT based on existing Elk Grove transit service performance. Quantifying the efficacy of this strategy would be dependent on the percent reduction in transit fares with this measure and the percent of transit routes that receive reduced fares.

Strategies described in this mitigation measure that would entail physical modifications to the transportation system shall be consistent with City of Elk Grove design standards and are subject to review and approval by the City Engineer.

The Project would be required under Mitigation Measure 4.11-4 to contribute to a CFD, as discussed under Category E, to fund subsidized or discounted, or free transit passes for Project residents.

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 Communities Facilities District (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 CBTP 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 intended to reduce external vehicle trips generated by residents of the Project. However, the effectiveness of the ultimate combination of TDM strategies chosen and implemented cannot be quantified with any certainty 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 measure to reduce VMT impacts to less-than-significant levels, VMT impacts of the Project would be considered *significant and unavoidable*.

- 4.11-4 *Prior to approval of the 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 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 carshare 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



transit services, carshare 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 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 design features, and emergency access/vehicle circulation is provided below.

Geometric Design Features and Incompatible Uses

The Project would construct new internal roadways and provide two connections to Waterman Road with side street stop control. The proposed Waterman Road frontage would expand the existing ROW along the frontage of the property, ranging in width from 72 to 73 feet and including a total of four 11- to 11.5-foot vehicle travel lanes (two in each direction) and one 11-foot median with a portion designed as a two-way left turn lane, a five-foot-wide shoulder, and an attached three-foot-wide curb and gutter. In addition, the Project would require approval of a Design Exception to eliminate the 122-foot and 166-foot stubs at the terminus of Street A and Street C. Instead, a fire access gate would be provided between the end of each stub and the open-space multi-use trail to provide an internal pull through for fire equipment. However, the Project would not include development of new off-site roadways.

Fehr & Peers conducted a review of the Project access and on- and off-site safety considerations, pursuant to the City of Elk Grove Improvement Standards. The preliminary layouts for Waterman Road include ultimate and interim geometrics for Waterman Road along the project frontage. Based on the geometrics review, the ultimate layout would include a center turn lane and two through lanes. A 100-foot striped southbound left-turn lane would be provided at each project access intersection. The interim layout would include a center turn lane and one through lane. A 100-foot southbound left-turn lane would be provided at the southern driveway, but not at the northern driveway. At the northern driveway, a striped median would be provided as the frontage improvements transition to conform with the existing cross section of Waterman Road north of the project, which would prohibit the southbound left-turn movement under interim conditions.

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 improvements are designed to meet or exceed uniform levels of sound engineering practice.^{9,10} The

⁹ City of Elk Grove. *Improvement Standards*. Amended May 28, 2024.

¹⁰ City of Elk Grove. *Citywide Design Guidelines*. October 2021.



design criteria address speed, sight distance, minimum and maximum roadway grade, minimum curve radius, and lighting. As part of general engineering practice, which would be ensured by the City's permitting review and approval process, 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. Pursuant to the Design Exception to eliminate the 122-foot and 166-foot stubs at the terminus of Street A and Street C, residents and visitors would easily be able to turn around using the driveway cut at the end of each stub. Fire apparatus turnaround would be addressed by the fire access gates provided between the end of each stub and the open-space multi-use trail. Fire Equipment would be able to pull through and exit to the other stub street without the need to turn around. The Project would be subject to review and approval by the City, including the Cosumnes Community Services District (CCSD) Fire Department, 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.

The proposed access roadways would be aligned with existing and planned access along Waterman Road. Each access roadway would be 44 feet wide, consistent with City standards for minor residential streets, and spaced approximately 950 feet apart. Sight distance at all driveways was evaluated by Fehr & Peers, relative to the minimum sight distance in Section 4.8 Sight Distance and Visibility Easements at Intersections of the Improvement Standards, and the standard drawings ST-26.1 and ST-26.2, and were determined to be adequate. A proposed two-way left-turn lane on Waterman Road would accommodate turning movements to and from the site and maintain efficient traffic flow. According to Fehr & Peers, operations analysis indicate that the maximum southbound queue length on Waterman Road at Elk Grove Boulevard during the AM peak hour (437 feet) would be shorter than the distance between Rancho Drive and Elk Grove Boulevard, indicating conflict between the queues on the arterial and the driveways would not occur. The Project would not alter the existing transportation network nor increase hazards due to a geometrical design feature. Therefore, the proposed on-site circulation is not anticipated to result in any significant operational issues on City streets.

Based on the above, 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 two entries at Waterman Road. The entries would also serve as primary emergency access routes for the residential development.



The proposed site access driveways would be aligned with the existing/future planned driveways, maintaining consistency with current traffic patterns.

The CCSD Fire Department provides fire and emergency medical service to the City of Elk Grove. The nearest CCSD Fire Department fire station is Station 73, located approximately 1.3 miles from the site. The CCSD Fire Department 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. For example, as discussed above, pursuant to the Design Exception to eliminate the 122-foot and 166-foot stubs at the terminus of Street A and Street C, fire apparatus turnaround would be addressed by the fire access gates provided between the end of each stub and the open-space multi-use trail. Each subdivision and building permit application would be subject to review and approval by the City and CCSD Fire Department to ensure specific roadway design and access standards are met. The CCSD Fire Department 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, the 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, the Project would not be



anticipated to result in significantly more intense transportation impacts than what was previously anticipated for the Project, and such impacts are not discussed further.

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.¹¹ 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.

¹¹ 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 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 to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. The Cosumnes River, Cosumnes River Preserve, and Stone Lakes National Wildlife Refuge, comprise the primary scenic resources of the City. However, the City's General Plan EIR does not identify officially designated scenic vistas within the City.

The site's visual setting primarily consists of scattered vegetation bordered by suburban development and utility infrastructure elements. The site is generally surrounded by residential uses to the east, west, and south, while vacant land is located to the north of the site. Hilltop Cemetery is also located to the west of the site. As such, the scenic resources identified in the City's General Plan EIR are not located in the Project vicinity and development of the Project would not obstruct public views of any such resources. Therefore, the Project would not have a substantial adverse effect on a designated scenic vista, and no impact would occur.

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. The closest officially designated scenic highway consists of a portion of State Route (SR) 160 located approximately 8.61 miles west of the site and is not visible from the site.¹ Therefore, although the site does contain a number of non-native trees throughout the site and along the site boundaries, because officially designated State scenic

¹ California Department of Transportation. *California State Scenic Highway System Map*. Available at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed May 2025.



highways are not located near the site, development of the Project would not substantially damage scenic resources within a State scenic highway and no impact would occur.

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 Public Resources Code [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; or
- 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 conversion of forest land to non-forest use.

According to the California Department of Conservation's (DOC's) California Important Farmland Finder, the site is designated as "Grazing Land," which is defined as "Land on which the existing vegetation is suited to the grazing of livestock."² Because the site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and is not currently used for agricultural purposes, implementation of the Project would not result in the conversion of Farmland to non-agricultural uses. In addition, the site is not under a Williamson Act contract and is not designated or zoned for agricultural uses. 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, the proposed utility improvements would occur either in existing roadway rights-of-way (ROWS) or in other previously disturbed areas.

Based on the above, implementation of the Project would not result in conversion of Farmland to non-agricultural use, 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.

² California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservancy.ca.gov/DLRP/CIFF/>. Accessed May 2025.



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, and northwestern pond turtle. 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). The Project would include connections to the existing sewer line to the southwest of the site in Waterman Road, which would discharge to an existing SacSewer gravity sewer network. Thus, the construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the Project, and 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 it create a significant hazard to the public or the environment;
- For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area; and
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires.

The nearest school relative to the site is Edna Batey Elementary School, which is located approximately 0.35-mile to the east 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.,³ the site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and impacts related to such would not occur. Therefore, the Project would not create a significant hazard to the public or the environment associated with being located on such a site.

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 airport relative to the site is Sky Way Estates Airport-CL04, which is located approximately 6.23 miles to the east 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 FHSZ to the site is located approximately 5.07 miles to the north of the site. 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.

5.7 HYDROLOGY AND WATER QUALITY

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue areas:

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- 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.

As discussed in Chapter 4.7, Hydrology and Water Quality, of this EIR, the site is located within an area designated by the Federal Emergency Management Agency (FEMA) as an Area of Minimal Flood Hazard (Zone X), which is not considered a Special Flood Hazard Area (SFHA). Thus, the existing on-site conditions limit the potential for on-site flooding to occur. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The site is located approximately 91 miles from the nearest coastline and would not be potentially affected by flooding risks associated with tsunamis. Seiches do not pose a risk to the Project, as the site is not located in the vicinity of any large, closed bodies of water. Considering that the site is not located within a flood hazard zone and would not be at risk for inundation by tsunamis or seiches, the Project would not have the potential to risk the release of pollutants due to inundation.

As discussed above, the site is not located in a flood hazard zone. Furthermore, the site does not include any streams or rivers. As such, the potential for on-site streams, rivers, or existing drainage patterns to be altered through the addition of impervious surfaces in a manner which would impede or redirect flood flows does not exist.

³ Pinnacle Environmental, Inc. *Phase I Environmental Site Assessment*. June 10, 2024.



5.8 LAND USE AND PLANNING/POPULATION AND HOUSING

Consistent with Appendix G of the CEQA Guidelines, the Project was determined to have no impact with regard to the following issue areas:

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere

The site is currently vacant and does not include existing residential units. Therefore, the Project would not displace any people or housing.

5.9 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:

- 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.

5.10 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 6.23 miles east of the site. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels associated with airports.

5.11 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:



- o Substantially impair an adopted emergency response plan or emergency evacuation plan;
- o 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;
- o 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
- o 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 FHSZ to the site is located approximately five miles to the north, 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 within 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 should not be assumed to be necessarily beneficial, detrimental, or of little significance to the environment. This analysis examines the following potential growth-inducing impacts related to implementation of the Summer Flats Project ("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 120 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 371 new residents. The site is located within the Eastern Elk Grove Community Plan area of the General Plan. A portion of the western side of the site is designated as Low Density Residential (LDR) and the remainder of the site is designated as Resource Management and Conservation (RMC). The SACOG 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) identifies the Eastern Elk Grove Community Plan as an Established Community, which are typically areas made up of existing low- to medium-density residential neighborhoods, office and industrial parks, or commercial centers. Therefore, the development of the site with urban uses has been previously anticipated. The Project would



result in 91 additional residential units and 281 additional residents as compared to what could currently occur with buildout of the site pursuant to the existing land use and zoning designations. Thus, the population growth associated the Project would be greater than what was anticipated for the site in the General Plan EIR. However, the 120 residential units associated with the Project would not exceed the anticipated housing unit growth from 2016 to 2040 in Established Communities, pursuant to the 2020 MTP/SCS, nor the maximum buildout of 4,378 dwelling units anticipated in the General Plan for the East Elk Grove sub-area.

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 residential community. New jobs generated by the Project 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. Consequently, as discussed in further detail under Impact 4.8-3 within the Land Use and Planning/Population and Housing chapter of this EIR, while the Project would result in population growth within the City of Elk Grove, population growth resulting from the Project would be within the Sacramento Area Council of Governments (SACOG) and City of Elk Grove growth estimates for the project area. Thus, the Project would not induce substantial unplanned population growth, and a less-than-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, water services would be provided by the Sacramento County Water Agency (SCWA) and Elk Grove Water District (EGWD) through new connections to the existing water system in the site vicinity. Similarly, 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 proposed water and wastewater improvements for the Project would be sized to serve only the Project and would be financed by the Project applicant. In addition, the Project would not require the construction of any new or expanded infrastructure beyond the improvements necessary to serve the Project. Consequently, the construction of utilities infrastructure would not be anticipated to result in elimination of obstacles to population growth in the area. Because implementation of the aforementioned improvements would be developed to serve only the Project, such improvements would not be considered to eliminate obstacles to growth in a manner that would encourage previously unplanned growth.

Affect Service Levels, Facility Capacity, or Infrastructure Demand

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, attributable to the Project would not necessitate the construction of new or expanded service facilities that could cause significant environmental impacts. 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 EchoWater Resource Recovery Facility (EchoWater Facility), and adequate transmission capacity exists for the Project's sanitary sewer flows. Furthermore, new connections to existing water supply infrastructure provided by the EGWD would be sufficiently sized to accommodate the increased demand from the Project, and the project would not require the construction of new or expanded water conveyance infrastructure.

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, as discussed in Chapter 4.7, Hydrology and Water Quality, of this EIR, 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.

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 the 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 Villas 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 use, thus precluding alternative land uses in the future; and
- 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 residential uses.

If the City of Elk Grove City Council chooses to approve the Project, the Council will be concluding that the irreversible environmental changes, and the natural resource consumption that accompanies them, are justified in light of the economic, social, or other benefits that the Council might invoke in approving the Project. For example, the Council might conclude that the economic and social benefits created by 120 new single-family residences justify the irretrievable loss of environmental and natural resources.

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.

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 General Plan/East Elk Grove Community Plan Amendments and a 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.



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 Medium Density Residential (MDR) land use is 17.9 VMT. As shown in Table 4.11-4 of Chapter 4.11, the Project's VMT per service population for the MDR land use would be 18.4, which would exceed the VMT limit by 2.8 percent. Furthermore, as shown in Table 4.11-5 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 0.08 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 Measures 4.11-4(a) and 4.11-4(b) would reduce VMT associated with the Project by implementing TDM strategies to reduce external vehicle trips generated by residents of the Project. TMD strategies for the Project include, but are not limited to, increases in residential density, implementation of a conventional carshare program, transit system improvements, community-based travel planning, and payment of in-lieu fees. However, the effectiveness of the TDM strategies cannot be quantified with any certainty at this time and subsequent vehicle trip reduction effects cannot be guaranteed. Furthermore, 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 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 proposed 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 proposed 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 proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed 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 thoughtfully develop an underutilized infill property while recognizing and respecting its physical constraints and opportunities.
- 2) To develop the site in a mix of Medium Density Residential (MDR) and Resource Management and Conservation (RMC) land uses.
- 3) To provide for the development of for-sale single-unit residences at a density that is approximately 8-12 dwelling units per acre on the MDR-designated portion of the site.
- 4) To provide for open space uses, such as the restoration, creation, and preservation of seasonal wetlands habitat and stormwater detention areas to serve the Project, on the RMC-designated portion of the site, which is not feasible for more intensive development due to presence of biological resources and overhead power lines.
- 5) To help the City of Elk Grove meet its need for "Missing Middle" housing by providing attainable single-unit housing for middle-income households, including existing residents and public and private-sector employees who work in the City, who are seeking to purchase a home in Elk Grove.
- 6) To provide approximately 120 clustered single-unit detached residences on the site. (For an example of clustered single-unit detached housing, see Figure 34 of the City of Elk



Grove's 2020 report entitled "Housing For Middle-Income Households – An Economic Analysis of Missing-Middle Housing.")

- 7) To develop residential units in close proximity to commercial uses, parks, schools and Old Town Elk Grove to make bicycle and pedestrian trips a feasible and likely alternative to automobile trips.
- 8) To promote the use of non-automotive forms of travel by providing connections to existing and planned bicycle and pedestrian facilities in the vicinity of the site consistent with the City's Bicycle, Pedestrian, and Trails Master Plan.
- 9) To promote the use of public transit by building residences within a short walking distance of, and connecting pedestrian trails with direct access to, existing transit services providing regional commutes (E-Tran 16 to downtown Sacramento and Route 116 to the Cosumnes River College Light Rail Station) to reduce single-occupancy vehicular trips.

Impacts Identified in the EIR

In addition to attaining the majority of project objectives, reasonable alternatives to 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 7-3 at the end of this chapter; the significant and unavoidable impacts identified in the EIR are also presented below.

- **Air Quality, GHG Emissions, and Energy.** The EIR determined that 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, and the Project's incremental contribution to this significant cumulative impact would be cumulatively considerable and significant and unavoidable.
- **Transportation.** The EIR determined that the Project would result in a significant and unavoidable impact related to conflicting or being inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), which is related to VMT.

7.3 SELECTION OF ALTERNATIVES

The requirement that an EIR evaluate alternatives to the proposed project or alternatives to the location of the proposed 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 proposed 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, the 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 was 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 majority of project objectives due to a number of the project objectives being specific to the site location. For example, Objective #1 is focused on developing an underutilized infill property; Objective #4 is focused on incorporating the seasonal wetland habitat into open space area; and Objectives #7 and #9 are focused on developing residential uses in proximity to existing commercial uses, parks, schools, Old Town Elk Grove, and transit services. 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. An Off-Site Alternative would have the same type and intensity of uses as the Project.

As shown in Table 7-1, the City identified three vacant infill parcels suitable for a similar type and intensity of residential development. However, as shown in the table, the Elk Grove General Plan designates all three sites as High Density Residential (HDR), which allows for a residential density



between 15.1 and 40.0 dwelling units per acre (du/ac). Senate Bill (SB) 330 prohibits local jurisdictions from redesignating land where housing is an allowable use by changing or applying general plan, specific plan, or zoning criteria that would reduce the intensity of land use below that which was allowable on January 1, 2018. The “No Net Loss” exception allows upzoning of an equivalent amount elsewhere to compensate for the lost residential capacity. As a result, other undeveloped land within the City would be required to undergo a General Plan Amendment to change the land use designation to either residential, or a higher density residential land use designation than the existing designation, to account for the loss of potential on-site housing.

Table 7-1 Vacant Off-Site Parcels					
Parcel	Accessor's Parcel Number	Address	Acreage	General Plan Designation	Zoning
1	132-0050-182	Southwest corner of Poppy Ridge Road/Big Horn Boulevard intersection	13.32	HDR	High Density Residential – Maximum 30 Dwelling Units per Acre (RD-30)
2	132-0290-021	8668 Poppy Ridge Road	13	HDR	Southeast Policy Area Special Planning Area (SEPA SPA)
3	116-0011-004	Northwest corner of Bruceville Road/Big Horn Boulevard intersection	13	HDR	RD-30

In addition, the City identified one vacant parcel designated as Low Density Residential (LDR) to the east of Bruceville Road, which could accommodate the residential uses associated with the Project. However, the parcel has been previously approved for development that is currently under review. As such, the City has not identified a suitable off-site parcel that could accommodate the Project, and an Off-Site Alternative would be infeasible.

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/Zoning) Alternative;
- Increased Density Alternative; and
- Clustered Development 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 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 such as those listed above. Because significant impacts related to Aesthetics, Land Use and Planning/Population and Housing, or Public Services



and Utilities were not identified, and mitigation was not required, a discussion of such impacts for each Alternative is not included herein. 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 7-3 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 would not be developed. As described in this EIR, the site currently consists of flat to



gently sloping grassland, and aboveground distribution power lines and utility poles, as well as barbed wire fencing, exist along Waterman Road, parallel to the site's western boundary. Three easements containing transmission towers, utility poles, and overhead power transmission lines are generally located within the eastern half of the site. A number of non-native trees are located throughout the site and along the site boundaries, the majority of which are located beneath the on-site powerline towers. Seasonal wetlands, seasonal wetland swales, and vernal pools are located throughout the site. Because residential uses would not be developed with the No Project (No Build) Alternative, which is the main focus of Objectives #1-3 and #5-9, the Alternative would not meet the majority of the project objectives. However, the Alternative would partially satisfy Objective #4 due to the preservation of natural habitat and wetland resources throughout the site.

Air Quality, Greenhouse Gas Emissions, and Energy

Because the No Project (No Build) Alternative would not involve development of the site, consistency with the Sacramento Metropolitan Air Quality Management District (SMAQMD) Best Management Practices (BMPs) or the City's Climate Action Plan (CAP) measures would not be required for the Alternative, and Mitigation Measures 4.2-7(a), (b), and (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 brachiopod 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 (CFGF), or roosting bats. In addition, the Alternative would not have a substantial adverse effect on federal or State protected wetlands. As such, 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), 4.3-10(a), and 4.3-10(b) would not 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 4.4-2(a) through 4.4-2(e), and 4.4-3 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 located on expansive soils, and Mitigation Measures 4.5-3, requiring submittal of a design-level geotechnical engineering report, 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 water well on-site would not be required to be abandoned in accordance with current regulatory guidelines. As such, Mitigation Measure 4.6-2 would not be required. While the water well would remain on-site and would not be properly abandoned, the well was not determined to represent a Recognized Environmental Condition (REC). Therefore, 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. Thus, Mitigation Measures 4.7-1, 4.7-2(a), and 4.7-2(b) would not be required. Overall, no impacts related to Hydrology and Water Quality 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 result in construction impacts related to noise generation. Therefore, Mitigation Measure 4.9-1 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 traffic on local roadways or include development that could conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit facilities. Thus, Mitigation Measures 4.11-1, 4.11-3(a), and 4.11-3(b) would not be required. In addition, the Alternative would not result in the generation of VMT, and, therefore, would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Mitigation Measure 4.11-4 would not be required. Overall, no impacts related to Transportation would occur under the No Project (No Build) Alternative.

No Project (Buildout Pursuant to General Plan/Zoning) Alternative

The No Project (Buildout Pursuant to General Plan/Zoning) Alternative would consist of buildout of the site according to the current City of Elk Grove General Plan land use designations and zoning. The Elk Grove General Plan designates a portion of the western side of the site (APNs 127-0150-001 and -002) as LDR and the remainder of the site is designated RMC. Similarly, a portion of the western side of the site is zoned Low Density Residential – Maximum Four Dwelling Units per Acre (RD-4) and the remainder of the site is zoned Open Space (O). Table 7-2 provides a summary of the existing land uses that could be developed under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative as compared to the Project.

As shown in Table 7-2, the Alternative would result in 7.3 acres of LDR/RD-4 uses and 19.6 acres of RMC/O uses. The LDR land use designation provides for single-unit detached residential development. Lot sizes typically range from 6,000 to 10,000 square feet (sf). The LDR land use designation allows for a residential density between 4.1 du/ac to seven du/ac. However, the RD-4 district is intended for detached single- and two-unit residences up to a maximum density of four du/ac. Pursuant to the residential zoning district for the site and assuming a maximum density of four du/ac, the Alternative could result in a maximum of 29 residential units. Because the number of residential units to be developed under the Alternative would remain consistent with the number of units allocated for the site in the General Plan for the total East Elk Grove Sub-



Area, the Alternative would not require a General Plan/Eastern Elk Grove Community Plan Amendment to increase the maximum residential buildout for the East Elk Grove Sub-Area.

Table 7-2 Land Use Comparison – No Project (Buildout Pursuant to General Plan/Zoning) Alternative		
Land Use/Zoning	Project (Acres)	Alternative (Acres)
MDR/Medium Density Residential – Maximum 12 Dwelling Units per Acre (RD-12)	11.9	--
LDR/RD-4	--	7.3
RMC/O	14.7	19.6
Major Right-of-Way	1.0	0.7
Total Net Acreage	27.6	27.6

The RMC designation provides for passive open spaces uses, including lands used for habitat mitigation, wetland protection, and floodways, while the O zoning district is applied to lands owned by public and private entities that have been reserved for open space uses such as landscape corridors, habitat mitigation, wetlands, wildlife habitat and corridors, lakes, trails, and similar uses. As such, under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative, a maximum of 29 residential units could be developed within the 27.6-acre site, as well as 19.6 acres of open space. In comparison, the Project would include a total of 120 single-unit residences and 14.7 acres of open space.

In addition, because the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would retain the existing General Plan land use designations, residential uses would be located in the western portion of the site. The eastern and southern portions of the site, which contain the majority of on-site wetland resources, would remain as open space, consistent with the existing RMC designation, which is intended to preserve the on-site aquatic resources. Therefore, the Alternative would avoid impacts to the on-site wetland resources and vernal pools.

Because the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include development of the site with residential uses, avoid wetland resources, provide open space and circulation improvements, and would have access to existing open space, trails, and commercial centers, Objectives #1, #4, #7, #8, and #9 would be met. However, Objectives #2, #3, and #6 would not be satisfied, given that the alternative would not include MDR uses and would not include 120 single-unit residences. Furthermore, because the Alternative would include development of LDR units, which would be larger and less affordable by design as compared to the MDR units under the proposed project, the Alternative would be less successful in meeting Objective #5 related to providing attainable single-unit residential housing for middle-income households.

Air Quality, Greenhouse Gas Emissions, and Energy

While the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include development of the site with similar uses as the Project, the Alternative would include the development of at least 91 fewer dwelling units than currently proposed. Nonetheless, Mitigation Measures 4.2-7(a) and 4.2-7(b) would still be required under the Alternative to ensure compliance with SMAQMD BMP-1 and BMP-2 and the applicable measures included within the City's CAP. With respect to consistency with SMAQMD BMP-3 and Measure TACM-6 of the City of Elk Grove CAP, as discussed below under 'Transportation,' the Alternative would still result in a significant



and unavoidable impact related to VMT. As such, the Alternative would generally not comply 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 Transportation Demand Management (TDM) strategies included in Mitigation Measure 4.11-4, required by Mitigation Measure 4.2-7(c), and the ability of the mitigation measures to reduce GHG emissions to below the 2050 MTCO₂e per capita goals established by the CAP and the Climate Compass, 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/Zoning) Alternative would be similar to the Project.

Biological Resources

Similar to the Project, the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include ground-disturbing activities on the site and, thus, would have the potential to impact special-status plants, Crotch's bumble bee, monarch butterfly, nesting birds and raptors protected under the MBTA and CFGC, or roosting bats. Thus, Mitigation Measures 4.3-1(a), 4.3-1(b), 4.3-2, 4.3-4, and 4.3-7(a) through (c) would still be required. However, because the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would remain consistent with the existing RMC land use designation and O zoning, the eastern and southern portions of the site, which contain the majority of on-site wetland resources, would remain as open space. Therefore, the Alternative would avoid impacts to the on-site wetland resources and vernal pools, and Mitigation Measures 4.3-10(a) and 4.3-10(b) would not be required under the Alternative. Similarly, the Alternative would avoid impacts to special-status brachiopod species, western spadefoot, northwestern pond turtle, and Mitigation Measures 4.3-3, 4.3-5, and 4.3-4.3-6 would not be required under the Alternative. Therefore, overall impacts to Biological Resources would be fewer under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative compared to the Project.

Cultural and Tribal Cultural Resources

The No Project (Buildout Pursuant to General Plan/Zoning) Alternative would occur in a similar development footprint as the Project. Similar to the Project, the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would result in on-site disturbance to accommodate new development. Therefore, Mitigation Measures 4.4-2(a) through 4.4-2(e), and 4.4-3 would still apply to the No Project (Buildout Pursuant to General Plan/Zoning) 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 similar under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative compared to the Project.

Geology and Soils

As noted above, the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include a similar 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 similar to the Project, and Mitigation Measure 4.5-4 would still be required. In addition, because development would occur in a similar footprint as the Project, the Alternative would have the potential to be located on expansive soil, and Mitigation Measures 4.5-3, requiring submittal of a design-level geotechnical engineering report, would still be required. Overall, impacts related to Geology and Soils under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would be similar to the Project.



Hazards and Hazardous Materials

As previously discussed, the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would entail buildout of the site with LDR and RMC uses. The Alternative would therefore be required to abandon the on-site water well prior to construction activities in accordance with current regulatory guidelines. As such, consistent with the recommendations of the Phase I Environmental Site Assessment (ESA) prepared for the Project, Mitigation Measure 4.6-2 would still be required. Overall, impacts related to Hazards and Hazardous Materials under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would be similar to the Project.

Hydrology and Water Quality

Given that the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include a similar area of disturbance compared to the Project, the potential for the Alternative to result in construction and operational impacts related to water quality would also be the same. Therefore, Mitigation Measures 4.7-1, 4.7-2(a), and 4.7-2(b) would still be required, and impacts related to Hydrology and Water Quality under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would be similar to the Project.

Noise

Similar to the Project, the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include the construction of residential uses within the site in close proximity to existing residential receptors. Thus, the potential to result in a substantial temporary increase during construction would be the same, and Mitigation Measure 4.9-1, which reduces impacts associated with a temporary increase in ambient noise levels, would still be required. Overall, impacts related to Noise under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would be similar to the Project.

Transportation

As previously discussed, the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include buildout of the site with LDR and RMC uses. 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. Because the Alternative would still result in on-site development and increase transit ridership and demand for transit stops near the site, Mitigation Measures 4.11-3(a) and 4.11-3(b) would also still be required to reduce potential conflicts with adopted policies, plans, or programs supporting transit facilities to a less-than-significant level.

As discussed above, the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include the development of 91 fewer dwelling units as compared to the Project. According to the Governor's Office of Land Use and Climate Innovation (LCI) (formerly known as the Office of Planning and Research [OPR]) Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory), one method of reducing residential VMT is to increase residential density. The No Project (Buildout Pursuant to General Plan/Zoning) Alternative would include fewer residential units than the Project and, thus, would be built out at a lower residential density as compared to the Project. The reduced density under this Alternative would result in increased VMT per service population and total daily VMT generated by the City Limits as compared to the Project. Therefore, even with implementation of Mitigation Measure 4.11-4, the Alternative would result in a greater impact related to VMT (i.e., conflicting with CEQA Guidelines Section 15064.3, subdivision [b]), and the impact would remain significant and unavoidable, consistent with the conclusions of the City of Elk Grove General Plan EIR. Overall, impacts related to Transportation



under the No Project (Buildout Pursuant to General Plan/Zoning) Alternative would be similar to 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 2.8 percent reduction in VMT per service population. By increasing the density by 0.5 dwelling unit per acre (du/ac) above 9.1 du/ac, a reduction of approximately one percent in residential VMT can be achieved, up to a maximum reduction of 30 percent. As such, in order to reach a 2.8 percent reduction in VMT per service population, the Increased Density Alternative would require an approximately 1.4 du/ac increase in residential density within the proposed 11.9-acre residential portion of the site, for a total residential density of approximately 11.48 du/ac. The increase in density would result in a total of 136 units within the 11.9-acre residential portion of the site, which would be an increase in 16 units as compared to the Project. The remaining site acreage would be left as undeveloped open space or serve as a water quality/detention basin. As such, while the development footprint under the Increased Density Alternative would be similar to the Project, the Alternative would result in a slightly higher residential density as compared to the Project in order to reduce impacts related to VMT to a less-than-significant level. However, the residential density of approximately 11.8 would remain consistent with the proposed MDR land use designation, which allows for a maximum residential density of 15.0 du/ac.

The Alternative would be capable of fully meeting all project objectives, as the Alternative would provide a MDR development in the vicinity of existing commercial centers, parks, and transit options; contribute to the diversity of single-unit detached housing options in the area, provide access to open space and trail amenities; provide circulation improvements; and would be developed within the same footprint as the Project.

Air Quality, Greenhouse Gas Emissions, and Energy

While the Increased Density Alternative would include development of the site with similar uses as the Project, the Alternative would include the development of 16 additional dwelling units than currently proposed. Mitigation Measures 4.2-7(a) and 4.2-7(b) would still be required under the Alternative to ensure compliance with SMAQMD BMP-1 and BMP-2 and the applicable measures included within the City's CAP. With respect to consistency with SMAQMD BMP-3 and Measure TACM-6 of the City of Elk Grove CAP, because the significant and unavoidable impact associated with VMT would be eliminated under the Alternative, Mitigation Measure 4.2-7(c) would not be required. Nonetheless, similar to the Project, due to the uncertainty related to the ability of the mitigation measures to reduce GHG emissions to below the 2050 MTCO₂e per capita goals established by the CAP and the Climate Compass, the Alternative's impact related to generating 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 would remain cumulatively considerable and significant and unavoidable. Nonetheless, overall, impacts related to Air Quality, GHG Emissions, and Energy under the Increased Density Alternative would be fewer as compared to the Project.

Biological Resources

Similar to the Project, the Increased Density Alternative would include ground-disturbing activities within the same development footprint and, thus, would have the potential to impact special-status plants, Crotch's bumble bee, special-status brachiopod species, monarch butterfly, western spadefoot, northwestern pond turtle, nesting birds and raptors protected under the MBTA and



CFGF, or roosting bats. Thus, 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, and 4.3-7(a) through (c) would still be required. In addition, the Alternative would have the same potential to result in a substantial adverse effect on federal or State protected wetlands. Therefore, the Alternative would not avoid impacts to the on-site wetland resources and vernal pools, and Mitigation Measures 4.3-10(a) and 4.3-10(b) would still be required under the Alternative. Therefore, overall impacts to Biological Resources would be similar under the Increased Density Alternative compared to the Project.

Cultural and Tribal Cultural Resources

The Increased Density Alternative would occur within the same development footprint as the Project. Similar to the Project, the Increased Density Alternative would result in on-site disturbance to accommodate new development. Therefore, Mitigation Measures 4.4-2(a) through 4.4-2(e), and 4.4-3 would still apply to the Increased Density 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 similar under the Increased Density Alternative compared to the Project.

Geology and Soils

As noted above, the Increased Density Alternative would include the same 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 similar to the Project, and Mitigation Measure 4.5-4 would still be required. In addition, because development would occur in the same footprint as the Project, the Alternative would have the potential to be located on expansive soil, and Mitigation Measures 4.5-3, requiring submittal of a design-level geotechnical engineering report, would still be required. Overall, impacts related to Geology and Soils under the Increased Density Alternative would be similar to the Project.

Hazards and Hazardous Materials

As previously discussed, the Increased Density Alternative would entail buildout of residential uses and preservation of open space areas within the same development footprint as the Project. The Alternative would therefore be required to abandon the on-site water well prior to construction activities in accordance with current regulatory guidelines. As such, consistent with the recommendations of the Phase I ESA prepared for the Project, Mitigation Measure 4.6-2 would still be required. Overall, impacts related to Hazards and Hazardous Materials under the Increased Density Alternative would be similar to the Project.

Hydrology and Water Quality

Given that the Increased Density Alternative would include the same area of disturbance compared to the Project, the potential for the Alternative to result in construction and operational impacts related to water quality would also be the same. Therefore, Mitigation Measures 4.7-1, 4.7-2(a), and 4.7-2(b) would still be required, and impacts related to Hydrology and Water Quality under the Increased Density Alternative would be similar to the Project.

Noise

Similar to the Project, the Increased Density Alternative would include the construction of residential uses within the same development footprint in close proximity to existing residential receptors. Thus, the potential to result in a substantial temporary increase during construction would be the same, and Mitigation Measure 4.9-1, which reduces impacts associated with a



temporary increase in ambient noise levels, would still be required. Overall, impacts related to Noise under the Increased Density Alternative would be similar to the Project.

Transportation

The Increased Density Alternative would include buildout of the site with the same uses as the Project with an increase in 16 units. 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. Because the Alternative would still result in on-site development and increase transit ridership and demand for transit stops near the Project, Mitigation Measures 4.11-3(a) and 4.11-3(b) would also still be required to reduce potential conflicts with adopted policies, plans, or programs supporting transit facilities to a less-than-significant level.

As previously discussed, the Increased Density Alternative has been specifically formulated to avoid the Project's significant and unavoidable VMT impacts. The 136-unit count was selected for the Alternative in order to reduce VMT per service population to below the threshold of 17.9 for MDR uses. The VMT per service population associated with the Project was calculated to be 18.4. The residential density under the Increased Density Alternative would increase to 11.48 du/ac, which would reduce residential VMT per capita by 2.8 percent. Therefore, the VMT per service population under the Increased Density Alternative would be 17.9, which would meet the applicable threshold. The significant and unavoidable impact identified for the Project related to conflicting or being inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) would not occur under the Increased Density Alternative, and implementation of Mitigation Measure 4.11-4 would not be required. Overall, impacts related to Transportation under the Increased Density Alternative would be fewer than the Project.

Clustered Development Alternative

The Clustered Development 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. Unlike the Project, the Clustered Development Alternative would retain the existing General Plan land use designation of RMC on-site, which is intended to preserve the on-site aquatic resources. Similar to the Project, the existing RMC area would retain the existing transmission towers and overhead power lines and contain the proposed water quality/detention basin. The Clustered Development Alternative would include the same number of residential units as the Project outside of the existing RMC land use designation, clustered in the western portion of the site. As such, the Clustered Development Alternative would include a total of 120 residential units within the 7.3-acre portion outside of the existing RMC area, for a total residential density of approximately 16.4 du/ac. Such residential density would be consistent with the HDR land use designation, which is generally characterized by attached homes, townhomes, garden apartments, and apartments. As such, the Alternative would require a General Plan Amendment to designate the site from the existing LDR designation to HDR.

Because the Clustered Development Alternative would include residential development in the vicinity of existing commercial centers, parks, and transit options; provide access to open space and trail amenities; provide circulation improvements; avoid impacts to wetland resources; and provide ample open space, Objectives #1, #4, #7, #8, and #9 would be fully satisfied. However, the Alternative would not be capable of meeting Objectives #2, #3, #5, and #6, as the Alternative would not include MDR development and would not include single-unit detached residences.



Air Quality, Greenhouse Gas Emissions, and Energy

The Clustered Development Alternative would include development of the site with HDR uses within the 7.3-acre portion outside of the existing RMC area. The Alternative would include the same number of residential units as currently proposed at an increased density of 16.4 du/ac. Mitigation Measures 4.2-7(a) and 4.2-7(b) would still be required under the Clustered Development Alternative to ensure compliance with SMAQMD BMP-1 and BMP-2 and the applicable measures included within the City's CAP. With respect to consistency with SMAQMD BMP-3 and Measure TACM-6 of the City of Elk Grove CAP, because the significant and unavoidable impact associated with VMT would be eliminated under the Alternative, Mitigation Measure 4.2-7(c) would not be required. Nonetheless, similar to the Project, due to the uncertainty related to the ability of the mitigation measures to reduce GHG emissions to below the 2050 MTCO₂e per capita goals established by the CAP and the Climate Compass, the Alternative's impact related to generating 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 would remain cumulatively considerable and significant and unavoidable. Nonetheless, overall, impacts related to Air Quality, GHG Emissions, and Energy under the Clustered Development Alternative would be fewer as compared to the Project.

Biological Resources

Similar to the Project, the Clustered Development Alternative would include ground-disturbing activities on the site and, thus, would have the potential to impact special-status plants, Crotch's bumble bee, monarch butterfly, nesting birds and raptors protected under the MBTA and CFGC, or roosting bats. Thus, Mitigation Measures 4.3-1(a), 4.3-1(b), 4.3-2, 4.3-4, and 4.3-7(a) through (c) would still be required. However, because the Clustered Development Alternative would remain consistent with the existing RMC land use designation and O zoning, the eastern and southern portions of the site, which contain the majority of on-site wetland resources, would remain as open space. Therefore, the Alternative would avoid impacts to the on-site wetland resources and vernal pools, and Mitigation Measures 4.3-10(a) and 4.3-10(b) would not be required under the Alternative. Similarly, the Alternative would avoid impacts to special-status brachiopod species, western spadefoot, northwestern pond turtle, and Mitigation Measures 4.3-3, 4.3-5, and 4.3-4.3-6 would not be required under the Alternative. Therefore, overall impacts to Biological Resources would be fewer under the Clustered Development Alternative compared to the Project.

Cultural and Tribal Cultural Resources

The Clustered Development Alternative would occur in a similar development footprint as the Project. Similar to the Project, the Clustered Development Alternative would result in on-site disturbance to accommodate new development. Therefore, Mitigation Measures 4.4-2(a) through 4.4-2(e), and 4.4-3 would still apply to the Clustered Development 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 similar under the Clustered Development Alternative compared to the Project.

Geology and Soils

As noted above, the Clustered Development Alternative would include a similar 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 similar to the Project, and Mitigation Measure 4.5-4 would still be required. In addition, because development would occur in a similar footprint as the Project, the Alternative would have the potential to be located on expansive soil, and Mitigation Measures 4.5-3, requiring submittal of a design-level geotechnical engineering report, would still be required. Overall, impacts related to Geology and Soils under the Clustered Development Alternative would be similar to the Project.

Hazards and Hazardous Materials

As previously discussed, the Clustered Development Alternative would entail buildout of residential uses and preservation of open space areas. The Alternative would therefore be required to abandon the on-site water well prior to construction activities in accordance with current regulatory guidelines. As such, consistent with the recommendations of the Phase I ESA prepared for the Project, Mitigation Measure 4.6-2 would still be required. Overall, impacts related to Hazards and Hazardous Materials under the Clustered Development Alternative would be similar to the Project.

Hydrology and Water Quality

Given that the Clustered Development Alternative would include a similar area of disturbance compared to the Project, the potential for the Alternative to result in construction and operational impacts related to water quality would also be the same. Therefore, Mitigation Measures 4.7-1, 4.7-2(a), and 4.7-2(b) would still be required, and impacts related to Hydrology and Water Quality under the Clustered Development Alternative would be similar to the Project.

Noise

Similar to the Project, the Clustered Development Alternative would include the construction of residential uses within the site in close proximity to existing residential receptors. Thus, the potential to result in a substantial temporary increase during construction would be the same, and Mitigation Measure 4.9-1, which reduces impacts associated with a temporary increase in ambient noise levels, would still be required. Overall, impacts related to Noise under the Clustered Development Alternative would be similar to the Project.

Transportation

As previously discussed, the Clustered Development Alternative would include buildout of the site with HDR and RMC uses. 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. Because the Alternative would still result in on-site development and increase transit ridership and demand for transit stops near the Project, Mitigation Measures 4.11-3(a) and 4.11-3(b) would also still be required to reduce potential conflicts with adopted policies, plans, or programs supporting transit facilities to a less-than-significant level.

The Clustered Development Alternative would include the development of 120 dwelling units within a 7.3-acre portion of the site, for a total residential density of approximately 16.4 du/ac, consistent with the HDR land use designation. As shown in Table 4.11-2 in Chapter 4.11, Transportation, of this EIR, the applicable VMT limit for the HDR service population is 17.7. Therefore, in order to reduce VMT associated with residential uses on the site to below the applicable threshold of significance of 17.7, VMT per service population would need to be reduced by three percent. By increasing the density by 0.5 dwelling unit per acre (du/ac) above 9.1 du/ac, a reduction of approximately one percent in residential VMT can be achieved, up to a maximum reduction of 30 percent. As such, in order to reach a three percent reduction in VMT per service



population, an approximately 1.5 du/ac increase in residential density would be required. As discussed above, the Alternative would result in a residential density of approximately 16.4 du/ac. Therefore, the VMT per service population under the Clustered Development Alternative would meet the applicable threshold. The significant and unavoidable impact identified for the Project related to conflicting or being inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) would not occur under the Clustered Development Alternative, and implementation of Mitigation Measure 4.11-4 would not be required. Overall, impacts related to Transportation under the Clustered Development Alternative would be fewer than 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 No Project (No Build) Alternative, as shown in Table 7-3 below.

The No Project (No Build) Alternative would not meet the majority of the project objectives. While the No Project (Buildout Pursuant to General Plan/Zoning) Alternative and the Clustered Development Alternative would meet the majority of the project objectives, Objectives #2, #3, #5, and #6 would not be satisfied by either Alternative, as 120 single-unit MDR uses would not be developed. Because the Increased Density Alternative would include development of MDR uses within the same development footprint as the Project, the Alternative would meet all project objectives.

As discussed throughout this chapter and shown in Table 7-3, the Clustered Development Alternative would result in fewer impacts related to GHG emissions, special-status branchiopod species, western spadefoot, northwestern pond turtle, and aquatic resources, and would reduce VMT impacts to a less-than-significant level. The Clustered Development Alternative results in similar impacts to the Project for the majority of remaining issue areas for which project impacts were identified. However, under the Clustered Development Alternative, the significant and unavoidable impact related to Air Quality, GHG Emissions, and Energy would still occur.

Based on the above, the Clustered Development Alternative would be considered the Environmentally Superior Alternative. As discussed above, the significant and unavoidable impact related to Air Quality, GHG Emissions, and Energy that was identified for the Project would still occur under the Clustered Development Alternative.



Table 7-3 Comparison of Environmental Impacts for Project Alternatives					
Impact	Project	No Project (No Build) Alternative	No Project (Buildout Pursuant to General Plan / Zoning) Alternative	Increased Density Alternative	Clustered Development Alternative
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	Fewer	Fewer
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	Similar	Similar
4.3-2 Have a substantial adverse effect, either directly or through habitat modifications, on Crotch's bumble bee.	Less Than Significant with Mitigation	None	Similar	Similar	Similar
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	Fewer	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	Similar	Similar
4.3-5 Have a substantial adverse effect, either directly or through habitat modifications, on western spadefoot.	Less Than Significant with Mitigation	None	Fewer	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	Fewer	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	Similar	Similar
4.3-8 Have a substantial adverse effect, either directly or through habitat modifications, on roosting bats.	Less Than Significant with Mitigation	None	Similar	Similar	Similar
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	Fewer	Similar	Fewer
4.3-13 Cumulative loss of habitat for special-status species.	Less Than Cumulatively Considerable with Mitigation	None	Similar	Similar	Similar
4.4 Cultural and Tribal Cultural Resources					
4.4-2 Cause a substantial adverse change in the significance of a unique archaeological 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	Similar	Similar
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	Similar	Similar
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	Similar	Similar
4.5-4 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Less Than Significant with Mitigation	None	Similar	Similar	Similar
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	Similar	Similar	Similar

(Continues on next page)



Table 7-3 Comparison of Environmental Impacts for Project Alternatives					
Impact	Project	No Project (No Build) Alternative	No Project (Buildout Pursuant to General Plan / Zoning) Alternative	Increased Density Alternative	Clustered Development Alternative
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	Similar	Similar	Similar
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	Similar	Similar	Similar
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.	Less Than Significant with Mitigation	None	Similar	Similar	Similar
4.11 Transportation					
4.11-1 Conflict with a program, plan, ordinance, or policy, except LOS, addressing the circulation system during construction activities.	Less Than Significant with Mitigation	None	Similar	Similar	Similar
4.11-3 Conflict with a program, plan, ordinance, or policy, except LOS, addressing the circulation system, including transit facilities and services, during operations.	Less Than Significant with Mitigation	None	Similar	Similar	Similar
4.11-4 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	Significant and Unavoidable	None	Similar	Fewer	Fewer
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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9. EIR Authors and Persons Consulted

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Raney Planning & Management, Inc.

C. Timothy Raney, AICP	President
Cindy Gnos, AICP	Senior Vice President
Nick Pappani	Vice President
Rod Stinson	Vice President/Air Quality Specialist
Angela DaRosa	Division Manager/Air Quality Specialist
Jesse Fahrney	Assistant Division Manager/Air Quality Specialist
Elijah Bloom	Senior Associate
Grace Olsen	Air Quality Technician
Elizabeth Carr	Associate
Roxanne Fernandez	Associate
Taylor Hautt	Associate
Alexander Levy	Associate

City of Elk Grove

Sarah Kirchgessner	Senior Planner
Antonio Ablog	Planning Manager

Madrone Ecological Consulting

Daria Snider	Senior Biologist
Tara Collins	Senior Biologist

Acorn Arboricultural Services, Inc.

Wayne McKee	Certified Arborist

Natural Investigations Company

John A. Nadolski, MA	Principal Investigator
Dylan Stapleton, MA, RPA	Archaeologist

Wallace Kuhl & Associates

Troy W. Kamisky	Staff Engineer
Todd G. Kamisky	Project Engineer

Pinnacle Environmental, Inc.

Travis J. Stansbery, CEM, EP	Operations Manager
Peter K. Cloven, CEM, EP	Principal Assessor

Wood Rodgers, Inc.

Michael C. Nowlan, PE, CFM	Principal Engineer



Saxelby Acoustics, LLC

Luke Saxelby, INCE Bd. Cert

Principal Consultant

Fehr & Peers

David B. Robinson, PE
Adrita Islam, PTP

Regional Principal-In-Charge
Senior Transportation Planner

