Town & Country Village El Dorado Project

SCH# 2023070297

Draft Environmental Impact Report

Prepared for
El Dorado County

July 2024

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Town and Country Village
El Dorado Project
Draft Environmental Impact Report

SCH# 2023070297

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1. INTRODUCTION

1. INTRODUCTION

1.1 TYPE AND PURPOSE OF THE EIR

The Town and Country Village El Dorado Project Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, Public Resources Code (PRC) Sections 21000-21189.91, as amended, and the Guidelines for Implementation of the California Environmental Quality Act, California Code of Regulations (CCR) Title 14, Sections 15000-15387 (CEQA Guidelines). El Dorado County is the lead agency for the environmental review of the Town and Country Village El Dorado Project (proposed project) evaluated herein and has the principal responsibility for reviewing the impacts and considering approval of the proposed 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 which reduce environmental effects. The public agency shall consider the information in the EIR along with other information that may be presented to the agency.

As provided in the CEQA Guidelines Section 15021, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. The public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social issues. CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. For the purposes of CEQA, the term “project” refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed project, the County 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 whether to approve the application. 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. El Dorado County’s overall strategy for structuring the EIR will be to comprehensively evaluate the potential physical environmental impacts of full Project Buildout so as to minimize, and to the extent feasible, avoid, the need for future environmental review as the proposed project builds out over time. This type of EIR is typically referred to as a project level EIR (CEQA Guidelines Section 15161). As stated in Section 15161, a project level EIR should focus primarily on the changes in the environment that would result from a specific development project, and shall examine all phases of the project including planning, construction, and operation. The current application includes project-level detail for the Project Development Area, and while comparable detail is not yet available for subsequent components of the Program Study Area, El Dorado County has provided meaningful environmental review related to construction and operations of the balance of full Project Buildout, thus, minimizing the need for future phase-

specific environmental review. As explained in *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1047-1048 (*Treasure Island*), courts strive to avoid attaching too much significance to titles in ascertaining whether a legally adequate EIR has been prepared for a particular project. The level of specificity of an EIR is determined by the nature of the project and the "rule of reason", rather than any semantic label accorded to the EIR.

1.2 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

"Responsible agency" means a public agency that proposes to carry out or approve 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 El Dorado County Air Quality Management District (EDCAQMD), El Dorado Irrigation District (EID), El Dorado Local Agency Formation Commission (LAFCo), and Central Valley Regional Water Quality Control Board (RWQCB) are identified as potential responsible agencies for the proposed project.

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

Although not subject to California law, and, thus, outside the definitions of responsible agency or trustee agency, the U.S. Army Corp of Engineers (USACE) and U.S. Fish and Wildlife Service (USFWS) will also be called upon to grant approvals under federal law necessary for the development of the project site. These 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., intrastate wetlands), and the Endangered Species Act, which requires the USACE to consult with the USFWS as part of the review process for any wetland or fill permits that may be required. Additionally, because EID draws water from Folsom Lake, the annexation of the project site into the EID service area would also require approval from the U.S. Department of the Interior Bureau of Reclamation.

1.3 PROJECT SUMMARY

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

Project Location and Setting

The project site is located in El Dorado County, California, approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road. The approximately 60.5-acre site is identified by Assessor's Parcel Numbers (APNs) 119-080-12, -021 and -023. The project site is located in the southern central portion of the Bass Lake Hills Specific Plan (BLHSP); the northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region. Surrounding land uses include undeveloped land and rural residences within the BLHSP to the north; rural residences to the west; the El Dorado Hills Fire Department Station 86 to the northwest; undeveloped land and rural residences to the south, across US 50; and undeveloped land to the east, with the Holy Trinity Parish and School located farther east. It should be noted that in recent years, multiple Tentative

Subdivision Maps have been approved for properties within the BLHSP, north of the project site, which are undergoing development.

The BLHSP designates the project site as Low Density Residential Planned Development with a maximum allowable density of 0.2 dwelling units per acre (du/ac) (L.2-PD) south of Country Club Drive and Low Density Residential Planned Development with a maximum allowable density of 0.7 du/ac (L.7-PD) north of Country Club Drive. The project site is zoned Residential Estate-10 acres (RE-10).

Project Description

The project site would consist of two areas: the Project Development Area consists of the northernmost and southernmost 30.3 acres of the project site, and would be developed with two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended stay basis, which would require a Conditional Use Permit (CUP). The Program Study Area consists of the central and easternmost 30.2 acres of the project site, and may include future development of additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts. As discussed above, buildout of the Project Development Area will be evaluated at a project level, and buildout of the Program Study Area will be evaluated at a program level based on the potential allowable uses, building areas, and required parking described in the BLHSP Amendment document (see Appendix A). The proposed project would require approval of a General Plan Amendment, BLHSP Amendment, Rezone, a Planned Development, Tentative Subdivision Map, and a CUP, as well as other responsible agency approvals.

The details of the proposed 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 Planning and Research (OPR), which will ensure that responsible and trustee State agencies reply within the required time. 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. The NOP completed for the proposed project was circulated to the public; local, State, and federal agencies; and other known interested parties for a 30-day review period from July 18, 2023 to August 17, 2023 (see Appendix B).

Upon completion of the Draft EIR and prior to circulation to State and local agencies and interested members of the public, a notice of completion is filed with the SCH and a public notice of availability is published to inform interested parties that a Draft EIR is available for agency and public review. In addition, the notice provides information regarding the location where copies of the Draft EIR are available for public review and any public meetings or hearings that are scheduled. The Draft EIR is circulated for a minimum period of 45 days, during which time

reviewers may submit comments on the document to the lead agency. The lead agency must respond 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 comments on the Draft EIR and written responses to those comments, as well as a list of changes to the Draft EIR text necessitated by public comments, as warranted. The Final EIR will also include the Mitigation Monitoring and Reporting Program (MMRP) prepared for the proposed project in accordance with PRC Section 21081.6. 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.

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.

1.5 SCOPE OF THE EIR

An Initial Study has not been prepared for the proposed project, as the EIR will address 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 Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services and Recreation;
- Transportation;
- Tribal Cultural Resources;
- Utilities and Service Systems;
- Wildfire;
- Effects Found Not to Be Significant;
- Statutorily Required Sections; and
- Alternatives Analysis.

The evaluation of effects is presented on a resource-by-resource basis in Chapters 4.1 through 4.14 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 4.14, and for which feasible mitigation measures are not available to reduce those impacts to a less-than-significant level, are identified as *significant and unavoidable*. In addition, Chapter 4.15, Effects Not Found to be Significant, has been prepared to present information regarding resource areas the lead agency has determined will not be significantly affected by the proposed project (CEQA Guidelines Section 15128). Chapter 5 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 proposed project are discussed in Chapter 6 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 could 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 proposed project. The CEQA Guidelines, Section 15126.2(a), states in pertinent part:

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

Normally, the baseline condition is the physical condition that exists when the NOP is published. The NOP for the proposed project was published on July 18, 2023. Therefore, conditions existing at that time are considered to be the baseline against which changes that would result from the proposed project are evaluated. Impacts could include both direct and indirect physical changes to the baseline condition. The baseline condition for the proposed project site is described in Chapter 3, Project Description, of this EIR. The baseline conditions pertaining to specific environmental impact areas are described in the "Existing Environmental Setting" sections of Chapters 4.1 through 4.14 of this EIR.

1.7 NOTICE OF PREPARATION AND SCOPING

In accordance with CEQA Guidelines Section 15082, an NOP was circulated to the public, local, State and federal agencies, and other known interested parties for a 30-day public and agency review period from July 18, 2023 to August 17, 2023 (see Appendix B). The purpose of the NOP was to provide notification that an EIR for the proposed 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, El Dorado County held an in-person NOP scoping meeting on August 8, 2023 at the El Dorado Hills Fire Department Community Room, and a virtual NOP scoping meeting on August 9, 2023, during the 30-day review period for the purpose of receiving comments on the scope of the environmental analysis to be prepared for the proposed project. Agencies and members of the public were invited to attend and provide input on the scope of the EIR.

A total of 55 written comment letters were submitted during the NOP public review period. In addition, a total of 17 verbal comments were received during the virtual and in-person NOP

scoping meetings held for the project. The comment letters and verbal comment summary are provided as Appendix C to this EIR. All comments were taken into consideration during the preparation of this EIR. A summary of the NOP comments received is provided in Section 1.8 below.

1.8 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

As noted above, El Dorado County received 55 letters during the NOP public review period from July 18, 2023 to August 17, 2023, as well as a total of 17 verbal comments during the virtual and in-person NOP scoping meetings. The comment letters and verbal comment summary are provided as Appendix C to this EIR. The comments received during the NOP public review period were provided by the following representatives of public agencies and groups:

Public Agencies

- El Dorado Irrigation District – Michael J. Brink
- El Dorado Local Agency Formation Commission – Erica Sanchez
- Native American Heritage Commission – Cameron Vela

Individuals

- Alan Sherman
- Ana Azarkeyvan (verbal comment)
- Andreanna Miranda
- Andrew Wong
- Anonymous Neighbor
- Anthony Dubovik
- Bryce Miller
- Chris Metzen (verbal comment)
- Christy Leflar
- Cinda and Jack Walton
- Daniel Mueller (verbal comment)
- Debbie Lewis-Barbour
- Debra Deti
- Dena Nkadi (verbal comment)
- Dennis Daniel
- Dennis E. Bane
- Don Dupere
- Donn Neher (verbal comment)
- Enrique and Reyna Rodriguez (verbal comment)
- Frank Porter
- Glenda Carminati
- Guy and Lynda Seymour (2)
- Helen Stokes
- Kathleen Jermstad
- Kathy Hatten
- Ken Greenwood (verbal comment)
- Kim Tank
- Laureen Shuttleworth
- Laurel Brent-Bumb
- Laurie Heyman
- Lianna Estes
- Luke Stratigakes
- Lynda Seymour (2)
- Lynda Seymour (verbal comment)
- Mary Burnham (verbal comment)
- Mattias Bergman (verbal comment)
- Meera Ramakrishnan
- Mike Leflar
- Nicky Smith (verbal comment)
- Peter Evenhuis
- Phil Alexander
- R. Wahl
- Rex Price
- Richard Holmes
- Ron “JJ” Loder
- Sabrene Neider
- Salina (2)
- Sanford Ogden III

- Hooshang Mehrshani (verbal comment)
- Jan Taylor (verbal comment)
- Janice Taylor
- John (verbal comment)
- John Albano
- John Albano (verbal comment)
- John Forst
- Karan and Steve Marsh
- Scot D. Bernstein
- Scott Green (verbal comment)
- Stacie Sherman
- Stanley Price (3)
- Steve Ferry
- Tita Bladen (verbal comment)
- Vijay Kumar
- William Kraft

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

Aesthetics (Chapter 4.1)	Concerns related to: • Scenic views along US 50 and Bass Lake Road. • Impacts of the hotel on the aesthetics of the rural community. • New sources of light and glare. • Landscaping remaining consistent with the natural environment.
Air Quality, Greenhouse Gas Emissions, and Energy (Chapter 4.2)	Concerns related to: • Increase in traffic leading to increased emissions. • Health issues as a result of increased air pollution. • The use of diesel fuel and impacts to air quality. • Air quality impacts due to particulate matter during construction. • The inclusion of an evaluation of energy demand associated with the project. • Solar power use at the project site. • Testing for asbestos in the soil prior to any ground-disturbing activities.
Biological Resources (Chapter 4.3)	Concerns related to: • Impacts to native trees. • Adverse effects to riparian communities. • Impacts to special-status species. • Interference with the movement of native wildlife species. • Verification of the project's payment of mitigation fees. • Proper monitoring of mitigation measures related to biological resources.
Cultural Resources (Chapter 4.4)	Concerns related to: • The project's impact on the heritage and history of the region, including impacts to cultural resources such as Historic Old Bass Lake Road and Lincoln Highway.
Land Use and Planning/Population and Housing (Chapter 4.8)	Concerns related to: • Project consistency with the County General Plan. • Project consistency with the County zoning ordinance. • Impacts on population density due to project inconsistency with the Bass Lake Hills Specific Plan and County General Plan. • Project consistency with County's Regional Housing Needs Assessment (RHNA) goals.

Noise (Chapter 4.9)	Concerns related to: • Increases in noise during operation, including transportation noise increases. • Impacts to residences within the project area due to project-generated noise increases.
Public Services and Recreation (Chapter 4.10)	Concerns related to: • Increased demand for emergency services and law enforcement. • Potential impacts to fire and emergency medical service facilities, parks and recreation, and road maintenance. • Payment of fair share development fees by the applicant. • Inclusion of public open space within the project site.
Transportation (Chapter 4.11)	Concerns related to: • Increases in traffic congestion, especially on Bass Lake Road and Country Club Drive. • Impacts on roadway circulation in the area due to project-generated traffic increases. • Increases in regional vehicle miles traveled (VMT) due to the proposed project. • Project-generated traffic increases causing a need to widen local roadways. • Access to US 50 and increased queuing along Bass Lake Road. • Hazards related to road design, and the need for traffic-calming measures. • Increased risk of accidents due to increased traffic. • Impacts on bicycle facilities. • Bike and pedestrian access to the project site. • Impacts to the County's Park-and-Ride program.
Utilities and Service Systems (Chapter 4.13)	Concerns related to: • EID's capacity to serve the project and their ability to meet future increased water demand. • Inadequate water supply to service the project due to the project-generated population increase. • The location, size, and capacity of existing water supply infrastructure, and the need for improvements required to provide service to the project site. • The need for on-site and off-site wastewater facility improvements due to treatment issues. • Sewer routing impacts to Serrano Village C-2 Tentative Map. • Growth inducing impacts of proposed sewer line.
Wildfire (Chapter 4.14)	Concerns related to: • Project site being located within a Moderate Fire Hazard Severity Zone. • Impacts to evacuation routes.
Alternatives Analysis (Chapter 6)	Concerns related to: • Including an analysis of alternative locations for the project.

Concerns related to the issues above are addressed in this EIR in the relevant sections identified in the first column.

1.9 DRAFT EIR AND PUBLIC REVIEW

This Draft EIR is being circulated for public review and comment for a period of 45 days. During this period, the general public, organizations, and agencies can submit comments to the Lead

Agency on the Draft EIR's accuracy and completeness. Release of the Draft EIR marks the beginning of a 45-day public review period pursuant to CEQA Guidelines Section 15105. The public can review the Draft EIR at the County's website at:

https://engageeldorado.us.engagementhq.com/edc-projects-in-your-area

or at following address during normal business hours:

El Dorado County, Planning Services Department
2850 Fairlane Court
Placerville, CA 95667

Comments may be submitted both in written form and/or orally at the public hearing on the Draft EIR. Notice of the time and location of the hearing will be published in local newspapers, mailed to property owners and residents surrounding the project, emailed to residents that have requested to be placed on the project's email notification list, posted on the County's website, and posted at and adjacent to the site prior to the hearing.

All comments or questions regarding the Draft EIR should be addressed to:

Bret Sampson, Planning Manager
El Dorado County Planning and Building Department
2850 Fairlane Court
Placerville, CA 95667

Or provided via email at: TownAndCountryElDorado@edcgov.us

1.10 ORGANIZATION OF THE DRAFT EIR

The EIR is organized into the following sections:

Chapter 1 – Introduction

The Introduction chapter of the EIR 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 included in 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

The Executive Summary chapter of the EIR summarizes the elements of the project and the environmental impacts that would result from implementation of the proposed project, describes proposed mitigation measures, and indicates the level of significance of impacts after mitigation. In addition, the Executive Summary includes a summary of the project alternatives and areas of known controversy.

Chapter 3 – Project Description

The Project Description chapter of the EIR provides a detailed description of the proposed project, including the project's location, background information, objectives, technical characteristics, and required entitlements and approvals.

Chapter 4 – Environmental Setting, Impacts, and Mitigation

Contains project specific and cumulative analysis of environmental issue areas associated with the proposed project. The section for each environmental issue contains an introduction and description of the setting of the project site, identifies impacts, and recommends appropriate mitigation measures.

Chapter 5 – Statutorily Required Sections

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

Chapter 6 – Alternatives Analysis

The Alternatives Analysis chapter of the EIR provides a comparative analysis of the alternatives to the proposed project, their respective comparative environmental effects, and a determination of the environmentally superior alternative. It should be noted that the alternatives are analyzed at a level of detail less than that of the proposed project; however, the analyses include sufficient detail to allow for a meaningful comparison of impacts.

Chapter 7 – References

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

Chapter 8 – 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 proposed project.

2. EXECUTIVE SUMMARY

2. EXECUTIVE SUMMARY

2.1 INTRODUCTION

The Executive Summary chapter of the EIR provides an overview of the proposed 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 4.15. This chapter also summarizes the alternatives to the proposed project that are described in Chapter 6, Alternatives Analysis, and identifies the Environmentally Superior Alternative. Table 2-1 contains the environmental impacts associated with the proposed 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 PROPOSED PROJECT

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

Project Location and Setting

The project site is located in El Dorado County, California, approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road. The approximately 60.5-acre site is identified by Assessor's Parcel Numbers (APNs) 119-080-12, -021, and -023. The project site is located in the southern central portion of the Bass Lake Hills Specific Plan (BLHSP); the northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region. Surrounding land uses include undeveloped land and rural residences within the BLHSP to the north; rural residences to the west; the El Dorado Hills Fire Department Station 86 to the northwest; undeveloped land and rural residences to the south, across US 50; and undeveloped land to the east, with the Holy Trinity Parish and School located further east. The BLHSP designates the project site as Low Density Residential Planned Development with a maximum allowable density of 0.2 dwelling units per acre (du/ac) (L.2-PD) south of Country Club Drive and Low Density Residential Planned Development with a maximum allowable density of 0.7 du/ac (L.7-PD) north of Country Club Drive. The project site is zoned Residential Estate-10 acres (RE-10).

Project Description

The project site would consist of two areas: the Project Development Area consists of the northernmost and southernmost 30.3 acres of the project site, and would be developed with two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended basis, which would require a Conditional Use Permit (CUP). The Program Study Area consist of the central and easternmost 30.2 acres of the project site and may include future development of additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts. The proposed project would require approval of a General Plan Amendment, BLHSP Amendment, Rezone, a Planned Development, Tentative Subdivision Map, and a CUP, as well as other responsible agency approvals.

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

2.3 ENVIRONMENTAL IMPACTS AND PROPOSED AND RECOMMENDED MITIGATION

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 proposed project to reduce potential adverse impacts to a less-than-significant level. Such mitigation measures are noted in this EIR and are found in the following technical chapters: Aesthetics; Air Quality, Greenhouse Gas Emissions, and Energy; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; Transportation; Tribal Cultural Resources; and Wildfire. The mitigation measures presented in the EIR will form the basis of the Mitigation Monitoring and Reporting Program. Any impact that remains significant after implementation of mitigation measures is considered a significant and unavoidable impact.

A summary of the identified impacts in the technical chapters of the EIR is presented in Table 2-1. In Table 2-1, the proposed project impacts are identified for each technical chapter (Chapters 4.1 through 4.15) of the EIR. 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 evaluation of the alternatives considered for the proposed project, which include the following:

- No Project (No Build) Alternative;
- Buildout Pursuant to BLHSP Alternative; and
- Higher Density Alternative.

For a more thorough discussion of project alternatives that were evaluated in this EIR, including alternatives considered but dismissed, please refer to Chapter 6, Alternatives Analysis.

No Project (No Build) Alternative

The County has decided to evaluate a No Project (No Build) Alternative, which assumes that the current conditions of the project site would remain, and the site would not be developed. As described in this EIR, Country Club Drive crosses through the northern portion of the site and a dirt road is located in the western area of the site. With the exception of two wells located near the center of the site, the project site is otherwise undeveloped. On-site vegetation consists of seasonal grasses and scattered oak trees. In addition, rock outcroppings are located throughout the site. Seasonal wetlands have also been observed on-site, as well as drainage ditches and an intermittent drainage path that run along the roadways in the site vicinity. The No Project (No Build) Alternative would not meet any of the project objectives.

Buildout Pursuant to BLHSP Alternative

Under the Buildout Pursuant to BLHSP Alternative, rather than split the project site into the Project Development Area and the Program Study Area, the entire project site would be developed consistent with the site's existing BLHSP land use designations. As shown in Figure 3-4 in Chapter 3, Project Description, of this EIR, the BLHSP designates the approximately 43.12-acre portion of the project site located south of Country Club Drive as Low Density Residential Planned Development with a maximum allowable density of 0.2 du/ac (L.2-PD); the approximately 17.38-acre portion of the project site located north of Country Club Drive is designated as Low Density Residential Planned Development with a maximum allowable density of 0.7 du/ac (L.7-PD).

Assuming buildout at the maximum allowable density for the foregoing land use designations, the southern portion of the project site designated as L.2-PD would be developed with nine low density residences, and the northern portion of the project site designated as L.7-PD would be developed with 12 low density residences, for a total of 21 residences across the entire project site. The currently proposed hotel and retail uses would not be developed under the Buildout Pursuant to BLHSP Alternative. When taking into account full buildout of the proposed project, which could include the development of up to 814 residences, the Alternative would result in the development of 793 fewer residences than the proposed project.

Similar to the proposed project, the Buildout Pursuant to BLHSP Alternative would require annexation into the El Dorado Irrigation District (EID) service area, which is subject to El Dorado Local Agency Formation Commission (LAFCo) approval. In addition, one of the two off-site water main alternatives would be required to provide water to the project site. Unlike the currently proposed project, the proposed sewer main connection would not be required under the Alternative; the proposed septic sewer system would be sufficient to serve the needs of the reduced population associated with the Buildout Pursuant to BLHSP Alternative. The General Plan Amendment, BLHSP Amendment, and Rezone associated with the proposed project would not be required under the Buildout Pursuant to BLHSP Alternative.

Because a site plan has not been prepared for the Buildout Pursuant to BLHSP Alternative, it cannot yet be determined if the Alternative would incorporate existing on-site natural resources, provide trails on-site, or preserve the Lincoln Highway; as such, the Alternatives ability to meet Project Objectives 2 through 4 cannot be determined. However, because the Buildout Pursuant to BLHSP Alternative would include the development of only residential uses with generally uniform density, the Alternative would not meet the remaining project objectives.

Higher Density Alternative

As noted above, the proposed project would result in a significant and unavoidable impact related to vehicle miles traveled (VMT). In their Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity[1], the California Air Pollution Control Officers Association (CAPCOA) sets forth VMT reduction strategies where the effectiveness of the strategies is supported by substantial evidence. Potential CAPCOA VMT reduction strategies should be relevant to the project's location and land use context. It should be noted that most of the CAPCOA VMT reduction strategies also reduce greenhouse gas (GHG) emissions and criteria pollutants, considered co-benefits, by reducing the source metric of VMT (i.e., vehicle ownership, number of vehicle trips, and trip distance). Potential consequences of GHG emissions and climate change for El Dorado County include more frequent and intense

1 California Air Pollution Control Officers Association. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. December 2021.

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 El Dorado County and is projected to lead to more severe conditions in the future. Therefore, for the purposes of this EIR, reduction of impacts related to VMT and climate change are considered a high priority due to the potential consequences of climate change for El Dorado County.

Based on the above, the Higher Density Alternative is primarily designed to reduce VMT impacts, and, thus, GHG emissions, as compared to the proposed project. The CAPCOA strategies that could be applicable to the proposed project include, but may not necessarily be limited to, increasing residential density and unbundling parking.

Under the Higher Density Alternative, buildout of the Project Development Area of the project site would be the same as the proposed project. The Higher Density Alternative would include the development of two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages within the Project Development Area. The Higher Density Alternative would also include off-site improvements, such as the off-site water main and the potential off-site sewer connection. Consistent with the proposed project, the Alternative would require approval of a General Plan Amendment and Tentative Subdivision Map, as well as a CUP and other responsible agency approvals.

Additionally, similar to the proposed project, the Higher Density Alternative would require approval of a BLHSP Amendment to establish three new land use designations for the BLHSP: Commercial (C), Multi-Family Residential (MFR), and Open Space (OS), as well as a Rezone RE-10 to the following El Dorado County zoning districts: Community Commercial (CC), Multi-Unit Residential (RM), and Open Space (OS).

Whereas the proposed project would include the potential future development of the Program Study Area with additional hotels, medical facilities, senior housing, and townhomes and cottages, under the Higher Density Alternative, the 15.1 acres designated as MFR and the 11.9 acres designated as C within the Program Study Area, totaling 27 acres, would be developed with multi-family residences at the maximum allowable density of 30 du/ac. Under the proposed project, the Program Study Area would have the potential to be developed with up to 702 residential units at a density of 26 du/ac. The Higher Density Alternative would include the development of 810 residential units, resulting in an increase of 108 residential units beyond what is currently anticipated for the Program Study Area. In addition, the Higher Density Alternative would unbundle parking costs from property costs; the annual cost per parking space would be $3,607.

Because development of the Project Development Area under the Higher Density Alternative would be the same as the proposed project, and because the Alternative would provide additional variety of the housing types and densities within the project site, all project objectives would be met by the Higher Density Alternative.

Environmental 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. However, the lead agency may consider certain issue areas at a higher priority than others. For

the purposes of this EIR, reduction of impacts related to VMT and climate change are considered a high priority due to the potential consequences of climate change for El Dorado County. 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 County. 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 project site is assumed to remain in its current condition under the alternative. Consequently, none of the impacts resulting from the proposed project would occur under the Alternative.

The No Project (No Build) Alternative would not meet any of the project objectives. Although the Buildout Pursuant to BLHSP Alternative's ability to meet Objectives 2 through 4, cannot be determined, because the Alternative would include the development of only residential uses with generally uniform density, the Buildout Pursuant to BLHSP Alternative would not meet any of the remaining project objectives. Because development of the Project Development Area under the Higher Density Alternative would be the same as the proposed project, and because the Alternative would provide additional variety of the housing types and densities within the project site, all project objectives would be met by the Higher Density Alternative.

As discussed in detail in the Alternatives Analysis chapter of this EIR and presented in Table 6-2 therein, the Buildout Pursuant to BLHSP Alternative would result in a greater impact related to Transportation, fewer impacts related to Aesthetics, Air Quality, GHG Emissions, and Energy, Biological Resources, and Noise, and similar impacts related to the remaining issue areas for which project impacts were identified; under the Buildout Pursuant to BLHSP Alternative, the significant and unavoidable impact identified for the proposed project related to Air Quality, GHG Emissions, and Energy would not occur. The Buildout Pursuant to BLHSP Alternative would not avoid the significant and unavoidable impacts related to Aesthetics, Cultural Resources, or Transportation. The Higher Density Alternative would result in similar impacts for all issue areas for which project impacts were identified, with the exception of Transportation. The Higher Density Alternative would result in fewer impacts than the proposed project related to Transportation, and the significant and unavoidable impact would not occur. In addition, the Higher Density Alternative would not avoid the significant and unavoidable impacts related to Aesthetics, Air Quality, GHG Emissions, and Energy, Cultural Resources, and Noise.

Although the Buildout Pursuant to BLHSP Alternative would result in fewer impacts than the proposed project related to four of the 11 issue areas and would avoid the significant and unavoidable impacts related to Noise and Air Quality, GHG Emissions, and Energy, impacts related to Transportation would be greater and the significant and unavoidable impacts related to Aesthetics, Cultural Resources, and Transportation would still occur under the Alternative. As discussed previously, the County's priority when considering alternatives is to reduce VMT impacts, and, thus, GHG emissions and climate change, as compared to the proposed project. Of the Alternatives considered in this EIR, only the Higher Density Alternative would avoid the significant and unavoidable impact related to Transportation and would result in a reduction in VMT, and an associated reduction in GHG emissions, as compared to the proposed project. Therefore, the Higher Density Alternative would be considered the Environmentally Superior Alternative.

2.5 AREAS OF KNOWN CONTROVERSY

Areas of controversy that were identified in NOP comment letters, and are otherwise known for the project area, include the following:

- Impacts to scenic quality;
- Increases in light pollution;
- Increases in air pollution and GHG emissions;
- Impacts to special-status plant and wildlife species and habitats;
- Adverse effects to riparian communities;
- Impacts upon cultural, historical, or tribal resources at the project site;
- Project consistency with the General Plan, Zoning Ordinance, and BLHSP;
- Increased risk of accidents due to increased traffic;
- Impacts on roadway circulation in the area due to the project generated traffic increases;
- Bike and pedestrian access;
- Increases in regional VMT associated with the proposed project;
- Increases in demand for water and sewer services;
- Growth inducing impacts of the proposed sewer line;
- Impacts to evacuation zones;
- Increased wildfire risk;
- Noise increases; and
- Increased demand for emergency services and law enforcement.

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 Have a substantial adverse effect on a scenic vista.	LS	*None required.*	N/A
4.1-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.	LS	*None required.*	N/A
4.1-3 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.	S	*Project Development Area and Project Buildout* *4.1-3 In conjunction with submittal of improvement plans, the project applicant shall submit a Final Landscape Plan. As part of the Final Landscape Plan, trees along public roadways on the project frontage shall be a minimum of 24-inch box size as well as a mix of 36-inch and 48-inch box sizes. Trees shall be placed to screen the proposed development to the maximum extent feasible. The Final Landscape Plan shall be subject to review and approval by El Dorado County Planning and Building Department.*	SU
4.1-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LS	*None required.*	N/A
4.1-5 Long-term changes in visual character associated with development of the proposed project in combination with	S	*Project Development Area and Project Buildout* *4.1-5 Implement Mitigation Measure 4.1-3.*	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
	future buildout of the El Dorado County General Plan.			
4.1-6	**Creation of new sources of light or glare associated with development of the proposed project in combination with future development of the El Dorado County General Plan.**	LCC	*None required.*	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	*None required.*	N/A
4.2-2	**Conflict with or obstruct implementation of the applicable air quality plan during project operation.**	LS S	*Project Development Area* *None required.* *Program Study Area* *4.2-2(a) At the time of application submittal for development of the Program Study Area, the project applicant shall retain a qualified air quality consultant to conduct an analysis to quantify the project's operational ROG emissions. If ROG emissions are determined to be less than or equal to 64.1 lbs/day (i.e., 76.90 lbs/day presented in Table 4.2-9 minus the 12.8 lbs/day required for the project to be below the applicable EDCAQMD threshold of significance), further mitigation is not required.*	LS SU

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Table 2-1
Summary of Impacts and Mitigation Measures

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		If ROG emissions are determined to exceed 64.1 lbs/day, the qualified air quality consultant shall identify measures to reduce the project's operational ROG emissions to below 64.1 lbs/day, or to the maximum extent feasible, as determined by the County. Emission reduction measures may include, but are not limited to, the following: • *Prohibit natural gas on-site;* • *Install rooftop solar;* • *Use no VOC paints for architectural coatings;* • *Install on-site EV charging equipment beyond the CalGreen Code requirements;* • *Design internal roadways to maximize pedestrian and bicycle access; and* • *Include 100-volt electrical receptacles on the exterior of buildings for purposes of charging or powering electric landscaping equipment.* *Quantified emissions and identified reduction measures shall be submitted to EDCAQMD and the El Dorado County Planning and Building Department for review and approval.* *4.2-2(b)* *Implement Mitigation Measure 4.11-3.*	

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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
4.2-3 Expose sensitive receptors to substantial pollutant concentrations.	S	*Project Development Area and Project Buildout* *4.2-3 Prior to the approval of improvement plans, a qualified geologist or geotechnical engineer shall be retained to conduct additional geologic evaluations of the portion of the site located within an El Dorado County review area for NOA to determine the presence or absence of naturally occurring asbestos. In the event that naturally occurring asbestos is located on-site, an Asbestos Dust Mitigation Plan shall be prepared and submitted to the EDCAQMD and the El Dorado County Planning and Building Department for review and approval. The Asbestos Dust Mitigation Plan shall comply with the El Dorado County Code Section 8.44.030(B), which provides performance standards for ensuring that adverse impacts do not result from asbestos dust during construction. The plan shall address compliance with EDCAQMD Rule 223-2, Fugitive Dust – Asbestos Hazard Mitigation, and the CARB's Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations.*	LS
4.2-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LS	*None required.*	N/A
4.2-5 Result in the inefficient or wasteful use of energy, or conflict with a State or local	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
	plan for renewable energy or energy efficiency.			
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 CC/S	*Project Development Area* *None required.* *Program Study Area* *4.2-6 Implement Mitigation Measures 4.2-2(a) and 4.11-3.*	N/A CC/SU
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.**	S	*Project Development Area and Project Buildout* *4.2-7(a) The following requirements shall be noted on project improvement plans, subject to review and approval by the El Dorado County Planning and Building Department:* • *The proposed project shall be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; and* • *The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces.* *If the use of all-electric for any project component(s) (e.g., an appliance) is not enforceable or*	CC/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
		commercially feasible at the time of issuance of building permit, the applicant shall be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric. The emissions from the use of natural gas shall be calculated by a qualified professional utilizing EDCAQMD-, CARB-, or the USEPA-approved emissions models and quantification methods available and submitted to the County for review and approval, which shall include third-party review by a qualified consultant of the County's selection and be subject to applicant reimbursement of consultant costs. *Any and all GHG credits to off-set 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*	

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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
		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*	

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

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Geographic Prioritization of GHG Credits *GHG credits from reduction projects in the County 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 County 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 County may be purchased if adequate credits cannot be found in the County 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 County 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*	

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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
		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.*	

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Summary of Impacts and Mitigation Measures

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		• *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*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		reductions achieved by FMUs are achieved following completion of the future reduction project. *Program Study Area* *4.2-7(b)* *Prior to the initiation of construction of the Program Study Area, the project applicant shall demonstrate that construction-related GHG emissions would be reduced to 1,100 $MTCO_2e$/yr and shall submit proof to the El Dorado County Planning and Building Department.* *Construction-related GHG emissions can be reduced through several options, including, but not limited to, the following:* • *Modify the construction schedule to reduce the intensity of construction to lower emissions;* • *Ensure that phases of development do not overlap;* • *Use of renewable diesel for construction fuel rather than diesel;* • *Improve fuel efficiency from construction equipment by:* o *Minimizing idling time either by shutting equipment off when not in use or reducing the time of idling to no more than three minutes (five-minute limit is required by the state airborne toxics control measure*	

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Summary of Impacts and Mitigation Measures

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		[Title 13, sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site; and o *Using equipment with new technologies (repowered engines, electric drive trains).* • *Perform on-site emission reductions such as implementing on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines) or real, quantifiable, permanent, verifiable, and enforceable on-site emission reductions;* • *Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power;* • *Use a CARB-approved low carbon fuel for construction equipment; (NOX emissions from the use of low carbon fuel must be reviewed and increases mitigated.)* • *Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes;* • *Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones;*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75 percent by weight);* • *Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program;* • *Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option;* • *Produce concrete on-site if determined to be less emissive than transporting ready mix;* • *Use SmartWay certified trucks for deliveries and equipment transport; and* • *Develop a plan to efficiently use water for adequate dust control.* *The project applicant may elect to implement any combination of the foregoing measures to reduce construction-related GHG emissions. All GHG emissions reductions must be quantified. Compliance with the aforementioned measures shall be ensured by the El Dorado County Planning and Building Department.*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		If the quantified reduction measures do not reduce construction-related GHG emissions to below 1,100 $MTCO_2e$/yr, offsite carbon credits may be purchased to make up the difference. The purchase of off-site mitigation credits shall be negotiated with the County and EDCAQMD at the time that credits are sought. Off-site mitigation credits shall be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). The offsets shall be retired, and emissions must be offset through the year 2045. Such credits shall be based on CARB-approved protocols that are consistent with the criteria set forth in subdivision (a) of Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by El Dorado County and/or the EDCAQMD. Such credits must be purchased through one of the following: (i) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) any registry established by EDCAQMD. *4.2-7(c) Implement Mitigation Measure 4.11-3*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.2-8 Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.	LS	*None required.*	N/A
4.3 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	*Project Development Area and Project Buildout* *4.3-1 If construction has not commenced prior to the first day of spring 2026, a new round of special-status plant surveys shall be conducted in on- and off-site areas proposed for disturbance, prior to the commencement of construction.* *The surveys shall be conducted in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the CNPS Botanical Survey Guidelines of the California Native Plant Society, and Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The survey results shall be submitted to the El Dorado County Planning and Building Department prior to the commencement of construction activities. If special-status plant species are not found, further mitigation shall not be required.* *If special-status plants are found within the proposed impact area, specific mitigation measures shall be*	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
		determined based on the plant species affected, physical conditions at the impact site, and conditions at a proposed mitigation site, if applicable. Options for mitigating impacts to annual plants, such as dwarf dowingia, could include avoidance, seed collection and planting at a mitigation site, or collection of seed-bearing soil to be spread at a mitigation site. Options for mitigating impacts to perennial plants, such as Sanford's arrowhead or big-scale balsamroot, include avoidance, transplantation of plant to a mitigation site, propagation using cuttings to be planted at a mitigation site, or seed collection and planting at a mitigation site. *If special-status plants are impacted, a qualified biologist shall prepare an avoidance and mitigation plan detailing protection and avoidance measures, transplantation procedures, success criteria, and long-term monitoring protocols. The plan shall be reviewed and approved by the El Dorado County Planning and Building Department and shall ensure that mitigation for the impacts to rare plants shall result in no net loss of individual plants after a five-year monitoring period. In addition, a pre-construction worker awareness training shall be conducted to alert workers to the presence of and protections for special-status plants.*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		If plants listed under the Federal Endangered Species Act or the California Endangered Species Act are located within the project impact area and those plants cannot be avoided, the project proponent shall coordinate with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) (as appropriate) for issuance of an Incidental Take Permit (ITP) and shall implement similar mitigation measures as outline above and ultimately approved by the appropriate agency.	
4.3-2 Impacts to Crotch's bumble bee either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*Project Development Area and Project Buildout* *4.3-2 If, at the time of project implementation, Crotch's bumble bee is not designated as a California Endangered Species Act (CESA) candidate or CESA listed, mitigation is not required. However, if the species is a CESA candidate or CESA listed or is otherwise considered to be a special-status species, the following mitigation shall be required.* *If feasible, initial ground-disturbing activities associated with development of the project 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 bumble bee. If completing all initial ground-disturbing activities between September 1 and March 31 is not feasible, then at a maximum of 14 days prior to the commencement of construction activities, a qualified biologist with 10 or*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		more years of experience conducting biological resource surveys within California shall conduct a preconstruction survey for Crotch's bumble bee 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 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 bumble bee include species in the following families:*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		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 bumble bees are observed, watch any 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 bumble bee activity;* • *Listen for the humming of a nest colony; and*	

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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
		• *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 bumble bees. The survey report shall be submitted to the El Dorado County Planning and Building Department prior to the commencement of construction activities.* *If bumble bees are not located during the preconstruction survey or the bumble bees located are definitively identified as a common species (i.e., not special-status species), then further mitigation or coordination with the California Department of Fish and Wildlife (CDFW) is not required.* *If any sign(s) of a bumble bee nest is observed, and if the species present cannot be established as a common bumble bee, then construction shall not commence until either (1) the bumble bees present are positively identified as common (i.e., not a*	

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Table 2-1
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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		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. Mitigation required by the ITP may include, but not be limited to, the project applicant 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 project site that will remain appropriate habitat, worker awareness training, and/or other measures specified by CDFW.*	
4.3-3 Impacts to vernal pool fairy shrimp either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*Project Development Area (and Sewer Alternative 2)* *4.3-3 The project applicant may choose to conduct surveys for vernal pool fairy shrimp prior to initiation of any ground disturbance activities within the Project Development Area and/or Sewer Alternative 2; any such surveys shall be conducted in accordance with the Survey Guidelines for the Listed Large Branchiopods (USFWS 2017). If vernal pool fairy shrimp are not found during protocol-level wet*	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
		and dry season surveys, further mitigation shall not be required. If protocol-level surveys of the on-site depressional seasonal wetlands are not conducted, or if vernal pool fairy shrimp are found during protocol-level wet- or dry-season surveys of the features, then the project proponent or the USACE (depending on the regulatory mechanism) shall consult with the USFWS regarding impacts to vernal pool fairy shrimp associated with the project. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys. *The project proponent shall comply with any conditions of the appropriate take authorization from the USFWS prior to County approval of any permit authorizing construction. The conditions in this take authorization may include but will 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.*	
	LS	*Program Study Area* *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
4.3-4 Impacts to monarch butterfly either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*Project Development Area and Project Buildout* *4.3-4 If, at the time of project implementation, monarch butterfly is not designated as a federal Endangered Species Act (FESA) candidate or FESA listed, mitigation is not required. However, if the species is a FESA candidate or FESA listed or is otherwise considered to be a special-status species, the following mitigation shall be required.* *If construction occurs within annual brome grassland in on- and off-site improvement areas during the time when milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late September), a pre-construction survey shall be conducted by a qualified biologist no earlier than 15 days prior to construction within the proposed impact area and a 50-foot buffer in accessible areas. The biologist shall comprehensively search the survey area for milkweed plants, and all milkweed plants found shall be surveyed for monarch eggs, larvae (i.e., caterpillars), and chrysalises. Additionally, other plants immediately adjacent to milkweed plants shall also be searched for chrysalises. If eggs, caterpillars, or chrysalises are not detected, additional mitigation measures are not necessary. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.*	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
		If eggs, caterpillars or chrysalises are found, the plants shall be avoided with a 50-foot buffer until metamorphosis is completed and adult butterflies emerge and voluntarily 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. The alternative location must be a minimum of 50 feet outside of the impact area and must 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 will 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 Impacts to foothill yellow-legged frog either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*Off-Site Sewer Pipe Alignments Only* *4.3-5 Prior to initiation of ground disturbance activities within 100 feet of Carson Creek, associated with the off-site sewer pipe, the following measures shall be taken to mitigate potential impacts to foothill yellow-legged frog (FYLF):* • *As part of the CWA Section 404 USACE permitting for the project, the USACE will conduct formal Endangered Species Act consultation with the USFWS on potential impacts to federally-listed species or*	LS

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Summary of Impacts and Mitigation Measures

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		species that are proposed for listing; this may include FYLF.[2] If the USACE consults with USFWS on FYLF, the project applicant shall prepare a Biological Assessment, which will include details on potential impacts and mitigation for FYLF, to be submitted to the USACE and the USFWS. • *If take of FYLF is determined to be likely, the project applicant shall submit an application for an CDFW Code Section 2081 Incidental Take Permit.* • *If it is determined that take of FYLF is likely to occur, the project applicant shall abide by mitigation measures developed during the course of the Endangered Species Act consultation with the USFWS and CDFW. These mitigation measures could include, but are not limited to, seasonal work restrictions for initial ground disturbance, pre-construction surveys by a qualified biologist, the installation of wildlife exclusion fencing, biological monitoring, and worker environmental awareness training. If it is determined that take of FYLF is likely to occur, additional measures could include preservation, restoration, or enhancement of habitat on- or off-site, purchase of habitat*	

2 The USACE may choose not to consult with USFWS on FYLF as direct impacts to USACE jurisdictional FYLF habitat are not proposed; impacts would only be indirect.

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		credits from an agency-approved mitigation/conservation bank, working with a local land trust to preserve land, or any other method acceptable to USFWS and CDFW. *The mitigation measures listed below may be implemented if take of FYLF is likely to occur. The mitigation measures listed below may differ from mitigation measures included in a USFWS Biological Opinion or a CDFW Incidental Take Permit. If that occurs, the measures in the USFWS Biological Opinion and CDFW Incidental Take Permit take precedence.* o *The project proponent shall develop a Pre-Construction Survey Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities with 100 feet of Carson Creek. The Plan shall include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s). The Plan shall provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snow pack, timing and rate of spring runoff, day*	

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		length, average ambient air and water temperatures, local and seasonal conditions). For sites with suitable breeding habitat, two consecutive seasons of negative egg mass/larval surveys are recommended to support a negative finding. o *Within 3-5 days prior to entering or working within 100-feet of Carson Creek, a USFWS and CDFW-approved biologist shall perform a pre-construction survey, as specified in the Pre-Construction Survey Plan, within 500-foot buffer zone upstream and downstream of the construction area (if permitted by adjacent land owners). The survey shall include a description of any standing or flowing water. Permittee shall provide Pre-Construction Survey notes and observations to the USFWS and CDFW prior to commencing Covered Activities.* o *The project proponent shall develop a Relocation Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities within 100 feet*	

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Summary of Impacts and Mitigation Measures

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		of Carson Creek. The Relocation Plan shall include what life stage(s) will be relocated (e.g., adults or egg masses) and specific protocols for each life stage. The Relocation Plan shall quantify the amount, location, and quality of suitable receiving habitat (e.g., breeding and dispersal habitat). The Relocation Plan shall include capture and handling methods specific to each life stage. o *The project proponent shall ensure that Covered Activities, involving construction and heavy equipment use (such as excavation, grading, and contouring), that are conducted in streams, ponds, and riparian areas are limited to the period from May 1 to October 15 of each year (Dry Season). Any work outside of the Dry Season shall be subject to approval of the USFWS and CDFW.* o *Prior to the start of construction within 100 feet of Carson Creek, high visibility orange fencing shall be installed around approved work areas. The fencing shall remain in place while construction activities*	

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Summary of Impacts and Mitigation Measures

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		are ongoing and shall be regularly inspected and fully maintained at all times. o *The project proponent shall develop a Water Diversion Plan for FYLF and submit it to CDFW for approval prior to any in-stream activities. The Water Diversion Plan shall contain detailed descriptions of the water intake screening (e.g., screen material, size, cleaning method, etc.), the duration of the water diversion, how the project proponent will ensure that aquatic life will be maintained or relocated from the dewatered area, diversion materials (unacceptable materials that are deleterious to fish and wildlife include particle board, plastic sheeting, bentonite, pressure-treated lumber, creosote, concrete, or asphalt), and monitoring methods for the diversion.* • *If it is determined that take of FYLF is unlikely to occur, the Applicant shall conduct a pre-construction Visual Encounter Survey (VES) survey for the species within 15 days prior to initiation of ground disturbance within 100 feet of*	

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		Carson Creek. The survey shall be conducted in accordance with the Peek et al (2017) Visual encounter survey protocol for Rana boylii in lotic environments, but only implement the life-stage survey(s) that are appropriate for the time of year of the survey (which will be based on when construction commences). If survey results are negative, then no further mitigation will be required. If FYLF are found during the survey, then take should be considered likely to occur, and consultation with USFWS and CDFW as outlined above shall occur. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.	
4.3-6 Impacts to northwestern pond turtle either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*Off-Site Sewer Pipe Alignments Only* *4.3-6 A northwestern pond turtle survey shall be conducted no more than 48 hours prior to construction where construction activities overlap with suitable aquatic habitat (i.e., Carson Creek), and where construction will occur in arroyo willow riparian scrub or oak woodlands within 150 feet of these aquatic resources. If northwestern pond turtles or nests are not found, further mitigation is not required. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		If a northwestern pond turtle is observed within the proposed impact area, a qualified biologist shall relocate the individual to habitat of equivalent or greater value outside of the proposed impact area prior to construction. If a northwestern pond turtle nest is observed within the proposed impact area, the nest shall be fenced off and avoided until the eggs hatch. The exclusion fencing shall be placed no less than 25 feet from the nest. A qualified biologist shall monitor the nest daily during construction to ensure that hatchlings do not disperse into the construction area. Relocation of hatchlings shall occur as stipulated above, if necessary. *If, as part of the CWA Section 404 USACE permitting for the project, the USACE determines that formal Endangered Species Act (ESA) consultation with the USFWS is needed, the project proponent shall abide by the mitigation measures developed during the course of the ESA consultation, which shall supersede these measures. These mitigation measures could include, but are not limited to, seasonal work restrictions for initial ground disturbance, dewatering protocols, pre-construction surveys by a qualified biologist, the installation of wildlife exclusion fencing, turtle relocation, nest avoidance, biological monitoring, and worker environmental awareness training. Additional measures could include preservation, restoration, or*	

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Summary of Impacts and Mitigation Measures

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		enhancement of habitat on- or off-site, 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.	
4.3-7 Impacts to nesting birds and raptors protected under the MBTA and CFGC either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*Project Development Area and Project Buildout* *4.3-7 The project proponent shall implement the following:* • *If ground disturbance or other construction activities are proposed during the bird nesting season (February 1 – August 31), a focused survey for nesting raptors and migratory bird nests shall be conducted by a qualified biologist within 14 days prior to the beginning of construction activities in order to identify active nests. This survey shall be conducted within the proposed construction area and all accessible areas within the following buffer areas:* o *0.5-mile for bald eagle and golden eagle;* o *0.25-mile for tree-nesting raptors; and* o *500 feet for all other species.* • *Burrowing owl pre-construction surveys of suitable habitat shall be conducted within 14 days prior to the beginning of construction activities consistent with the CDFW Staff*	LS

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		Report on Burrowing Owl Mitigation (CDFW 2012). • *If active raptor nests are found, construction activities shall not take place within 0.25-mile for golden eagle or within 500 feet of other raptor nest(s) until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer shall be established. These no-disturbance buffers may be reduced based on consultation and approval by the County.* • *The limit of work shall be indicated by bright orange temporary fencing or other similar highly-visible marker. Construction activities or personnel shall not cross the fencing, except with approval of a qualified biologist. If trees containing nests or burrows must be removed as a result of project implementation, removal shall be completed during the nonbreeding season (late September to March) if possible, or after a qualified biologist determines that the young have fledged (during the breeding season).* • *If active nests are not found during the required pre-construction surveys, further mitigation shall not be required.* • *Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		all surveys. Surveys shall be repeated if there is a break of construction of more than 14 days during the nesting season.	
4.3-8 Impacts to roosting bats either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*Project Development Area and Project Buildout* *4.3-8 A qualified biologist shall conduct a bat habitat assessment of all potential roosting trees within the proposed impact footprint. This habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one (1) year prior to the start of construction.* *If potential roosting habitat is identified within the areas proposed for impact, the biologist shall survey the potential roosting habitat within 14 days prior to tree removal to determine presence of roosting bats. These surveys are recommended to be conducted utilizing methods that are considered acceptable by CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras or a combination thereof. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.* *If pre-construction surveys indicate that roosts of special-status bats are not present, or that roosts are inactive or potential habitat is unoccupied, further mitigation is not required. If roosting bats are found, exclusion shall be conducted as recommended by a*	LS

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		qualified biologist. Methods may include acoustic monitoring, evening emergence surveys, and the utilization of two-step tree removal supervised by a qualified biologist. Two-step tree removal involves removal of all branches that do not provide roosting habitat on the first day, and the next day cutting down the remaining portion of the tree. Once the bats have been excluded, tree removal may occur.	
4.3-9 Impacts to Northern California ringtail either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications.	S	*Project Development Area (and Off-Site Sewer Pipe Alignments)* *4.3-9 Within 14 days prior to the initiation of any construction activities, a qualified biologist shall conduct non-invasive preconstruction surveys for Northern California ringtail and ringtail nests in suitable habitats (riparian habitats, oak woodlands with shrubby understory, and/or trees five inches DBH or greater in riparian areas, particularly those with cavities) that will be disturbed by construction activity. Non-invasive methods may include camera traps and track plates as well as physical surveys of suitable habitat. If ringtail are found prior to the initiation of, and/or during construction activities, a qualified biologist shall consult with CDFW prior to relocation of any individual ringtail. The camera trap may be removed once construction begins.* *If a ringtail nest is observed within the project area during the preconstruction survey, a qualified biologist shall establish a 250-foot no-disturbance buffer and the nest shall be fenced off and avoided*	LS

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		until the young have left the nest, and the nest is no longer active as determined by the qualified biologist. A qualified biologist shall monitor to ensure that ringtails do not disperse into the construction area. *If any ringtails are observed within the project area, work shall be suspended in a 100-foot radius of the animal until the animal leaves the project area on its own volition. If necessary, the qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation. Any worker who inadvertently injures or kills a ringtail or who finds one dead, injured, or entrapped must immediately report the incident to a qualified biologist.* *CDFW may require mitigation for potential impacts to ringtail as part of a streambed alteration agreement. If CDFW assigns mitigation that is more stringent than the measure proposed above, the CDFW measure shall take precedence.*	
	LS	*Program Study Area* *None required.*	N/A
4.3-10 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies,	S	*Off-Site Sewer Pipe Alignments Only* *4.3-10 Prior to the commencement of ground-disturbing activities associated with the off-site sewer pipe, the project proponent shall apply for a Section 1600 Lake or Streambed Alteration Agreement from CDFW. Minimization and avoidance measures shall*	LS

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regulations or by the CDFW or USFWS.		*be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific storm water BMPs.* *Mitigation may include restoration or enhancement of resources on- or off-site, purchase habitat credits from an agency-approved mitigation/ conservation bank, off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW.*	
4.3-11 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.	S	*Project Development Area and Project Buildout* *4.3-11(a)* *Prior to initiation of any ground disturbance activities, the project proponent shall apply for a Section 404 permit from the U.S. Army Corps of Engineers (USACE) for impacts to regulated Waters (Waters) of the U.S. Waters that will be impacted shall be 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.* *4.3-11(b)* *Prior to initiation of any ground disturbance activities, the project proponent shall apply for WDRs and/or a Water Quality Certification from the RWQCB (depending on the limit of federal jurisdiction to wetlands and waters of the U.S. in place at the time)*	LS

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		and adhere to the certification conditions. Waters of the state that will be impacted shall be 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 RWQCB. *4.3-11(c) Implement Mitigation Measure 4.3-10.* *4.3-11(d) If the project applicant proceeds with the proposed off-site water main to be installed within the alignment of the approved Bass Lake North Bike Trail, the project applicant shall implement all mitigation measures included in the following resource agency permit documents:* • *Clean Water Act Section 401 Water Quality Certification and Order (WDID No. 5A09CR00228);* • *Streambed Alteration Agreement (EPIMS Notification No. ELD-34364-R2); and* • *Section 404 Permit (ID No. SPK-2022-00634).*	
4.3-12 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	LS	*None required.*	N/A

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impede the use of native wildlife nursery sites.			
4.3-13 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	S	*Project Development Area and Off-Site Sewer Pipe Alternatives* *4.3-13 Prior to initiation of ground disturbing activities within the Project Development Area and Off-Site Sewer Pipe Alignments, the applicant shall submit a final version of the Oak Resources Technical Report (ORTR) and an Oak Resources Code Compliance Certificate to the El Dorado County Planning and Building Department that address all on-site and off-site oak tree and oak woodland impacts. The following mitigation for oak woodlands and individual oak trees shall be accomplished using one or more of the following options:* *a. In-lieu fee payment based on the percent of on-site Oak Woodland impacted by the development and the DBH inches of trees impacted to be either used by the County to acquire off-site deed restrictions and/or conservation easements or to be given by the County to a land conservation organization to acquire off-site deed restrictions and/or conservation easements.* *1. In accordance with the ORMP, and based on current impact estimates for the Project Development Area and Off-Site Sewer Pipe Alignments, the project proponent*	LS

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Summary of Impacts and Mitigation Measures

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		would be required to mitigate at a ratio of 1:1 for impacts to 0 to 50 percent of the Oak Woodland within the project area. Based on this ratio, the project would require approximately 2.7 acres of Oak Woodland mitigation, unless it can be shown in the final ORTR, based on final project design, that the project would impact a lesser amount of oak woodland. *2. In accordance with the ORMP, based on a mitigation ratio of 3:1 for Heritage Trees and 1:1 for smaller trees, impacts to trees for the project combined with the off-site sewer alignments would incur mitigation (DBH) of up to 1,291.1 to 1,310.6 DBH inches, unless it can be shown in the final ORTR, based on final project design, that the project would impact a lesser amount of Heritage/Individual oak trees.* *b. Off-site deed restriction or conservation easement acquisition for purposes of off-site oak woodland conservation consistent with Chapter 4.0 (Priority Conservation Areas) of the ORMP;*	

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		c. Replacement planting within an area on-site for up to 50 percent of the total oak woodland mitigation requirement consistent with Section 2.4 (Replacement Planting Guidelines) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement; *d. Replacement planting within an area off-site for up to 50 percent of the total oak woodland mitigation requirement. Off-site replacement planting areas shall be consistent with Section 2.4 (Replacement Planting Guidelines) and Chapter 4.0 (Priority Conservation Areas) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement; or* *e. A combination of options a through d above.* *The final form of mitigation shall be approved by the El Dorado County Planning and Building Department prior to initiation of any ground disturbing activities*	
	LS	*Program Study Area* *None required.*	N/A
4.3-14 Cumulative loss of habitat for special-status species and oak woodlands.	CC/S	*Project Development Area and Project Buildout* *4.3-14 Implement Mitigation Measures 4.3-1, 4.3-2, 4.3-3, 4.3-4, 4.3-5, 4.3-6, 4.3-7, 4.3-8, 4.3-9, 4.3-10, 4.3-11(a) through 4.3-11(d), and 4.3-13.*	CC/SU

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Summary of Impacts and Mitigation Measures

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4.4 Cultural Resources			
4.4-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.	S	*Project Development Area and Project Buildout* *4.4-1(a) Prior to initiation of ground-disturbing activities, a qualified cultural resources specialist shall conduct a Phase II Archaeological Testing Program using a metal detector within any of the historic road segments delineated in the Cultural Resources Study prepared for the proposed project by Historic Resource Associates (HRA) that have an earthen surface in order to recover and document any historical artifacts that lie within the road prism. A report summarizing the results of the Phase II Archaeological Testing Program shall be submitted for review and approval to the El Dorado County Planning and Building Department. If historical artifacts are not found, further mitigation is not required.* *If historical artifacts are found, the qualified archaeologist shall assess the significance of the find in accordance with criteria for listing established by the National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) and make recommendations for further evaluation and treatment, as necessary, which could include, but not be limited to, avoidance of the historical artifact(s) and preservation in place, planning construction to avoid historical artifact(s), deeding the historical artifact(s) into permanent conservation easements; capping or covering the*	SU

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		historical artifact(s) with a layer of soil before building on the artifact(s), or planning parks, greenspace, or other open space to incorporate the historical artifact(s). The recommendations shall be documented in the project record and implemented by the project applicant.	
		4.4-1(b) Prior to the initiation of ground-disturbing activities, a professional archaeologist shall observe the placement of temporary drip fencing in order to protect the portions of the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway that occur within the project site and would be avoided by construction of the future private road and surface parking area associated with the proposed hotel/event center. If surfacing is needed to establish a hiking, equestrian, or bike trail on the historic road, surface materials shall be compatible in color and material to the existing road surface. Verification of the foregoing requirement shall be confirmed by the El Dorado County Planning and Building Department and County Department of Transportation.	
		4.4-1(c) Prior to construction of the off-site sewer line alignments to the west of Bass Lake Road, a professional archaeologist/historian shall provide preconstruction training to all contractors and staff who will participate in the construction of the buried sewer line within or near the prism of the historic road segments. Documentation of the training (i.e.,	

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		a sign-in sheet) shall be retained at the project site and shall be submitted with applicable reports to the El Dorado County Planning and Building Department. *4.4-1(d) Prior to approval of the final improvement plans for the off-site sewer line alignments, the plans shall demonstrate that the historic macadam surface along Old Bass Lake Road is fully avoided. The final off-site sewer line improvement plans shall be reviewed by the El Dorado County Planning and Building Department, County Department of Transportation, and a qualified historian/archaeologist, who shall confirm that the proposed sewer line design and non-construction buffers are sufficient to preserve the historic macadam surface intact.*	
4.4-2 Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines Section 15064.5.	S	*Project Development Area and Project Buildout* *4.4-2(a) Prior to initiation of ground-disturbing activities associated with the Project Development Area, the project contractor shall install drip-line fencing along the eastern boundary of the Project Development Area, between the intermittent drainage and just north of the multi-component archaeological site (P-09-000807/CA-ELD-000719/H/BLR-2 and CA-ELD-000719/H/BLR-3). The foregoing requirement shall be noted on the final improvement plans and subject to review and approval by the El Dorado County Planning and Building Department.*	LS

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		4.4-2(b) *Prior to initiation of ground-disturbing activities, a qualified archaeologist shall conduct a short awareness training session for all construction workers and supervisory personnel. The course shall explain the importance of, and legal basis for, the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event cultural resources or human remains/burials are uncovered during construction activities, including work curtailment or redirection and to immediately contact their supervisor and the archaeological monitor. The worker education session shall include visuals of artifacts (prehistoric and historic) that might be found in the project vicinity and take place on the construction site immediately prior to the start of construction. Documentation of the training (i.e., a sign-in sheet) shall be retained at the site and shall be submitted with applicable reports to the El Dorado County Planning and Building Department.* *4.4-2(c)* *If archaeological resources are discovered during project construction, then all work must halt within a 100-foot radius of the discovery. A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologists, shall be called to evaluate the significance of the find. Work shall not continue at the discovery site until the archaeologist conducts sufficient research and data collection to*	

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		make a determination that the resource is either 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the NRHP/CRHR. If a potentially eligible resource is encountered, then the archaeologist and El Dorado County shall arrange for either 1) total avoidance of the resource, if possible; 2) test excavations or total data recovery; or 3) other alternative forms of mitigation. The determination shall be formally documented in writing and submitted to El Dorado County as verification that the provisions in CEQA for managing unanticipated discoveries have been met.	
4.4-3 Disturb any human remains, including those interred outside of dedicated cemeteries.	S	*Project Development Area and Project Buildout* *4.4-3 The following language shall be noted on the project improvement plans, subject to review and approval by the El Dorado County Planning and Building Department.* *If articulated or disarticulated human remains are encountered on the project site or within the off-site water line or off-site sewer line alignments during construction activities, all work within 50 feet of the find must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The El Dorado County Coroner shall be immediately notified. If the Coroner determines the remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall determine and notify a Most Likely Descendant (MLD). Further*	LS

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		actions shall be determined, in part, by the desires of the MLD. The MLD shall be afforded 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendant may request mediation by the NAHC.	
4.4-5 Cause a cumulative loss of cultural resources.	LS	*None required.*	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, or seismic-related ground failure, including liquefaction, and landslides.	LS	*None required.*	N/A
4.5-2 Result in substantial soil erosion or the loss of topsoil.	S	*Project Development Area and Project Buildout* *4.5-2 Prior to issuance of any grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the CVRWQCB. The contractor shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework*	LS

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		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 both the County Planning and Building Department and the County Department of Transportation for review and approval and shall remain on the project site during all phases of construction.	
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.	S	*Project Development Area and Project Buildout* *4.5-3 Prior to final design approval and issuance of building permits for the proposed project, the project applicant shall submit a design-level geotechnical engineering report produced by a California Registered Civil Engineer or Geotechnical Engineer to the El Dorado County Planning and Building Department, for review and approval. The report shall include the geotechnical recommendations specified in the Preliminary Geotechnical Engineering Study prepared for the proposed project, unless it is determined in the design-level report that one or more recommendations need to be revised.*	LS

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		The design-level geotechnical engineering report shall address, at a minimum, the following: • *Compaction specifications and subgrade preparation for on-site soils;* • *Structural foundations;* • *Slope configuration and grading practices; and* • *Expansive/unstable soils, including fill.* *Prior to issuance of any building permits, the foundation and improvement plans shall incorporate design-level recommendations. All foundation and improvement plans shall be reviewed and approved by the El Dorado County Planning and Building Department prior to issuance of any building permits.*	
4.5-4 Have soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	LS	*None required.*	N/A
4.5-5 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	LS	*None required.*	N/A
4.5-6 Cumulative increase in the potential for geological related impacts and hazards.	LS	*None required.*	N/A

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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	*Project Development Area and Project Buildout* *4.6-2(a) Prior to issuance of a grading permit by El Dorado County for any off-site improvements associated with the proposed project, the project applicant shall ensure that a Phase I Environmental Site Assessment (ESA) is prepared and submitted to the County for review and approval.* *The Phase I ESA shall be prepared in accordance with the American Society for Testing and Materials (ASTM) E1527-21 standard (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process) by a State-licensed engineering geologist for the purpose of observing and assessing the conditions encountered at the proposed off-site improvement areas and providing conclusions and recommendations relative to any hazardous conditions or materials identified within the off-site improvement areas. The Phase I ESA shall include, but not necessarily be limited to, review of the physical setting of the off-site improvement areas; historical sources review (i.e., aerial photographic review, historical and current U.S. Geological Survey*	LS

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		[USGS] topographic maps, historical local abstracts, certified Sanborn maps); review of applicable federal, State, and local environmental databases; a field reconnaissance of the off-site improvement areas; and findings and conclusions. All recommendations set forth in the Phase I ESA shall be appropriately incorporated into the project and shall be subject to review and approval by the El Dorado County Planning and Building Department. If the Phase I ESA does not recommend further investigation of the off-site improvement areas, additional mitigation shall not be required.	
		4.6-2(b) If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered within the off-site improvement areas as part of the Phase I ESA, the impacted area(s) shall be isolated from surrounding, non-impacted areas. A State-licensed engineering geologist shall conduct a Phase II ESA of the impacted area(s) and obtain samples of the potentially impacted soil for analysis of the contaminants of concern in accordance with applicable U.S. Environmental Protection Agency (USEPA) Methods and comparison with applicable regulatory screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). The Phase II ESA shall be submitted for review and approval to El Corado County. Where the soil contaminant	

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		concentrations exceed the applicable regulatory screening levels, the impacted soil shall be excavated and disposed of off-site at a licensed landfill facility to the satisfaction of the El Dorado County Environmental Management Department. *Program Study Area* *4.6-2(c) In conjunction with submittal of an application for project-level entitlements for the Program Study Area, the project applicant shall identify whether the one active well within the Program Study Area would remain in place or be abandoned. If the well will be abandoned, such abandonment shall be done in accordance with the El Dorado County Well Construction and Water Supply Standards Ordinance, to the satisfaction of the El Dorado County Environmental Management Department.*	
4.6-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	LS	*None required.*	N/A
4.6-4 Cumulative exposure to potential hazards and increases in the transport, storage, and use of hazardous materials.	LS	*None required.*	N/A

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4.7 Hydrology and Water Quality			
4.7-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction.	S	*Project Development Area and Project Buildout* *4.7-1 Implement Mitigation Measure 4.5-2.*	LS
4.7-2 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations.	S	*Project Development Area* *4.7-2(a) As part of the Improvement Plan submittal process, the Preliminary Drainage Report provided during environmental review shall be submitted in final format. The Final Drainage Report may require more detail than that provided in the preliminary report, and will be reviewed in concert with the Improvement Plans to confirm conformity between the two. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: written text addressing existing conditions; the effects of the proposed improvements; all appropriate calculations; watershed maps; changes in flows and patterns; and proposed on- and off-site improvements to accommodate flows from the project. The report shall identify water quality protection features and methods to be used during construction, as well as long-term post-construction water quality measures. The final drainage report shall be prepared in conformance with the requirements set forth by El Dorado County at the time of Improvement Plan submittal and shall be*	LS

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		approved by the El Dorado County Planning and Building Department and the County Engineer. *4.7-2(b)* *Prior to approval of final project improvement plans, a detailed Best Management Practice (BMP) and water quality maintenance plan shall be submitted to the El Dorado County Planning and Building Department, and the County Engineer for review and approval as part of preparation of the project's Final Drainage Report. The BMP and water quality maintenance plan shall meet the standards of the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment. 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(c)* *Prior to approval of final project improvement plans, the project applicant shall submit a Report of Waste Discharge and a Form 200 to obtain coverage under the State Water Resources Control Board (SWRCB) Order WQ 2014-0153-DWQ, General Waste Discharge Requirements (WDR) for Small Domestic Wastewater Treatment Systems. All WDR Permit requirements shall be incorporated into the project design and shown on the improvement plans. Proof of compliance shall be submitted to the El Dorado*	

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		County Planning and Building Department for review and approval. *4.7-2(d)* *Prior to the completion of construction, the applicant shall prepare and submit an acceptable Stormwater Control Operation and Maintenance Plan, identifying the maintenance entity for the project's storm drainage system and maintenance requirements, for review and approval to the El Dorado County Planning and Building Department. The Stormwater Control Operation and Maintenance Plan shall be incorporated into the project's Final Drainage Plan. Typical routine maintenance consists of the following:* • *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.* • *Visually inspect for ponding water to ensure that filtration is occurring.* • *After all major storm events, inspect basins to ensure that the system is functioning as intended and is not clogged.* • *Continue general landscape maintenance, including pruning and cleanup throughout the year.* • *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.*	

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		• *Excavate, clean and or replace and screen or filter media to ensure ongoing infiltration.* *Project Development Area and Project Buildout* *4.7-2(e)* *As part of the Improvement Plan submittal process for each component of subsequent development associated with the Program Study Area, a Drainage Report shall be prepared by a Registered Civil Engineer that includes pre- and post-development hydrology calculations, as well as calculations for required treatment areas to ensure that the separately constructed on-site drainage systems comply with the El Dorado County Stormwater Management Plan (SWMP) and the NPDES Phase II MS4 General Permit, and any other applicable regulations at the time of permit issuance. The drainage report shall be submitted to the El Dorado County Planning and Building Department and the County Engineer for review and approval.*	
4.7-3 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LS	*None required.*	N/A

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4.7-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	S	*Project Development Area* *4.7-4(a) Implement Mitigation Measure 4.7-2(a).* *Project Development Area and Project Buildout* *4.7-4(b) Implement Mitigation Measure 4.7-2(e).*	LS
4.7-5 Cumulative impacts related to the violation of water quality standards or waste discharge requirements, and impacts resulting from the alteration of existing drainage patterns.	LS	*None required.*	N/A
4.8 Land Use and Planning/Population and Housing			
4.8-1 Physically divide an established community.	LS	*None required.*	N/A
4.8-2 Cause a significant environmental impact due to a conflict with any land use plan,	LS	*None required.*	N/A

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policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.			
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	*None required.*	N/A
4.8-4 Cause a significant cumulative environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LS	*None required.*	N/A
4.8-5 Cumulative unplanned population growth.	LS	*None required.*	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.	LS	*None required.*	N/A

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4.9-2 Generation of a substantial permanent increase in ambient noise levels associated with the Project Development Area in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	S	*Project Development Area* *4.9-2(a) All on-site truck circulation at the project site shall be prohibited during nighttime hours (10:00 PM to 7:00 AM). The applicant shall include language prohibiting nighttime deliveries in all vendor contracts associated with the proposed project. The language shall be reviewed and approved by the El Dorado County Planning and Building Department prior to Improvement Plan approval.* *4.9-2(b) In conjunction with the submittal of Improvement Plans and/or issuance of Building Permits, the project applicant shall include design and operational measures to ensure Event Center/Museum noise complies with the applicable noise standards. Available design and operational measures to ensure Event Center/Museum noise are in compliance could include, but not necessarily be limited to, the following:* • ***Noise Barriers:*** *The placement of permanent or temporary noise barriers would be an effective method to reduce event crowd and outdoor event amplified music noise at nearby residential receivers. The degree of effectiveness of noise barriers is dependent upon location, height and final elevation relative to nearby receivers, and shall be assessed using construction drawings.*	LS

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		• ***Shielding/Setbacks:*** *A site design that integrates shielding and/or setbacks from the outdoor event area could be an effective method to reduce event crowd and outdoor event amplified music noise at nearby residential receivers. The effectiveness would depend on degree of shielding and/or setback distances relative to nearby receivers, and shall be assessed using construction drawings.* • ***Event Sound System Configurations:*** *The loudness of a sound system is highly variable upon volume level, speaker placement, and speaker orientation/directionality relative to receivers. Implementation of a sound system loudness restriction (i.e., 70 dB at 50 feet), required speaker placement (i.e., setbacks/screening) and speaker facing would be effective measures to reduce outdoor event amplified music levels at nearby receivers.* • ***Outdoor Event Restrictions:*** *Restrictions on outdoor events, specifically with regards to allowable hours/time of day, would be effective in avoiding the potential of outdoor event crowd and outdoor event amplified music noise exceeding applicable General Plan noise level criteria*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		(e.g., outdoor events restricted during nighttime hours). *In conjunction with the submittal of Improvement Plans and/or issuance of Building Permits, a design-level acoustical analysis shall be submitted to the El Dorado County Planning and Building Department that demonstrates the included measures comply with applicable noise level criteria, including El Dorado County General Plan daytime, evening and nighttime hourly average (L_{eq}) and maximum (L_{max}) noise level standards at the closest residential receivers and General Plan exceedance criteria (Policy 6.5.1.13).*	
4.9-3 Generation of a substantial permanent increase in ambient noise levels associated with Project Buildout in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	S	*Project Buildout* *4.9-3 In conjunction with submittal of site-specific development plans for the Program Study Area, a noise impact study shall be prepared by a qualified noise consultant that addresses combined on-site operations noise level exposure associated with full buildout of the project (i.e., Project Development Area and Program Study Area) and submitted by the project applicant for review and approval to the El Dorado County Planning and Building Department. The noise impact study shall include an analysis of on-site operational noise exposure associated with full Project Buildout at nearby existing noise-sensitive receivers. The analysis shall include associated mitigation measures (as appropriate) to reduce full Project Buildout on-site operations noise*	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
		levels to a state of compliance with applicable El Dorado County General Plan daytime, evening and nighttime exterior noise level criteria and General Plan increase significance criteria at nearby existing noise-sensitive receptors to the extent feasible. Mitigation measures may include, but not necessarily be limited to, reducing on-site traffic volumes, reducing on-site vehicle speeds, constructing noise barriers and shielding/screening, using setbacks, implementing noise-reducing pavement, and implementing operational restrictions.	
4.9-4 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	LS	*None required.*	N/A
4.9-5 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout within El Dorado County.	LCC	*None required.*	N/A
4.10 Public Services and Recreation			
4.10-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/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
	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.			
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 sheriff protection services.**	LS	*None required.*	N/A
4.10-3	**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**	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
	service ratios, response times, or performance objectives for schools.			
4.10-4	**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 parks; 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, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.**	LS	*None required.*	N/A
4.10-5	**Result in substantial adverse physical impacts associated**	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
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 other public facilities.			
4.10-6 Cumulative impacts to public services.	LS	*None required.*	N/A
4.11 Transportation			
4.11-1 Conflict with a program, plan, ordinance, or policy, except LOS, addressing the circulation system during construction activities.	S	*Project Development Area and Project Buildout* *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 El Dorado County Department of Transportation for review and approval. The construction signing and traffic control plan shall include (but not be limited to) items such as:* • *Guidance on the number and size of trucks per day entering and leaving the project site;* • *Identification of arrival/departure times that would minimize traffic impacts;*	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
		• *Approved truck circulation patterns;* • *Locations of staging areas;* • *Locations of employee parking and methods to encourage carpooling and use of alternative transportation;* • *Methods for partial/complete street closures (e.g., timing, signage, location and duration restrictions);* • *Criteria for use of flaggers and other traffic controls;* • *Preservation of safe and convenient passage for bicyclists and pedestrians through/around construction areas;* • *Monitoring for roadbed damage and timing for completing repairs;* • *Limitations on construction activity during peak/holiday weekends and special events;* • *Preservation of emergency vehicle access;* • *Removing traffic obstructions during emergency evacuation events; and* • *Providing a point of contact for County residents and guests to obtain construction information, have questions answered, and convey complaints.* *The construction signing and traffic control plan shall be developed such that the following minimum set of performance standards is achieved throughout project construction. It is anticipated that additional*	

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Table 2-1
Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		performance standards would be developed once details of project construction are better known. • *All construction employees shall park in designated lots owned by the project applicant or on private lots otherwise arranged for by the project applicant.* • *Roadways shall be maintained clear of debris (e.g., rocks) that could otherwise impede travel and impact public safety.*	
4.11-2 Conflict with a program, plan, ordinance, or policy, except LOS, addressing the circulation system, including transit, roadway bicycle, and pedestrian facilities, during operations.	LS	*None required.*	N/A
4.11-3 Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	LS S	*Project Development Area* *None required.* *Program Study Area* *4.11-3 The below measures shall be implemented as practicable, to the satisfaction of the El Dorado County Engineer. VMT mitigation is based on guidance from the California Air Pollution Officers Association (CAPCOA).*	N/A 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
		Unbundling of Parking Costs from Rent *Unbundling, or separating, a residential project's parking costs from property costs shall require those who wish to purchase parking spaces to do so at an additional cost. On the assumption that parking costs are passed through to the vehicle owners/drivers using the parking spaces, unbundling would result in decreased vehicle ownership, and thus, a reduction in VMT and GHG emissions. Unbundling may not be available to all residential developments, depending on funding sources. Unbundling would reduce parking demand by up to 15.7 percent under ideal conditions, based on an upper limit of $300 per month per parking space. Benefits are proportional to the fee; for example, a $150/month fee would provide half the benefit of a $300/month fee.* *Reduced Parking Supply* *Reducing the total parking supply available at a residential project or site would create scarcity and add additional time and inconvenience to trips made by private auto, thus disincentivizing driving as a mode of travel. Reducing the convenience of driving would result in a shift to other modes and decreased VMT, and thus, a reduction in GHG emissions and VMT. Evidence of the effects of reduced parking supply is strongest for residential developments. Such measures would reduce VMT by up to 13.7 percent if all on-site parking was eliminated, and by*	

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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
		up to a prorated amount based on a lower level of implementation. Generally, El Dorado County requires one and a half to two parking spaces per multi-family unit; therefore, reducing the parking supply to one space per unit would reduce VMT by a maximum of 6.85 percent.	
4.11-4 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).	LS	*None required.*	N/A
4.11-5 Result in inadequate emergency access.	LS	*None required.*	N/A
4.11-6 Cumulatively conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	LS CC/S	*Project Development Area* *None required.* *Program Study Area* *4.11-6 Implement Mitigation Measure 4.11-3*	N/A CC/SU
4.12 Tribal Cultural Resources			
4.12-1 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074.	S	*Project Development Area and Project Buildout* *4.12-1(a) <u>Tribal Cultural Resources Awareness Training</u>. The following language shall be noted on project Improvement Plans, subject to review and approval by the El Dorado County Planning and Building Department:* *Prior to the initiation of construction, all construction crew members, consultants, and other personnel*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		involved in project implementation shall receive project-specific Tribal Cultural Resource (TCR) Awareness Training. The training shall be conducted in coordination with qualified cultural resource specialists and representatives from culturally affiliated Native American Tribes. The training will emphasize the requirement for confidentiality and culturally appropriate, respectful treatment of any finds of significance to culturally affiliated Native American Tribes. All personnel required to receive the training shall also be required to sign a form that acknowledges receipt of the training, which shall be submitted to the El Dorado County Planning and Building Department for review and approval. As a component of the training, a brochure will be distributed to all personnel associated with the project implementation. At a minimum the brochure shall discuss the following topics in clear and straightforward language: • *Field indicators of potential archaeological or cultural resources (i.e., what to look for, for example: archaeological artifacts, exotic or non-native rock, unusually large amounts of shell or bone, significant soil color variations, etc.)* • *Regulations governing archeological resources and tribal cultural resources.*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Consequences of disregarding or violating laws protecting archeological or tribal cultural resources.* • *Steps to take if a worker encounters a possible resource.* *The training shall include project specific guidance for on-site personnel including protocols for resource avoidance, when to stop work, and who to contact if potential archeological or TCRs are identified. The training shall also address the stoppage of work if potentially significant cultural resources are discovered during ground disturbing activities, and in the case of possible human remains the proper course of action requiring immediate contact with the County Coroner and the NAHC.* *4.12-1(b)* *Tribal Monitoring Related to P-09-00087 and Off-Site Improvement Areas. The project proponent or their construction contractor shall comply with the following measure to assist with identification of TCRs at the earliest possible time during project-related earthmoving activities. These measures shall be included as notes on the project improvements plans prior to their approval by the County.* • *The project proponent shall contact the UAIC THPO (thpo@auburnrancheria.com) at least 2 to 3 months prior to project ground-disturbing activities within the areas*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		identified for monitoring in the confidential tribal monitoring exhibit provided by UAIC to the County (e.g., P-09-000807 and off-site improvement areas) to retain the services of a UAIC Certified Tribal Monitor(s). The duration of the construction schedule and Tribal Monitoring shall be determined at this time. • *A contracted Tribal Monitor(s) shall monitor the vegetation grubbing, stripping, grading, trenching, and other ground disturbing activities in the project area surrounding P-09-000807, as indicated on the confidential tribal monitoring exhibit provided by the UAIC to the County. All ground-disturbing activities within such area, including rebuild or previously disturbed, shall be subject to Tribal Monitoring unless otherwise determined unnecessary by the UAIC. A contracted UAIC certified Tribal Monitor shall spot check up to 16 hours per month the ground-disturbing activities within all other areas of the project site.* • *Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites, cultural soils, or objects of potential significance are identified. The temporary pause/diversion, shall be of an adequate*	

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Summary of Impacts and Mitigation Measures

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		duration for the Tribal Representative to examine the resource. • *Appropriate treatment of TCRs may include but is not limited to:* o *Recordation of the resource(s);* o *Avoidance and preservation of the resource(s); and* o *Recovery and reburial of the resource(s) onsite or in a feasible off-site location in a designated area subject to no further disturbance. The location of the reburial shall be acceptable to the UAIC.* • *To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.* • *The Tribal Monitor(s) shall wear the appropriate safety equipment while on the construction site.* • *The Tribal Monitor, in consultation with the UAIC THPO and the project proponent, shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.*	

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Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *In the event the Tribal Monitor does not report to the job site at the scheduled time after receiving 24-hour business day notice, construction activities may proceed without tribal monitoring. At no time, regardless or absence of a Tribal Monitor, shall suspected TCRs be mishandled or disrespected.* • *The CEQA lead agency shall assist with resolution of disagreements between the project proponent/contractor and the Tribe if such occurs on the project.* *4.12-1(c)* <u>*Tribal Spot Monitoring Related to 60.5-acre Project Site.*</u> *The project proponent or their construction contractor shall comply with the following measure to assist with identification of TCRs at the earliest possible time during project-related earthmoving activities. These measures shall be included as notes on the project improvements plans prior to their approval by the County.* • *The project proponent shall contact the UAIC THPO (thpo@auburnrancheria.com) at least 2 to 3 months prior to project ground-disturbing activities to retain the services of a UAIC Certified Tribal Monitor(s). The duration of the construction schedule and Tribal Monitoring shall be determined at this time.*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *A contracted UAIC Certified Tribal Monitor(s) shall spot check up to 16 hours per month the ground disturbing activities within the 60.5-acre project site.* • *Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites, cultural soils, or objects of potential significance are identified. The temporary pause/diversion shall be of an adequate duration for the Tribal Representative to examine the resource.* • *Appropriate treatment of TCRs or other cultural finds may include but is not limited to:* o *Recordation of the resource(s);* o *Avoidance and preservation of the resource(s); and* o *Recovery and reburial of the resource(s) onsite or in a feasible off-site location in a designated area subject to no future disturbance. The location of the reburial shall be acceptable to the UAIC.* • *To track the implementation of this measure, the Tribal Monitor(s) shall*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		document field-monitoring activities on a Tribal Monitor log. • *The Tribal Monitor(s) shall wear the appropriate safety equipment while on the construction site.* • *The Tribal Monitor, in consultation with the UAIC THPO and the project proponent, shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.* • *In the event the Tribal Monitor does not report to the job site at the scheduled time after receiving 24 hour business day notice, construction activities may proceed without tribal monitoring. At no time, regardless of the presence or absence of a Tribal Monitor, shall suspected TCRs be mishandled or disrespected.* • *The CEQA lead agency shall assist with resolution of disagreements between the project proponent/contractor and the Tribe if such occurs on the project.* *4.12-1(d)* *<u>Unanticipated Discoveries</u>. If any suspected TCRs, including but not limited to cultural features, midden/cultural soils, artifacts, exotic rock (non-native), shell, bone, shaped stones, or ash/charcoal are discovered by any person during construction activities including ground disturbing activities, all*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		work shall pause immediately within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. Work shall cease in and within the immediate vicinity of the find regardless of whether the construction is being actively monitored by a Tribal Monitor, cultural resources specialist, or professional archaeologist. A Tribal representative and El Dorado County Planning and Building Department shall be immediately notified, and the Tribal Representative in coordination with El Dorado County shall determine if the find is a TCR (PRC Section 21074) and the Tribal Representative shall make recommendations for further evaluation and treatment as necessary. *The culturally affiliated Tribe shall consult with the County to (1) identify the boundaries of the new TCR and (2) if feasible, identify appropriate preservation in place and avoidance measures, including redesign or adjustments to the existing construction process, and long-term management, or 3) if avoidance is infeasible, a reburial location in proximity of the find where no future disturbance is anticipated. Permanent curation of TCRs will not take place unless approved in writing by the culturally affiliated Tribe.* *The construction contractor(s) shall provide secure, on-site storage for culturally sensitive soils or objects*	

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		that are components of TCRs that are found or recovered during construction. Only Tribal Representatives shall have access to the storage. Storage size shall be determined by the nature of the TCR and can range from a small lock box to a conex box (shipping container). A secure (locked), fenced area can also provide adequate on-site storage if larger amounts of material must be stored. *The construction contractor(s) and El Dorado County shall facilitate the respectful reburial of the culturally sensitive soils or objects. This includes providing a reburial location that is consistent with the Tribe's preferences, excavation of the reburial location, and assisting with the reburial, upon request.* *Work at the TCR discovery location shall not resume until authorization is granted by the Lead Agency in coordination with the culturally affiliated Tribe.* *If articulated or disarticulated human remains, or human remains in any state of decomposition or skeletal completeness are discovered during construction activities, the County Coroner and the culturally affiliated Tribe shall be contacted immediately. Upon determination by the County Coroner that the find is Native American in origin, the Native American Heritage Commission will assign the Most Likely Descendent who will work with the*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		project proponent to define appropriate treatment and disposition of the burials. *4.12-1(e) Implement Mitigation Measure 4.4-2(a).*	
4.12-2 Cause a cumulative loss of tribal cultural resources.	LS	*None required.*	N/A
4.13 Utilities and Service Systems			
4.13-1 Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	LS	*None required.*	N/A
4.13-2 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, single dry, and multiple dry years.	LS	*None required.*	N/A
4.13-3 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	*None required.*	N/A

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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.			
4.13-4	**Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste.**	LS	*None required.*	N/A
4.13-5	**Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout of the El Dorado County General Plan.**	LS	*None required.*	N/A
			4.14 Wildfire	
4.14-1	**Substantially impair an adopted emergency response plan or emergency evacuation plan.**	LS	*None required.*	N/A
4.14-2	**Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from**	S	*Project Development Area and Project Buildout* *4.14-2 In conjunction with the submittal of and prior to the approval of Improvement Plans, the applicant shall submit a Vegetation Management Plan (VMP) for review and approval by CAL FIRE, EDHFD, and the*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
a wildfire or the uncontrolled spread of a wildfire.		*El Dorado County Planning and Building Department. The VMP shall identify roles, responsibilities, and financial resources to ensure successful implementation. The VMP shall be implemented by the project developer and maintained in perpetuity and may include, but not necessarily be limited to, the following:* • *Management of the Open Spaces/Oak Woodlands During Project Construction or Adjacent Construction:* o *Prior to construction activities, all Open Space/Oak Woodland boundaries shall be designated by placing high visibility construction fencing and/or silt fencing. Fencing shall be maintained in good condition until permanent post and cable fencing can be installed; and* o *If applicable, prior to working within Open Space/Oak Woodland areas adjacent to wetlands, a qualified wetland biologist shall flag the wetland boundary and monitor construction activities to prevent encroachment into the wetland areas.*	

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		o *All construction machinery shall be equipped with CAL FIRE-approved spark arrestors.* • *Open Space/Oak Woodland Maintenance* o *Ongoing Fuel Load Management activities shall focus on areas close to homes or on borders, as approved by the County and include activities to mow annual grasses, remove dead and/or diseased trees, snags, and debris, limb live trees up to a height of 10 feet above ground where feasible, and remove understory fuels over one foot in height, where feasible. The use of goats shall be the preferred method of reducing vegetation materials; alternative methods, such as plastic string weed trimmers or other County-approved equipment may be acceptable, but shall be limited to the maximum extent feasible. Chipping of material shall be permitted. Chipped material shall be removed from the site unless otherwise approved by the County. Prescribed burning shall be*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		prohibited and herbicide use shall not be allowed within the fuel load reduction area; and o *Annual monitoring memos shall be submitted to the County by June 30 of each year. The memos shall include, at a minimum, the following:* ➢ *An assessment of dead vegetative matter (thatch) and management recommendations, if needed; and* ➢ *An evaluation of general site conditions and recommendations for remedial fuel reduction actions to be included in the annual monitoring memo.*	
4.14-3 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.	LS	*None required.*	N/A

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4.14-4 Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	LS	*None required.*	N/A
4.14-5 Increase in wildfire risk attributable to the proposed project, in combination with cumulative development.	LS	*None required.*	N/A

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3. PROJECT DESCRIPTION

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3.1 INTRODUCTION

Section 15125 of CEQA Guidelines requires an environmental impact report (EIR) to include a description of the physical environmental conditions of the project site and the site vicinity, 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. Per 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. Please note that detailed discussions of the existing setting in compliance with CEQA Guidelines Section 15125, specific to each environmental resource area, are included in each corresponding technical chapter of this EIR.

The Project Description chapter of the EIR provides a comprehensive description of the proposed Town and Country Village El Dorado Project (proposed project). A detailed description of the project location, the project objectives, the project components, and required public approvals is presented below.

3.2 PROJECT LOCATION AND SETTING

The following section includes a description of the project's location and existing setting, as well as the existing land use designations in the project vicinity.

The project site is located in El Dorado County, California, approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road (see Figure 3-1). The approximately 60.5-acre site is identified by Assessor's Parcel Numbers (APNs) 119-080-12, -021 and -023. The project site is located in the southern central portion of the Bass Lake Hills Specific Plan (BLHSP); the northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region. Surrounding land uses include undeveloped land and rural residences within the BLHSP to the north; rural residences to the west; the El Dorado Hills Fire Department Station 86 to the northwest; undeveloped land and rural residences to the south, across US 50; and undeveloped land to the east, with the Holy Trinity Parish and School located farther east (see Figure 3-2). It should be noted that in recent years, multiple Tentative Subdivision Maps have been approved for properties within the BLHSP, north of the project site, which are undergoing development.

The BLHSP designates the project site as Low Density Residential Planned Development with a maximum allowable density of 0.2 dwelling units per acre (du/ac) (L.2-PD) south of Country Club Drive and Low Density Residential Planned Development with a maximum allowable density of 0.7 du/ac (L.7-PD) north of Country Club Drive. The project site is zoned Residential Estate-10 acres (RE-10).

Figure 3-1
Regional Project Location

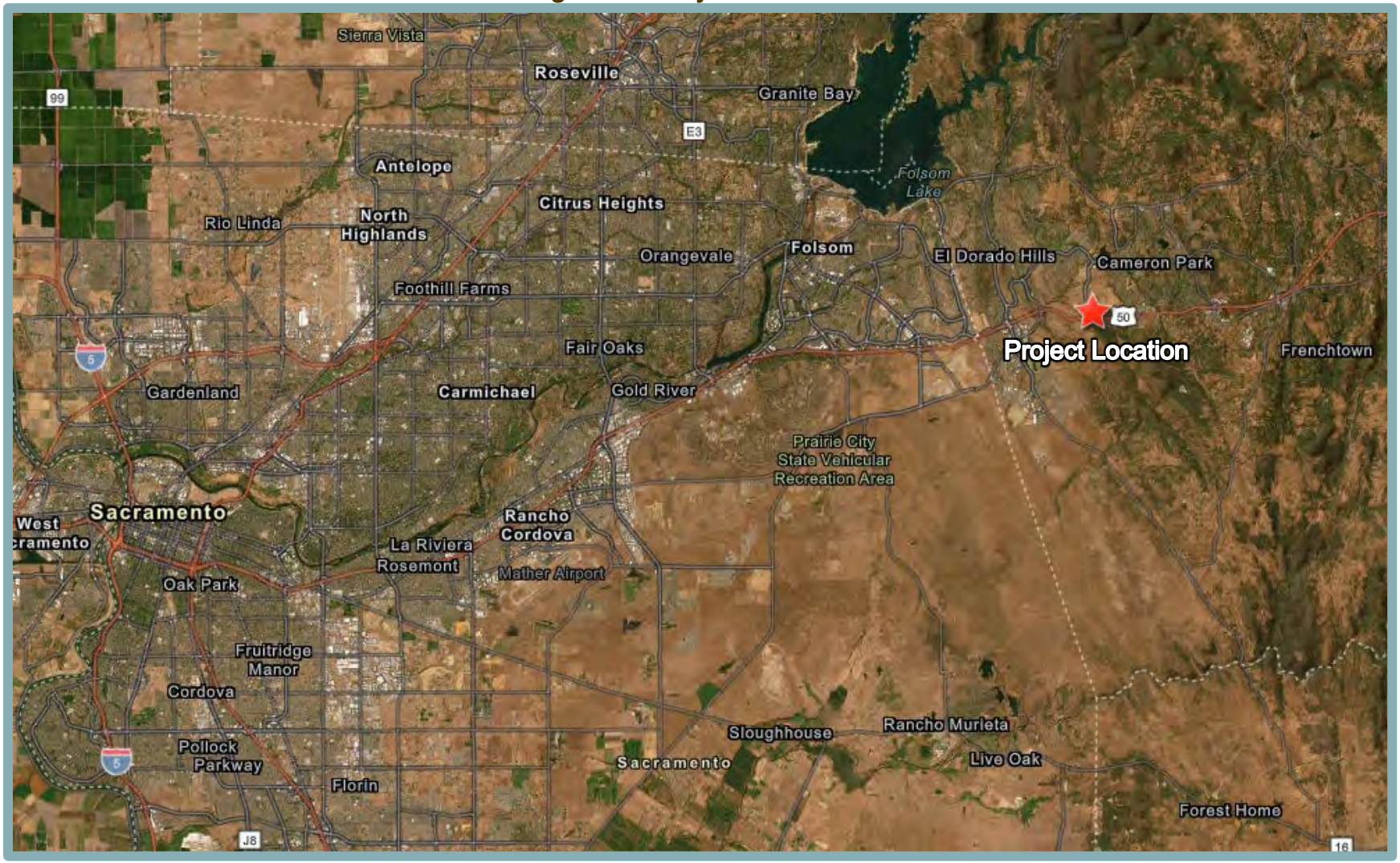


Figure 3-2
Project Site Boundaries



3.3 PROJECT OBJECTIVES

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

1. Create a high-quality mixed-use development that combines commercial and residential facilities in a single project that is consistent with and fulfills many of the goals, objectives, and policies of the El Dorado County General Plan.
2. Emphasize the preservation of open space, existing oak woodland resources, natural topography, intermittent streams, and drainages consistent with the policies of the Bass Lake Hills Specific Plan.
3. Provide on-site public hiking, biking, and equestrian trails complimentary to and connecting the existing and future trail systems within the Bass Lake Hills Specific Plan area.
4. Preserve and protect the remnants and alignment of the historic Lincoln Highway and acknowledge and promote the history of the 1800's Old Wagon trail "The Clarksville Toll Road" as a Class 1 bike path and modern roadway.
5. Provide the opportunity for the development of a range of housing types and densities in proximity to US 50 and other transportation corridors in the area.
6. Develop a mixed-use project that reduces traffic impacts and vehicles miles traveled through the provision of on-site workforce housing for those employed in the proposed project.
7. Provide four and five-star rated lodging and reception facilities, together with related commercial retail uses and restaurants to serve the existing community neighborhoods and the touring public, thereby creating a distinctive destination resort.

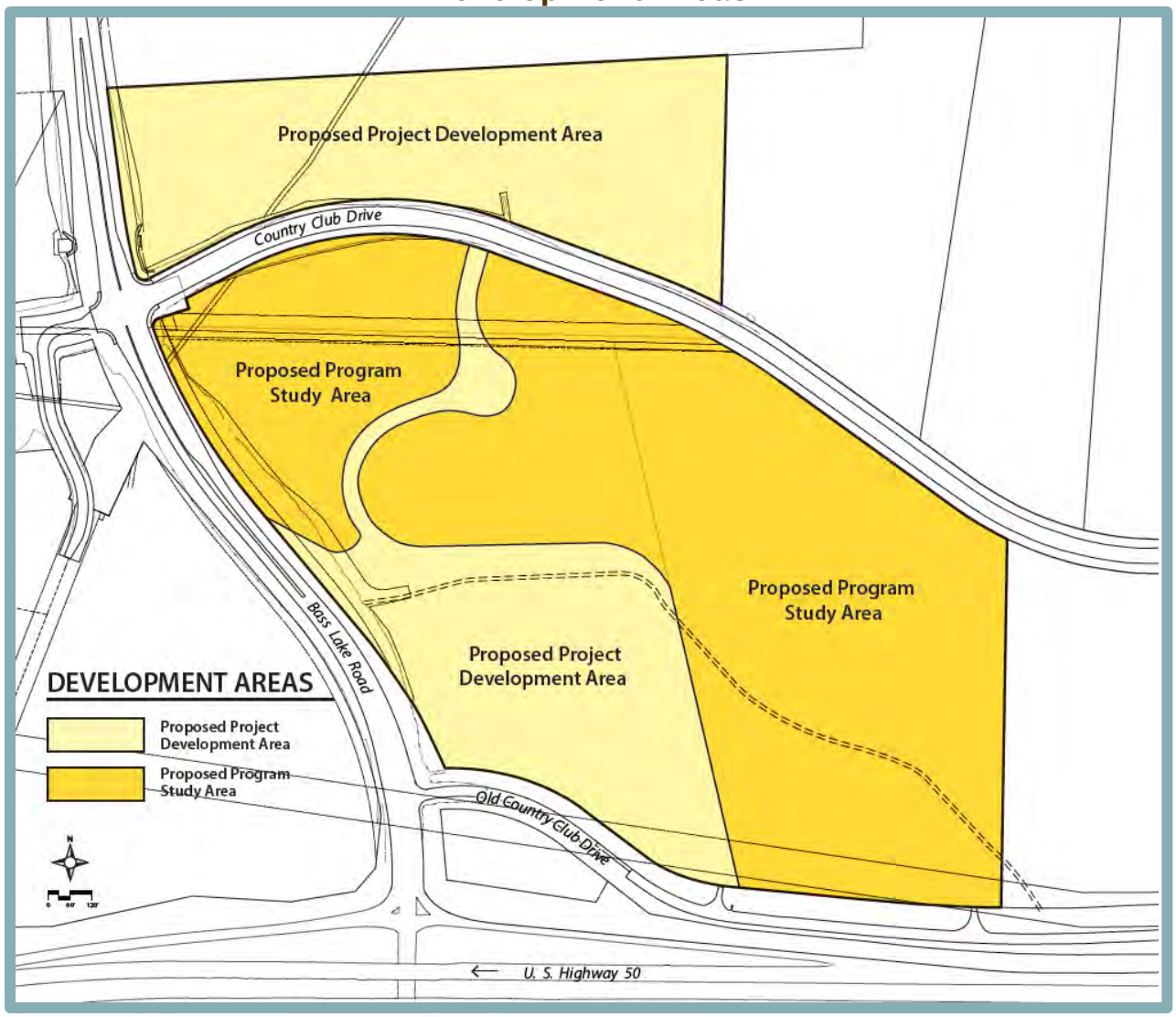
3.4 PROJECT COMPONENTS

The project site consists of two areas: the Project Development Area consists of the northernmost and southernmost 30.3 acres of the project site, and would be developed with two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended stay basis, which would require a conditional use permit (see Figure 3-3). The Program Study Area consists of the central and easternmost 30.2 acres of the project site and may include future development of additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts. For environmental analysis purposes, the buildout of the Project Development Area of the project site will be evaluated at a project level. Buildout of the Program Study Area will be evaluated at a program level based on the potential allowable uses, building areas, and required parking described in the BLHSP Amendment document. The proposed project would require approval of a General Plan Amendment, BLHSP Amendment, Rezone, and Tentative Subdivision Map, as well as a Conditional Use Permit (CUP) and other responsible agency approvals. The aforementioned project components are discussed in further detail below.

General Plan Amendment

The General Plan includes the portion of the project site, north of Country Club Drive, in the Community Region, and the area south of Country Club Drive in the Rural Region. The proposed General Plan Amendment would modify the Community Region boundary to include the whole project site in the Community Region.

Figure 3-3
Development Areas



BLHSP Amendment

The existing BLHSP land use designations for the project site are L.7-PD and L.2-PD (see Figure 3-4). The BLHSP designates the portion of the project site, north of Country Club Drive, as L.7-PD, and the portion south of Country Club Drive is designated L.2-PD. The requested BLHSP Amendment would establish three new land use designations for the BLHSP: Commercial (C), Multi-Family Residential (MFR), and Open Space (OS). These land use designations would be allocated to the project site as follows: 26.2 acres of C, 23 acres of MFR, and 7.6 acres of OS.

In addition to changing the land use designations of the project site, the BLHSP Amendment would include revisions to the BLHSP itself in order to accommodate the proposed project. For example, Table 3-1, Land Use Summary Table, of the BLHSP would be amended to reflect the new land uses of the project site, and Figure 4-1, Circulation Plan, would be updated to include the proposed roadway improvements associated with the project.

As part of the BLHSP Amendment, a Fiscal Impact Analysis and update to the Bass Lake Hills Specific Plan Public Facilities Financing Plan (PFFP) would be completed. The PFFP sets forth a strategy to finance the backbone infrastructure and other public facilities required to serve the proposed land uses in the BLHSP.

Rezone

The current zoning designation for the entire project site is RE-10. The proposed project would require the approval of a Rezone from RE-10 to the following El Dorado County zoning districts: Community Commercial (CC), Multi-Unit Residential (RM), and Open Space (OS) (see Figure 3-5).

Additionally, as required by the BLHSP, the Planned Development Combining District (-PD) suffix would be added to all the zoning district designations listed above.

Tentative Subdivision Map

As defined in Section 120.48.010 of the El Dorado County Code, prior to any division of lands, an applicant must file for approval with the El Dorado County Department of Planning and Building. The proposed project would require the approval of a Tentative Subdivision Map which would subdivide the project site into 16 lots (see Figure 3-6). Parcels 1 through 5, located north of Country Club Drive, would be designated for residential development. Parcels 12 through 14, located in the southern portion of the project site, would be developed with commercial uses. In addition, a private roadway is proposed to bisect the center of the project site, connecting the northern and southern portions.

The remaining parcels are not currently proposed for development; however, the EIR will evaluate potential future development on these parcels consistent with the land use designations being requested (See Table 3-1 for more information).

Figure 3-4
Existing and Proposed BLHSP Land Use Designations

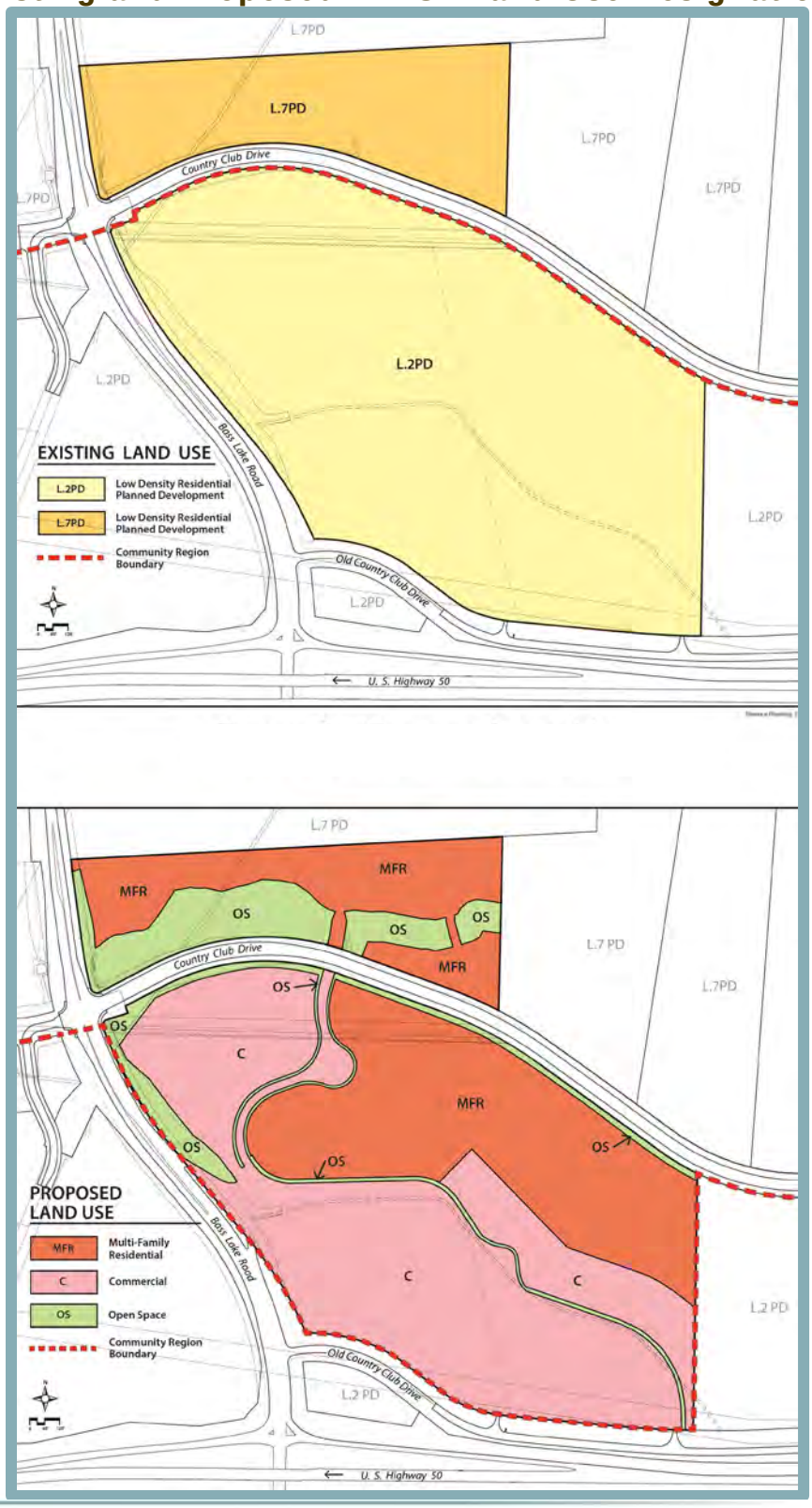


Figure 3-5
Existing and Proposed Zoning Designation

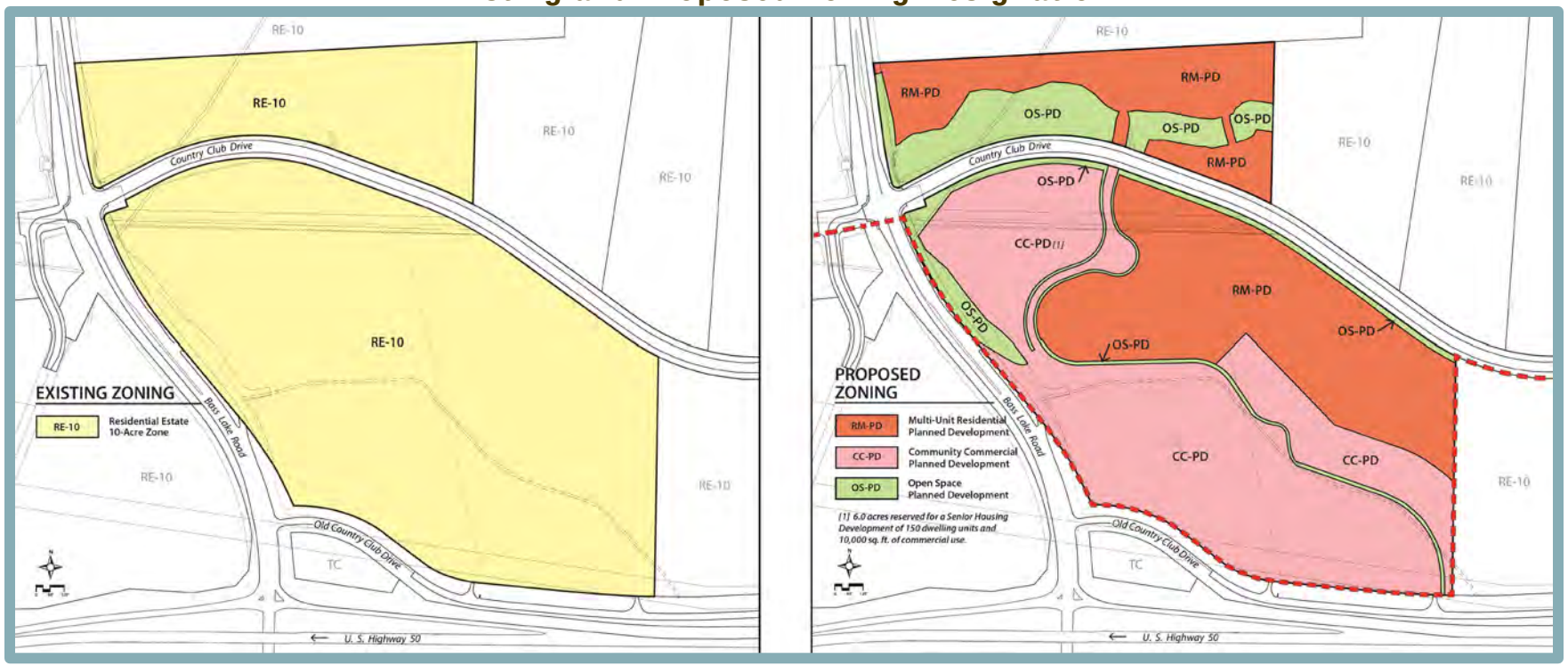


Figure 3-6
Tentative Subdivision Map

TENTATIVE SUBDIVISION MAP

TOWN & COUNTRY VILLAGE EL DORADO

A PORTION OF PARCELS 1 AND 3 AND ALL OF PARCEL 2 AS SHOWN
ON PARCEL MAP P.M. 48-80 LOCATED IN THE SOUTH 1/2 OF SECTION 6
AND THE NORTHEAST 1/4 OF SECTION 7, T. 9 N., R. 9 E.

COUNTY OF EL DORADO SHEET 1 OF 1 STATE OF CALIFORNIA

OWNER OF RECORD
MOHANNA MH
1025 9th STREET SUITE 205
SACRAMENTO, CA 95814

APPLICANT
JOSH PANE
1123 J STREET 3rd FLOOR
SACRAMENTO, CA 95814

ENGINEER
cta Engineering & Surveying
Civil Engineering • Land Surveying • Land Planning

MAP SCALE
1" = 100'

CONTOUR INTERVAL
CONTOUR INTERVAL = 2 FEET

SOURCE OF TOPOGRAPHY
AERIAL PHOTOGRAPHY

SECTION, TOWNSHIP and RANGE
SECTIONS 6 & 7, T.9N., R.9E. M.D.M.

ASSESSOR'S PARCEL NUMBERS
A.P.N. 119-080-023, 119-080-021, 119-080-012

PROPOSED ZONING
CC-PD, RM-PD, OS-PD

PRESENT ZONING
RE-10

TOTAL AREA
56.75 ACRES

TOTAL NUMBER OF PARCELS
5 – MULTI FAMILY RESIDENTIAL LOTS
7– COMMERCIAL LOTS
3 – OPEN SPACE LOTS
1 – ROAD LOT
16 LOTS TOTAL
REFER TO (P) ZONING

MINIMUM LOT AREA
0.38 Ac.

WATER SUPPLY and SEWAGE DISPOSAL
EL DORADO IRRIGATION DISTRICT/ON SITE SEPTIC

PROPOSED STRUCTURAL FIRE PROTECTION
EL DORADO HILLS COUNTY WATER DISTRICT (FIRE DEPARTMENT)

DATE OF PREPARATION
MAY, 2023

PHASING PLAN NOTICE
THE SUBDIVIDER MAY FILE MULTIPLE FINAL MAPS FOR THIS PROJECT. THE SUBDIVIDER SHALL NOT BE REQUIRED TO DEFINE THE NUMBER OR CONFIGURATION OF THE PROPOSED MULTIPLE FINAL MAPS. (PER THE SUBDIVISION MAP ACT, SECTION 66456.1)

ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THE LAND DEVELOPMENT KNOWN AS "TOWN & COUNTRY VILLAGE EL DORADO" OF THE "BASS LAKE HILLS SPECIFIC PLAN" HAS BEEN DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS AND GUIDELINES ESTABLISHED BY THE COUNTY OF EL DORADO.

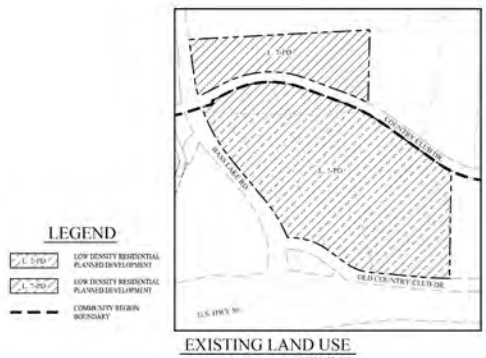
DAVID R. CROSARIOL R.C.E. 34520 DATE

SCALE:1"=100'

VICINITY MAP
NOT TO SCALE



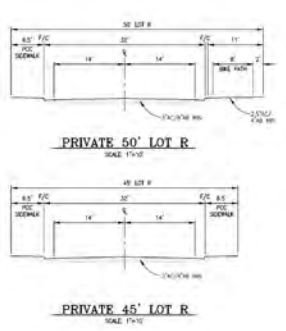

FIRE HYDRANT LOCATION DIAGRAM
SCALE: 1" = 400'

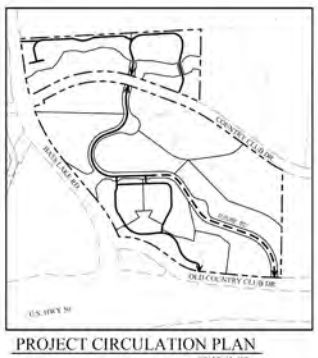


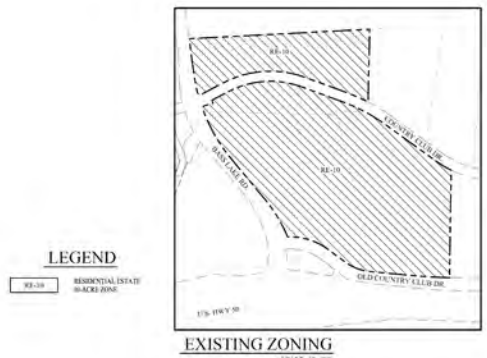
EXISTING LAND USE
SCALE: 1" = 400'



PROPOSED LAND USE
SCALE: 1" = 400'




PROJECT CIRCULATION PLAN
SCALE: 1" = 400'



EXISTING ZONING
SCALE: 1" = 400'



PROPOSED ZONING
SCALE: 1" = 400'

PLANNING COMMISSION: _____
APPROVAL/DENIAL DATE: _____
BOARD OF SUPERVISORS: _____
APPROVAL/DENIAL DATE: _____

Table 3-1
Proposed Land Use Summary

Land Use Designation	Gross Area (acres)	Hotel Units	Building Area (square feet)	Residential Dwelling Units	Density Range (du/ac)	Floor-to-Area Ratio[4]
Development Area						
Multi-Family Residential	7.9	-	-	112	12-24	-
Commercial[1]	14.3	300	181,000	-	-	0.29
Open Space[3]	4.4	-	-	-	-	-
Major Circulation[2]	3.7	-	-	-	-	-
Subtotal	***30.3***	***300***	***181,000***	***112***	**-**	**-**
Program Study Area						
Multi-Family Residential	15.1	-	-	352	12-24	-
Commercial[1,5]	11.9	-	90,000	350	22-30	0.04 and 0.28
Open Space	3.2	-	-	-	-	-
Subtotal	***30.2***	**-**	***90,000***	***702***	**-**	**-**
Total	**60.5**	**300**	**271,000**	**814**	**-**	**-**

Notes:
1. Mixed Use Development is allowed per General Plan Policies 2.1.1.3 and 2.1.2.5.
2. New Country Club Drive I.O.D. right-of-way area included in total project area.
3. Consisting of 38 percent of the Project Development Area north of Country Club Drive.
4. Refer to Table 130.22.030 – Commercial Zones Development Standards of the El Dorado County Code.
5. Five acres of commercial land use reserved for a mixed use senior housing development of 150 units and 10,000 sf of commercial development. 6.9 acres of commercial land use reserved for a mixed use development project consisting of 80,000 sf of commercial use and 200 apartment/condominium residential dwelling units.

Site Plan

Buildout of the Project Development Area of the project site would include two 150-room hotels, 112 residential cottages, retail uses, restaurants, an event center/museum, recreational amenities, and parking lots (see Figure 3-7). A summary of the proposed land uses is included in Table 3-1. Additionally, the Project Development Area would be developed with internal roadways, a new Class I Bicycle Path, and pedestrian trails. The proposed development is discussed in further detail below. As previously discussed, development within the Program Study Area of the project site is not currently proposed; however, a maximum buildout scenario is included for program level analysis in the EIR.

Hotels

The hotel component of the proposed project would consist of two, five-story structures totaling 160,000 square feet (sf) (see Figure 3-8 and Figure 3-9). Both hotels would share centralized facilities in the Event Center, including two restaurants; however, each hotel would be owned and operated separately. The maximum height of the hotels, as currently designed, could exceed the maximum allowable height established for the CC zoning designation in Figure 130.30.060(a) of the El Dorado County Code by up to 10 feet.

The ground floor of each hotel would include retail uses and personal services that would operate seven days a week from 8:00 AM to 8:00 PM. Each hotel would include approximately 12,800 sf of retail area. The second floor of each hotel would include guest rooms, as well as large outdoor balconies with space for tables and seating, and access to a shared swimming pool. The remaining floors of each hotel would be comprised of guest rooms. Each hotel would contain 150 guest rooms, for a total of 300 guest rooms.

Figure 3-7
Overall Site Plan

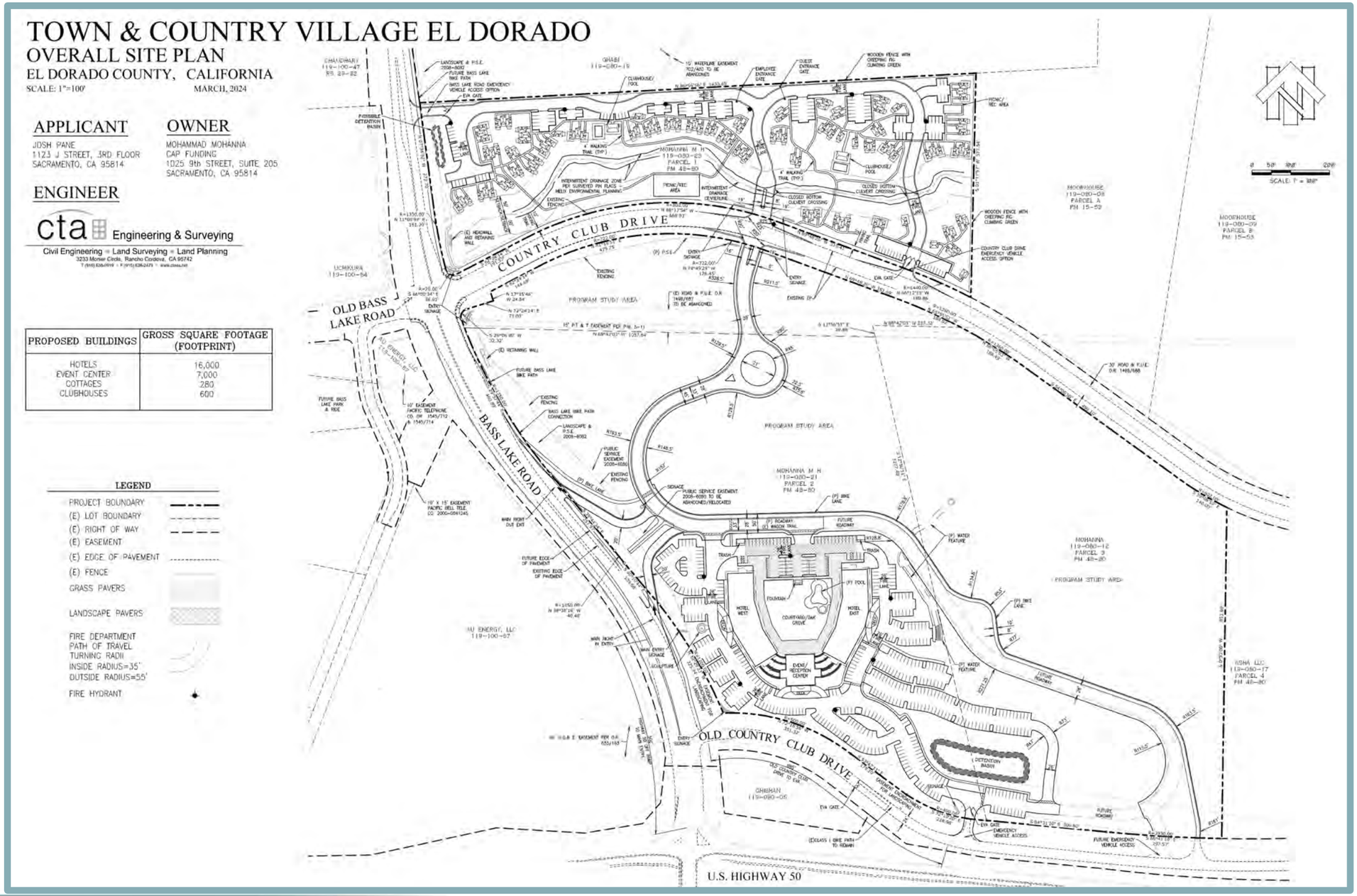
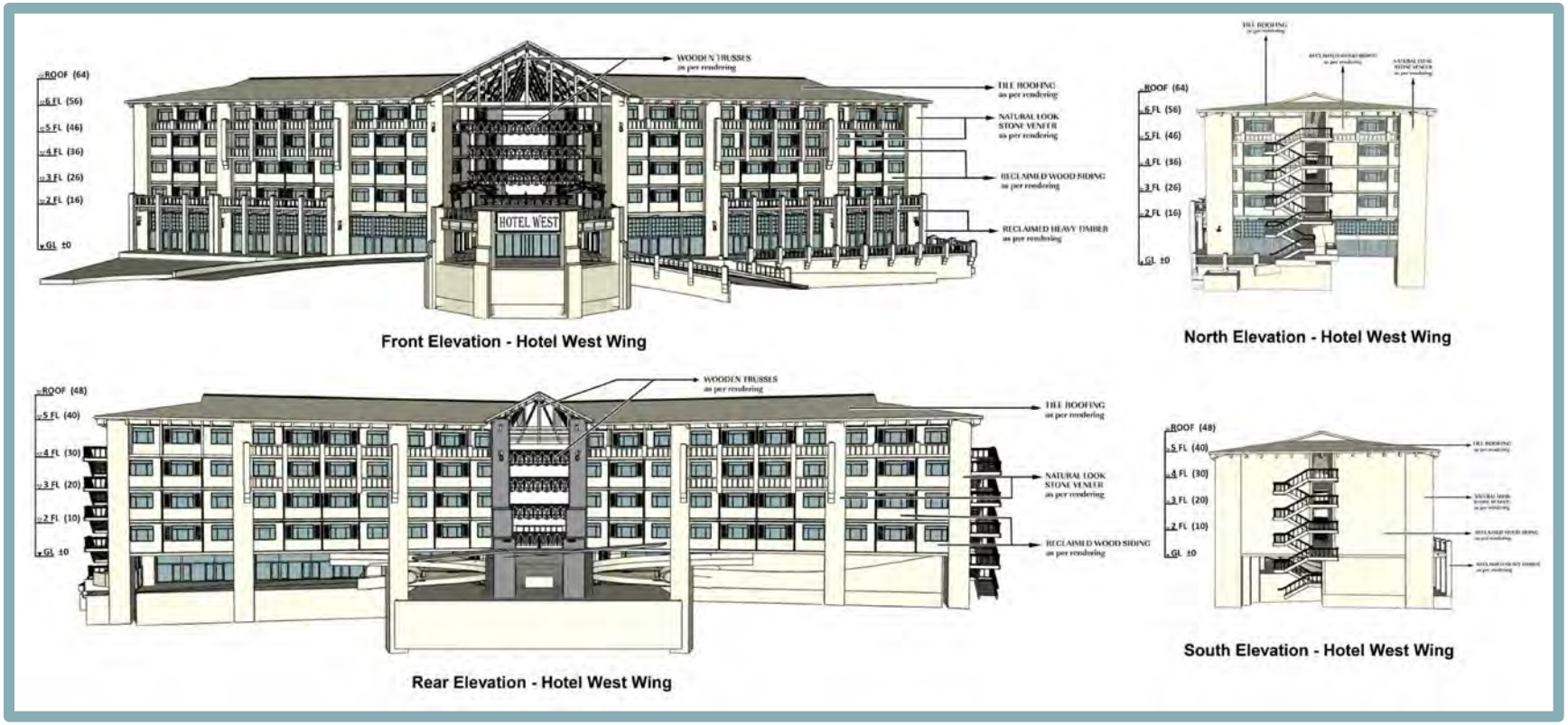


Figure 3-8
Hotel East Elevations



Figure 3-9
Hotel West Elevations



Event Center/Museum

The Event Center/Museum would be a three-story structure consisting of 21,000 sf; each floor would be 7,000 sf in size (see Figure 3-10). The building height could exceed the maximum allowable height established for the CC zoning designation in Figure 130.30.060(a) of the El Dorado County Code by up to 10 feet.

The first floor of the Event Center/Museum would consist of two restaurants. The restaurants would operate from 7:00 AM to 10:00 PM, with a maximum capacity of 120 patrons at each restaurant. The second floor would be a venue for weddings, receptions, conferences, and family gatherings.

The second floor would include a south-facing outdoor balcony with space for tables and seating; the north side of the second floor would provide direct access to the oak grove terraces, where dining and outdoor music events would take place. The event center would operate between one and two days per week from 8:00 AM to midnight with a variable capacity of between 50 and 300 persons.

The third floor would include a museum focusing on the gold rush era, with an emphasis on the culture and history of the early settlers, as well as local Native American history should a tribal government request to be included. The museum would be open for visitors one to two days per week from 10:00 AM to 5:00 PM, with 50 to 100 anticipated visitors per day.

Residential Cottages

The northernmost 7.9-acre portion of the project site, located north of Country Club Drive, would be developed with a total of 112 residential cottage units; 56 units would be deed restricted for hotel employee housing, and the remaining 56 units would be available for rent on a daily or extended stay basis, which would require a conditional use permit. Each cottage unit would be comprised of two stories totaling approximately 560 sf, including a separate bedroom, bathroom, full kitchen facilities, and an outdoor deck (see Figure 3-11).

Circulation and Parking

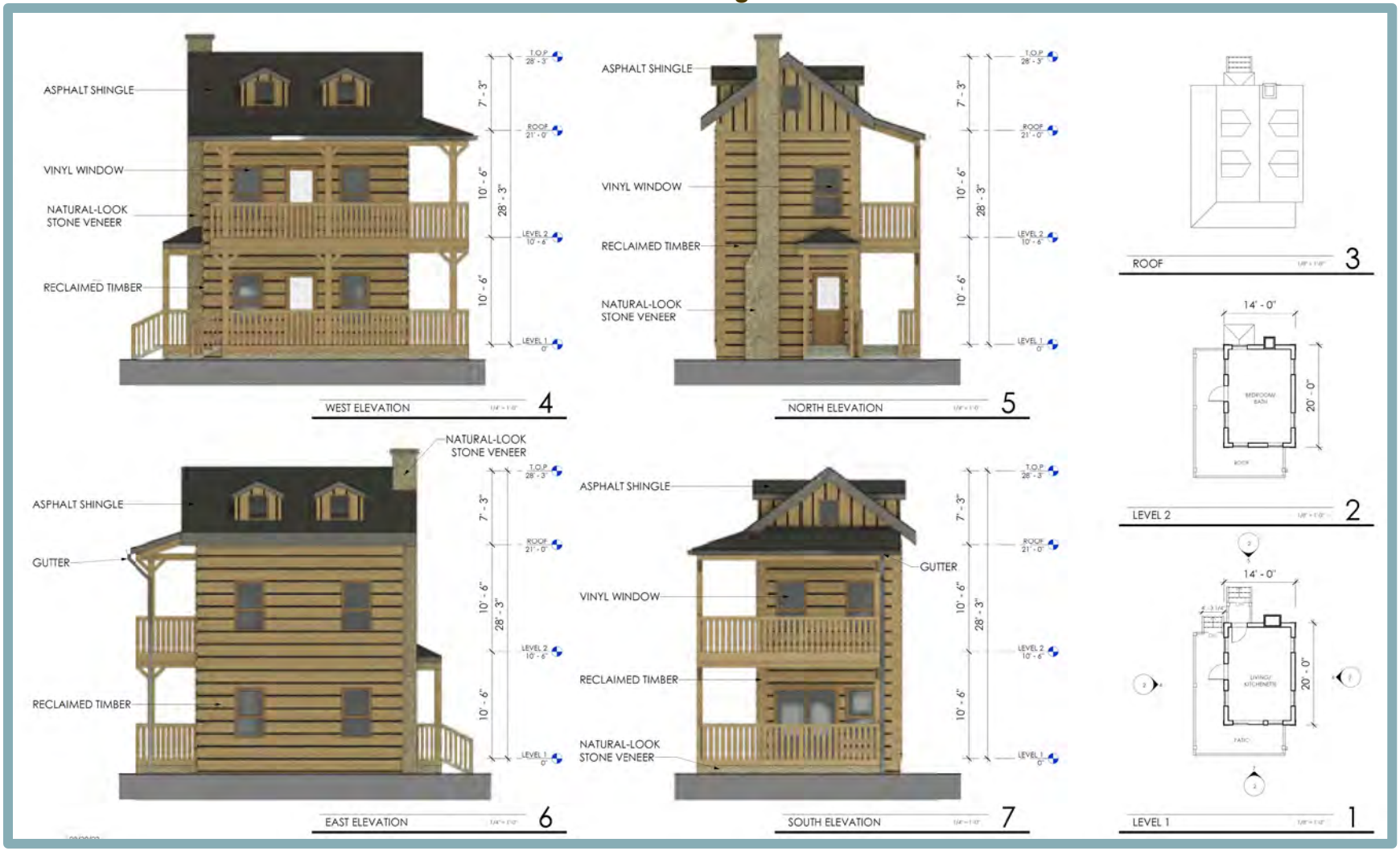
Vehicle access to the project site would be provided by private roads connecting to Bass Lake Road to the west and to Country Club Drive to the north (see Figure 3-12). Country Club Drive would provide primary access to the proposed cottages, which would be located north of Country Club Drive. Bass Lake Road would provide primary access to the Project Development Area south of Country Club Drive, containing the proposed hotels, Event Center/Museum, and restaurants. As part of the Project Development Area improvements, the project would widen Bass Lake Road from two- to 4-lanes (2-lanes each direction), from US 50 to just north of Country Club Drive. This widening project is currently in the County's Capital Improvement Program (CIP) and identified as CIP 36105054. Country Club Drive would also provide a secondary hotel entry to the southerly Project Development Area.

Regarding emergency access, two emergency access connections would be provided to the proposed cottages, as follows: one connection to Bass Lake Road, north of its intersection with Country Club Drive, and one connection to Country Club Drive toward the eastern end of the cottage parcel. The Project Development Area south of Country Club Drive (proposed hotels, Event Center/Museum, and restaurants) would include construction of an emergency access road from Old Country Club Drive, approximately 685 feet east of the intersection of Bass Lake Road and Old Country Club Drive.

Figure 3-10
Event Center / Museum Elevation



Figure 3-11
Residential Cottage Elevation



In addition, as shown in Figure 3-12, a future emergency access road would be constructed further east and connected to Old Country Club Drive should the Program Study Area be developed at a later date.

As part of the project, the existing Class 1 bike path, located on Old Country Club Road south of the project site, would be maintained west to Bass Lake Road. As part of the Project Development Area improvements, the project proposes to expand the Class 1 bike path system by extending the Old Country Club Class 1 bike path north into the site along the historic Clarksville Toll Road alignment (see Figure 3-13). In addition, four-foot walking trails would be constructed in the northern portion of the project site. A Class 1 bike path bridge crossing of Bass Lake Road is also proposed at the primary access and would connect to a BLHSP planned Class 1 bike path on the west side of Bass Lake Road (see Figure 3-14 and Figure 3-15).

An estimated 466 off-street parking spaces would be included for the hotel/event center portion of the proposed project, and 121 off-street parking spaces would be included for the residential cottages. Pending a formal agreement with El Dorado Transit, additional parking may be provided for “off hours/off-days” and weekends at the newly constructed El Dorado Transit Park and Ride facility located at the intersection of Country Club Drive and Bass Lake Road. When special events create additional parking demand, the hotels would provide low emission vehicles, such as shuttle vans and buses, to transport guests to weddings and other events to and/or from parking facilities at local schools and churches.

Utilities

The project would include necessary water, sewer, and drainage infrastructure to serve the proposed project.

Water

The proposed project would require annexation into the El Dorado Irrigation District (EID) service area, which is subject to El Dorado Local Agency Formation Commission (LAFCo) approval. El Dorado LAFCo will serve as a responsible agency for the project, and the EIR will include the information and analysis needed for El Dorado LAFCo to rely upon in order to make their approvals regarding the proposed project. Because EID draws water from Folsom Lake, the annexation of the project site into the EID service area would also require approval from the U.S. Department of the Interior Bureau of Reclamation.

The nearest existing water line is a 24-inch water main located in Bass Lake Road, approximately 2,000 feet north of the project site (see Figure 3-16). Approximately 3,900 linear feet of new 12-inch water line is proposed to connect to the existing 24-inch line and extend south within Bass Lake Road to the project site.

Pursuant to EID’s request, this EIR will also analyze the potential for the proposed off-site water main to be installed within the alignment of the approved Bass Lake North Bike Trail that is planned to extend along the east side of Bass Lake Road from Hollow Oaks Drive to Old Country Club Drive (see Figure 3-17). The Bass Lake North Bike Trail, as approved, would consist of an approximately 1,600-foot-long bike path/multi-use trail.

Figure 3-12
Internal Roadway Network

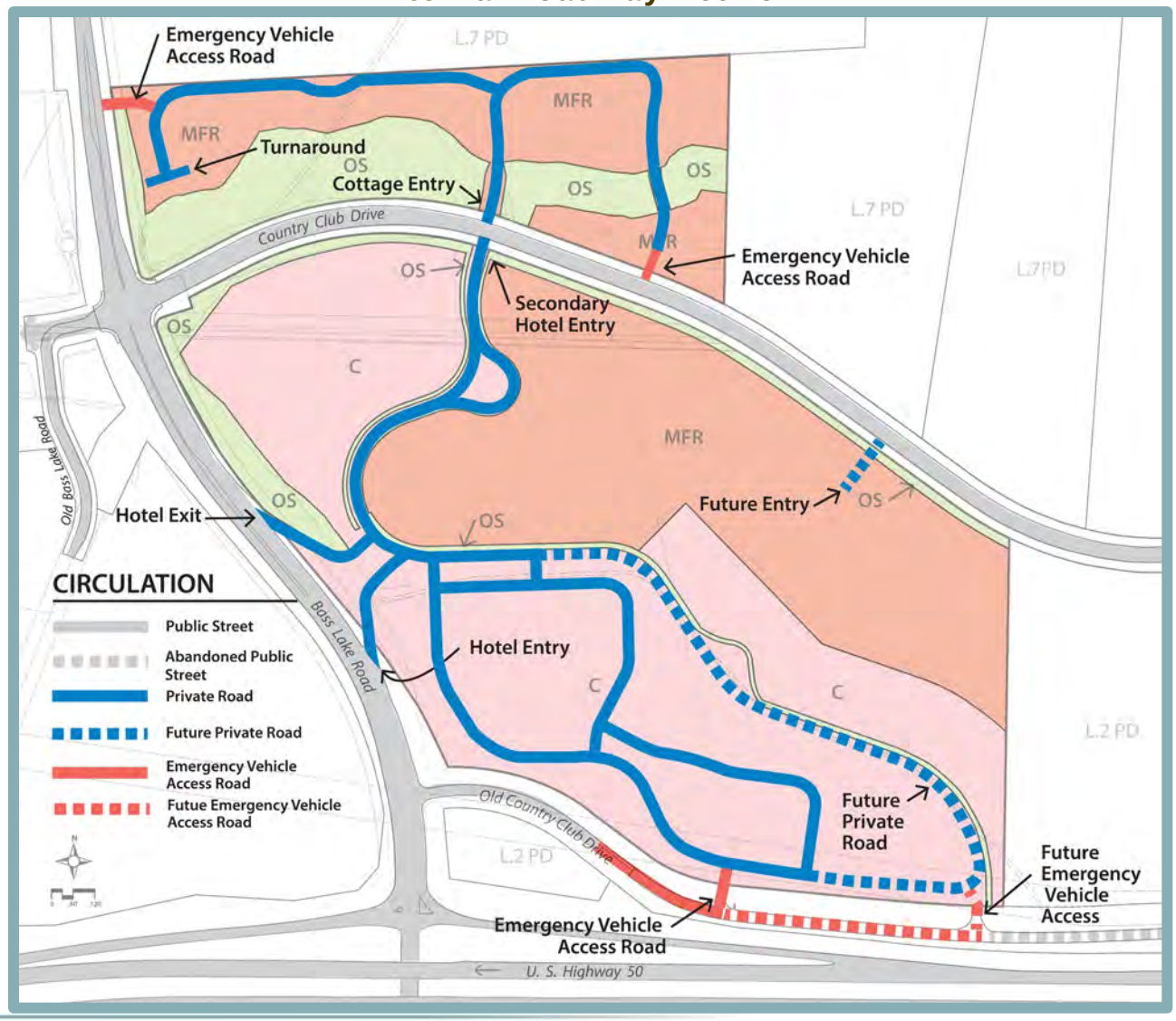


Figure 3-13
Proposed and Existing Bikeways

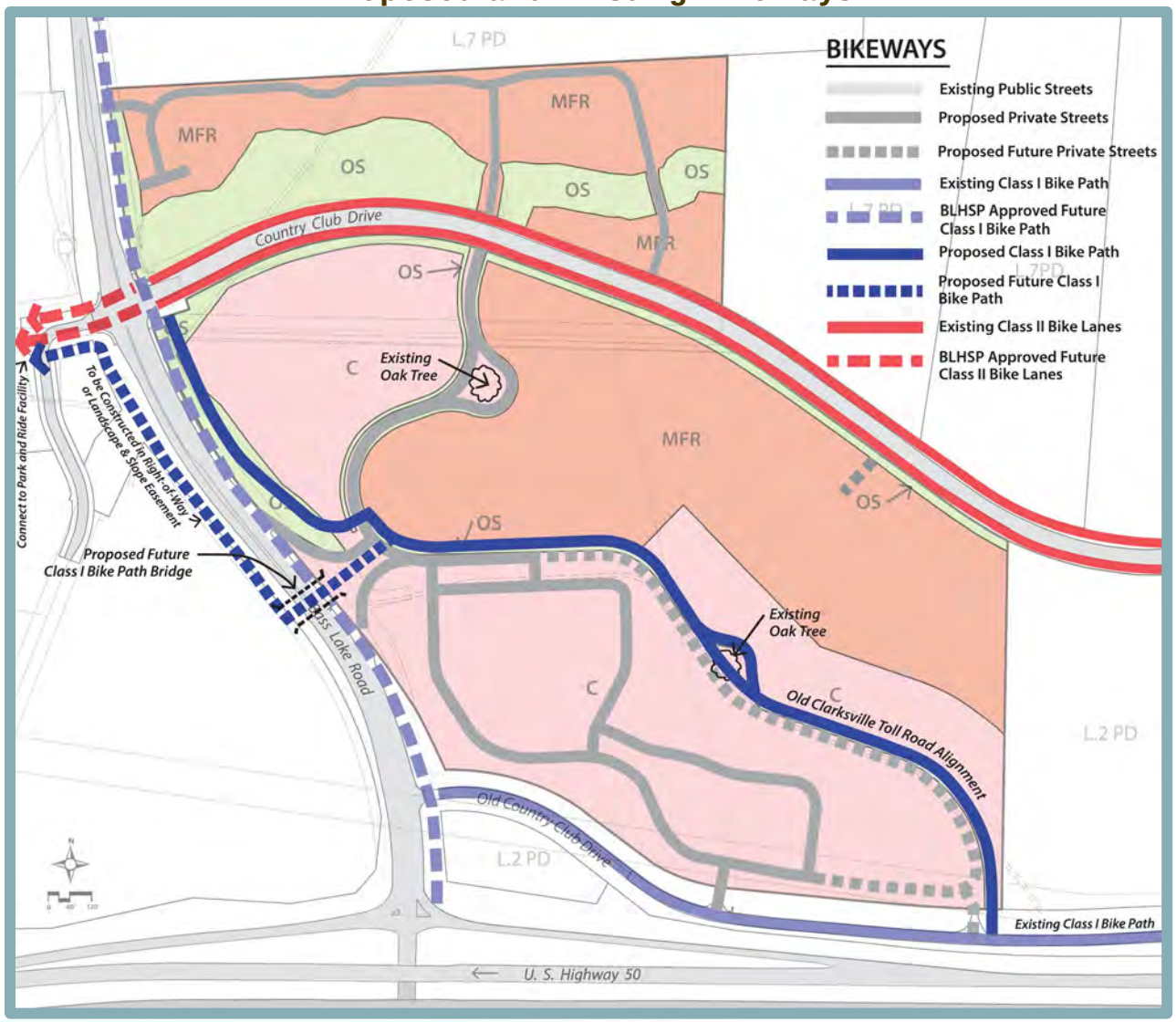


Figure 3-14
Bass Lake Road Cross Sections

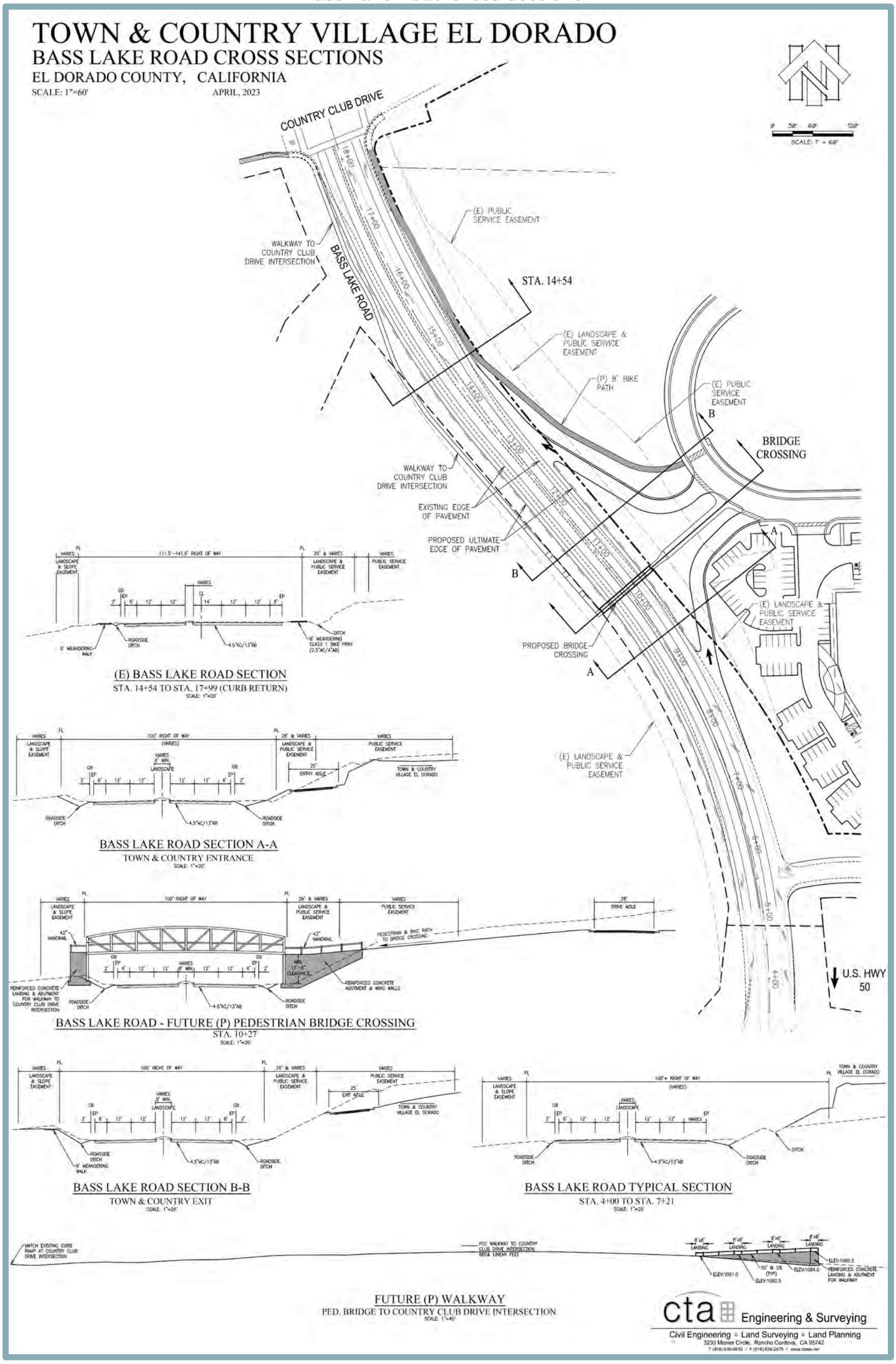


Figure 3-15
Proposed Bike Path Bridge

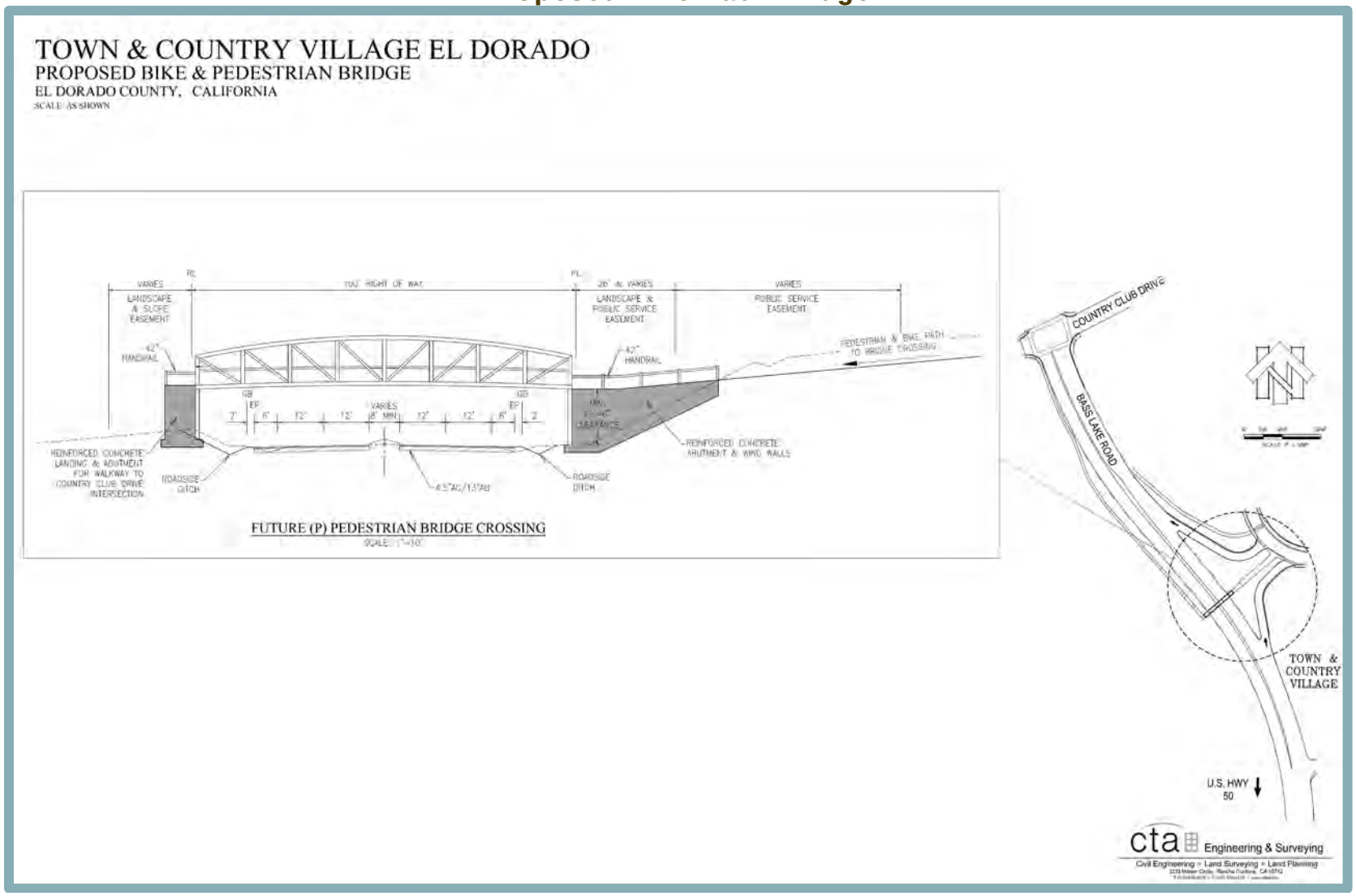


Figure 3-16
Off-Site Water Line

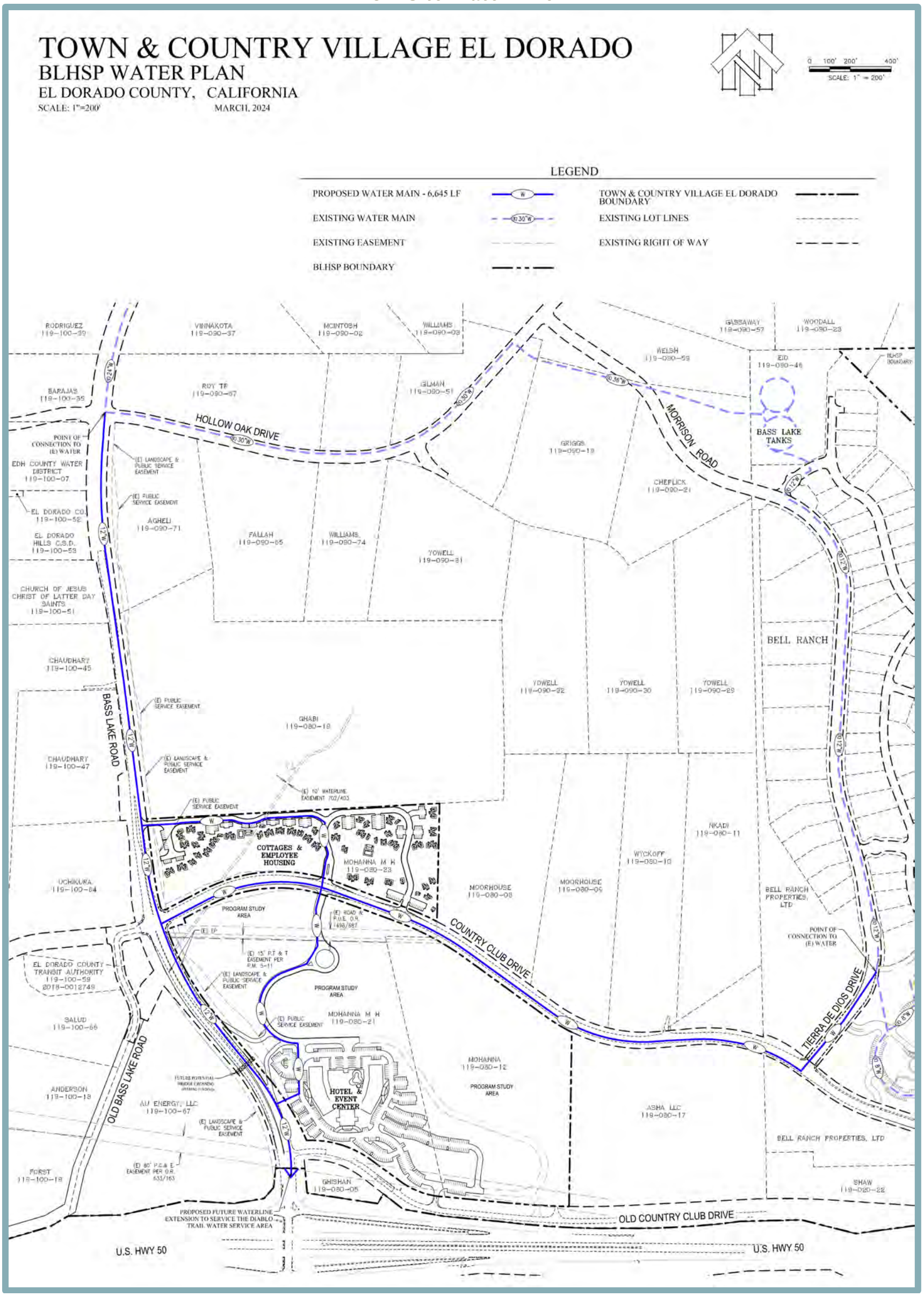
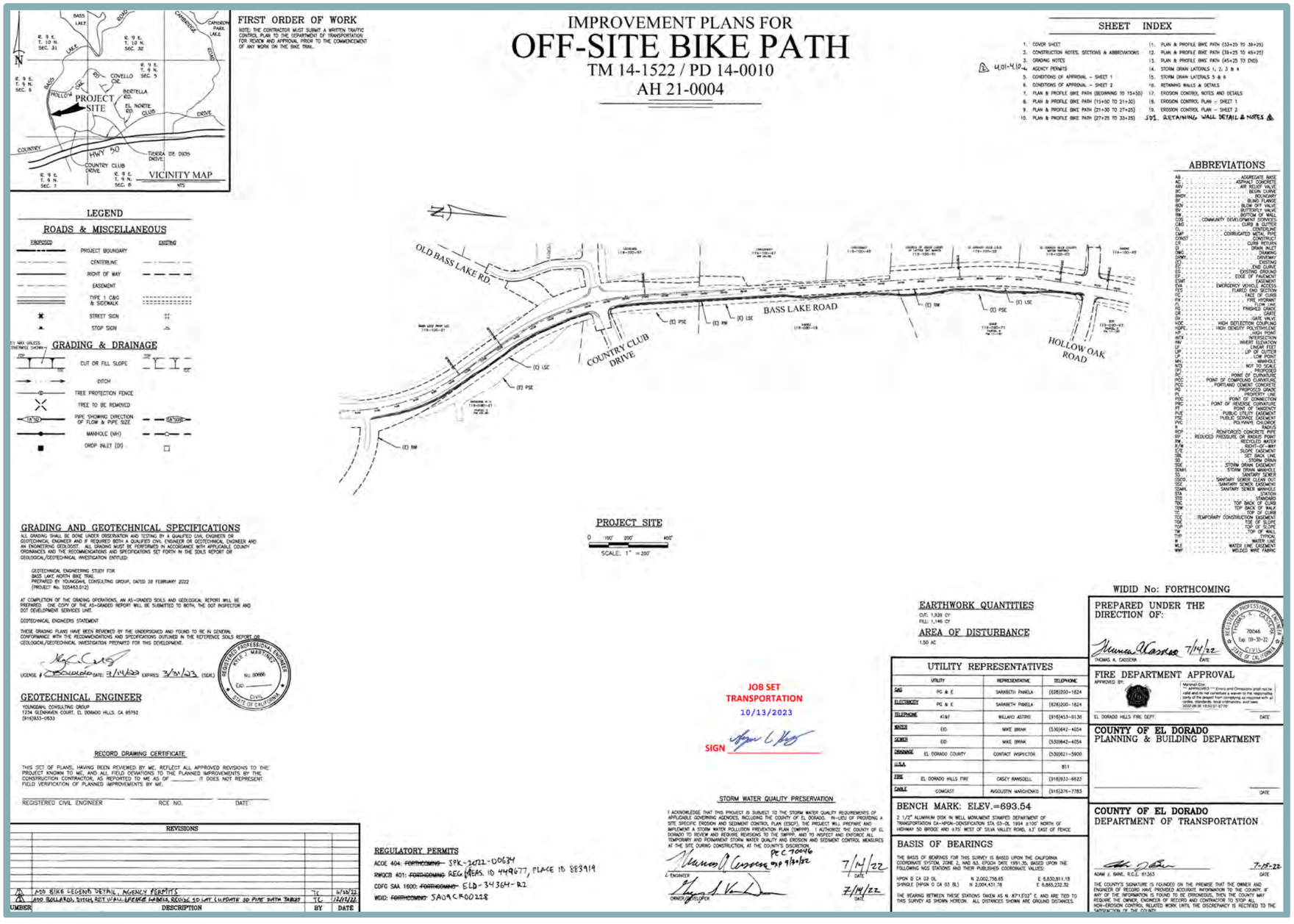


Figure 3-17
Bass Lake North Bike Trail



Sewer

Two alternatives are currently proposed for providing sewer service to the project site. The first alternative consists of the construction of an approximately 10,510-linear-foot BLHSP sewer main connecting the project site to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Road, approximately 1.6 miles to the west (see Figure 3-18). In order to receive public sewer service from EID, the project site would need to be annexed into the EID service area, subject to El Dorado LAFCo approval. As shown in Figure 3-18, two off-site sewer pipe alignments are being considered in this EIR for the public connection to Russi Ranch Road, with substantial overlap between the two alignments. Option 1 would run south along the west side of Bass Lake Road and then west along the southern side of the AU Energy Parcel (APN 119-100-067), within a 40-foot EID sewer easement, after which it would run along Old Bass Lake Road/Lincoln Highway toward Carson Creek, where the pipe would be hung over the creek and routed west to a point of connection with the existing pipe 18-inch pipe in Russi Ranch Road. Option 2 would differ only in the initial portion of the alignment where it would head west from Bass Lake Road along future Country Club Drive, after which it would join the Old Bass Lake Road/Lincoln Highway where the rest of the alignment overlaps Option 1. Option 2 is generally consistent with the planned sewer trunk alignment shown in Figure 5-2, Sewer Plan, of the BLHSP.

The second alternative includes a septic sewer system as an interim solution for the Project Development Area of the project site. A study by Youngdahl Consulting Group determined that the Program Study Area of the project site is the most likely suitable area for construction of a septic system leach field. A Preliminary Sanitary Sewer Feasibility Study prepared by CWE/RFE Engineering, Inc. evaluated three septic design options for the Development Area. The preferred alternative is a capping fill or mound system septic disposal system. A pressure system with the disposal areas uphill of the septic tanks would be required. The pressure system components would be comprised of a septic tank, pump tank, and dispersal field. The dispersal field trenches would be between one and two feet deep, and three feet wide, and would be constructed with a minimum of one foot of capping fill. The preferred alternative system would adhere to the requirements of the current El Dorado County Onsite Wastewater Treatment Systems Manual.

The EIR will evaluate the impacts of both proposed sewer system alternatives. If the interim septic sewer system is constructed, development would not be allowed to occur in the Program Study Area until the new gravity trunk sewer main is constructed.

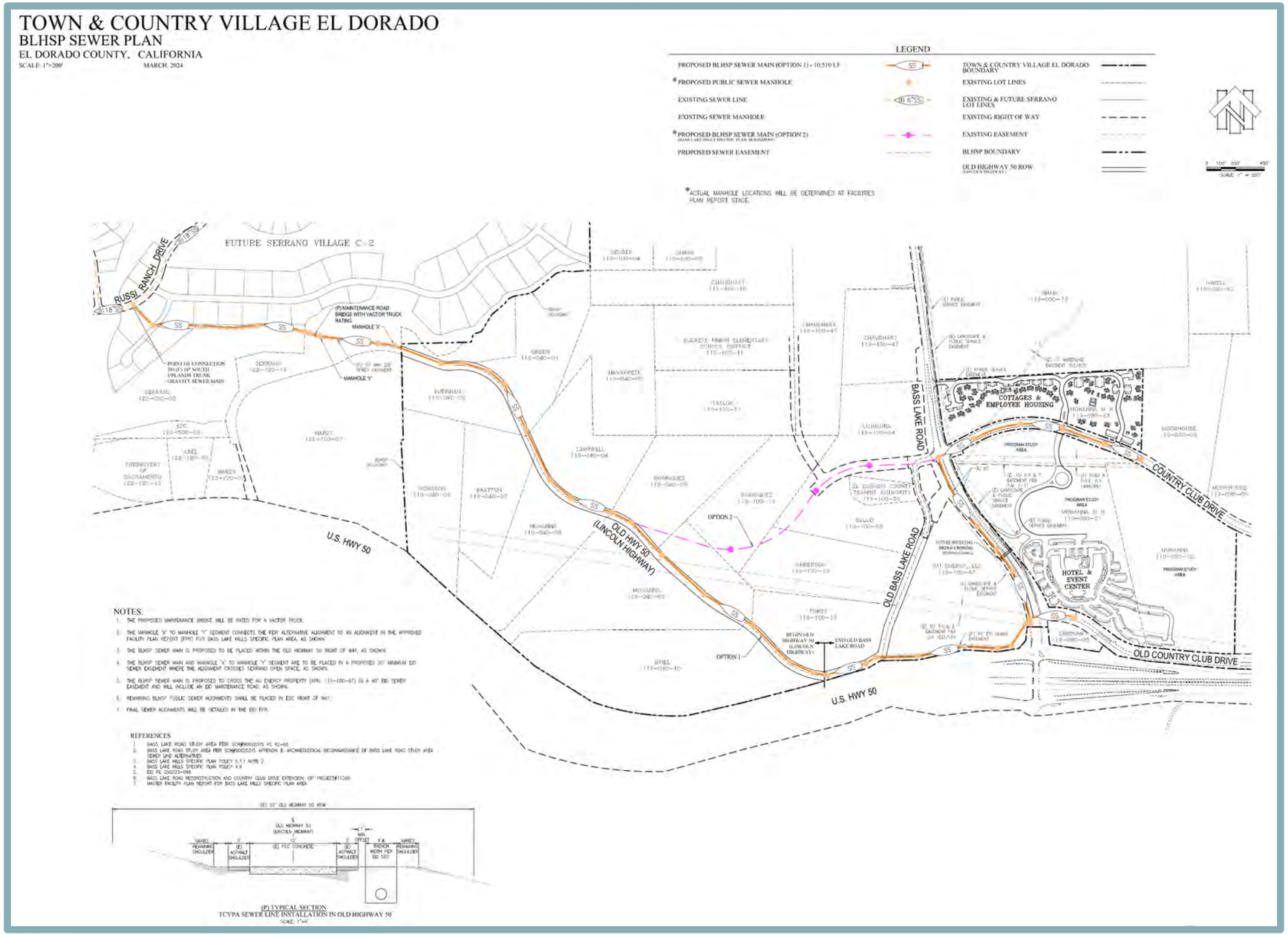
Drainage

A Final Drainage Report will be prepared for the proposed project and approved by the County. The Final Drainage Report will comply with the requirements of the County's Phase II National Pollutant Discharge Elimination System (NPDES) permit and hydromodification standards in place at the time subsequent building permit are sought for construction of the project site. To avoid downstream impacts to Carson Creek, runoff controls would be designed so that post-development runoff does not exceed pre-development runoff rates, durations, and volumes. For example, two new detention basins are proposed to be located in the northwest portion of the project site immediately south of the northernmost site emergency access connection to Bass Lake Road, and immediately north of the southernmost site entrance from Old Country Club Drive.

Gas and Electricity

Pacific Gas & Electric (PG&E) operates electric transmission and distribution facilities within easements on the project site.

Figure 3-18
Off-Site Sewer Line



Electric and natural gas service would be supplied to the project site by PG&E. In addition, solar panels would be installed on the hotel and Event Center/Museum roofs.

Grading

Construction located within the Project Development Area of the project site would require approximately 100,000 cubic yards of cut and 80,525 cubic yards of fill. The excess fill of approximately 19,475 cubic yards would be evenly distributed over the 30.2-acre Program Study Area.

Program Study Area

Development of the Program Study Area consists of 30.2 acres, and may consist of uses such as hotels, senior housing units, medical facilities, townhomes, retail shops, and cottages and other uses allowed by the zoning district. As discussed previously, the proposed BLHSP Amendment would change the current land uses from L.2-PD to 15.1 acres of Multi-Family Residential, 11.9 acres of Commercial, and 3.2 acres of Open Space.

Five acres of the Commercial land use would be reserved for a mixed use senior housing development of 150 units and 10,000 sf of commercial development.

A total of 6.9 acres of the Commercial land use would be reserved for a mixed use development project consisting of 80,000 sf of commercial use and 200 apartment/condominium residential dwelling units. In addition, the proposed Rezone would change the Program Study Area's existing RE-10 zoning designation to CC-PD, RM-PD, and OS-PD.

3.5 REQUIRED DISCRETIONARY APPROVALS

Implementation of the proposed project would require the following discretionary actions by the El Dorado County Board of Supervisors:

- General Plan Amendment to modify the existing Community Region Boundary;
- Amendment to the BLHSP including new land use designations for Commercial, Multi-Family Residential, and Open Space;
- Amendment to the BLHSP Public Facilities Financing Plan;
- Rezone from RE-10 to CC-PD, RM-PD, and OS-PD;
- A Planned Development (PD);
- Tentative Subdivision Map; and
- Conditional Use Permit.

In addition, the following responsible agency approval would be required in order to implement the proposed project:

- El Dorado LAFCo and United States Department of the Interior Bureau of Reclamation: Annexation into EID's service area.

4. INTRODUCTION TO THE ANALYSIS

4.0 INTRODUCTION TO THE ANALYSIS

4.0.1 INTRODUCTION

The technical chapters of this EIR include the analysis of the potential impacts of buildout of the proposed project on a range of environmental issue areas. Chapters 4.1 through 4.15 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 County, or available on the County's website at:

https://engageeldorado.us.engagementhq.com/edc-projects-in-your-area

4.0.2 DETERMINATION OF SIGNIFICANCE

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

Significance Criteria

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

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

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

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

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

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

4.0.3 ENVIRONMENTAL ISSUES ADDRESSED IN THIS EIR

The EIR provides the analysis necessary to address the technical environmental impacts of the 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 Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning/Population and Housing;
- Noise;
- Public Services and Recreation;
- Transportation;
- Tribal Cultural Resources;
- Utilities and Service Systems; and
- Wildfire.

Chapter 4.15, 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 5.3, Cumulative Impacts, of Chapter 5, 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). 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 (see below). The degree of relief provided by identified mitigation measures is also evaluated. An example of the format 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. Impacts related to the development of the Project Development Area and Project Buildout may be discussed under separate sub headers or may be combined, as appropriate.

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

Mitigation Measure(s)

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

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

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

Cumulative Impacts and Mitigation Measures

The following discussion of cumulative impacts is based on implementation of the 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 above, impacts related to the development of the Project Development Area and Project Buildout may be discussed under separate sub headers or may be combined, as appropriate.

As discussed in detail in Chapter 5, 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 El Dorado County General Plan (i.e., El Dorado County), as well as a list of reasonably foreseeable projects not included in the General Plan growth projections.

Statement of ***level of significance*** of cumulative impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR for cumulative impacts: less than significant, less than cumulatively considerable, cumulatively considerable, or significant and unavoidable. If an impact is determined to be cumulatively considerable, mitigation will be included in order to reduce the specific impact to the maximum extent feasible. Impacts that cannot be reduced to 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 existing aesthetic resources in the area of the proposed project and the broader region, and evaluates the potential aesthetic impacts of the project. CEQA describes the concept of aesthetic resources in terms of scenic vistas, scenic resources (such as trees, rock outcroppings, and historic buildings within a State scenic highway), and the existing visual quality or character of the project area. In addition, pursuant to CEQA Guidelines, this chapter describes potential impacts related to light and glare. The following analysis is based on information drawn from the El Dorado County General Plan and the El Dorado County General Plan EIR,[1,2] the Bass Lake Hills Specific Plan (BLHSP),[3] and the Bass Lake Road Study Area Program EIR (Bass Lake EIR).[4]

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

4.1.2 EXISTING ENVIRONMENTAL SETTING

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

Visual Character of the Region

The project site is located within El Dorado County, approximately 500 feet north of U.S. Highway 50 (US 50) / Bass Lake Road interchange. The County lies east of the Central Valley and west of the State of Nevada. Elevations range from 200 feet above mean sea level (amsl) in the western rolling foothills, adjacent to Sacramento County, to more than 10,000 feet amsl along the Sierra Nevada crest on the edge of the Lake Tahoe Basin. Rolling hills with oak woodlands, agricultural land, orchards and vineyards, evergreen forests and snow-capped mountains, scenic rivers, alpine lakes, and historic structures all contribute to the visual character of the County. Travelers through the County on the following roadways pass through areas identified as containing scenic views and resources: US 50 extends east from the Sacramento Valley through the Sierra Nevada and beyond Lake Tahoe; State Route (SR) 89 borders the west shore of Lake Tahoe and continues south to the County line; and SR 49 runs north-south from the Placer County/El Dorado County line to the Amador County/El Dorado County line, passing through the City of Placerville.

1 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.
2 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.
3 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
4 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

Scenic views and scenic resources identified by the County, listed in Table 5.3-1 of the General Plan EIR, include areas along highways where viewers can see large bodies of water, river canyons, rolling hills, or forests. The scenic views identified nearest to the project site are the view of Marble Valley looking south from US 50 and the view of the Sacramento Valley looking west from US 50. Scenic resources have not been identified in the project vicinity.

Scenic Roadways

According to the California Department of Transportation (Caltrans) map of designated and eligible scenic routes under the California Scenic Highway Program,[5] the County contains three designated State scenic highways: US 50 from the eastern limits of Placerville to South Lake Tahoe; all of SR 89 within the County; and those portions of SR 88 along the southern border of the County. In addition, although all of SR 49 is determined to be eligible for designation as a State scenic highway, SR 49 is located approximately 9.3 miles east of the project site, and the portion of US 50 that is designated as a State scenic highway is located approximately 12.3 miles east of the project site. As such, the aforementioned highways are not located in close proximity to the project site.

As discussed in further detail below, the project site is located in the southern central portion of the BLHSP. According to Figure 3-1, Land Use Diagram, of the BLHSP, the portion of the project site located south of Country Club Drive is within a Scenic Corridor Identification area.[6] As of June 2024, a Scenic Corridor Ordinance has not been adopted. As such, although the project site is located within a designated Scenic Corridor Identification area, because development standards have not been established for development within the Scenic Corridor Identification area, the analysis of this chapter will focus on aesthetic impacts of the project that are not related to scenic roadways or scenic corridors.

Visual Character of the Project Site and Surrounding Area

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

Project Site

The project site consists of approximately 60.5 acres located in El Dorado County, California, approximately 500 feet north of US 50, east of Bass Lake Road (see Figure 4.1-1). As discussed above, the project site is located in the southern central portion of the BLHSP; the northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region. As discussed in further detail in Chapter 3, Project Description, of this EIR, the project site would consist of two areas: the Project Development Area consists of the northernmost and southernmost 30.3 acres of the project site, and the Program Study Area consists of the central and easternmost 30.2 acres of the project site.

Country Club Drive crosses through the northern portion of the site and a dirt road is located in the western area of the site. With the exception of two wells located near the center of the site, the project site is otherwise undeveloped.

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5 California Department of Transportation. *California State Scenic Highway System Map.* Available at: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed March 2024.

6 El Dorado County. *Bass Lake Hills Specific Plan* [pg. 19]. November 7, 1995.

Figure 4.1-1
Project Site Boundaries



The terrain of the project site generally slopes from the east down towards the west with elevations ranging from approximately 1,040 feet amsl to 1,220 feet amsl. On-site vegetation consists of seasonal grasses and scattered oak trees. In addition, rock outcroppings are located throughout the site. Seasonal wetlands have also been observed on-site, as well as drainage ditches and an intermittent drainage path that run along the roadways in the site vicinity.

Surrounding Areas

As discussed above, the project site is located within the southern central portion of the BLHSP. The landscape in the project vicinity is similar to that of the project site, consisting of rolling topography and grassy vegetation. Surrounding land uses include undeveloped land and rural residences within the BLHSP to the north; rural residences to the west; the El Dorado Hills Fire Department Station 86 to the northwest; undeveloped land and rural residences to the south, across US 50; and undeveloped land to the east, with a church located farther east.

Viewer Types

Viewer types in the vicinity that have views of the project site include the following:

- *Motorists* along US 50 would have existing views of the project site while driving past the site. Views of the site are also available to motorists on Country Club Drive and Bass Lake Road.
- *Cyclists* along Country Club Drive and Bass Lake Road would have existing views of the project site while riding past the site.
- *Residents* of the rural residences to the west, north, and south have limited views of the project site that would be obscured by existing intervening topography and vegetation.

Public Versus Private Views

Travelers along nearby roadways, as well as the nearby residences, 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 proposed project, public views would consist primarily of views from US 50, Bass Lake Road, and Country Club Drive in the project vicinity.

CEQA (Public Resources Code [PRC] Section 21000 et seq.) case law has established that only public views, not private views, are protected under CEQA. 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 potential impacts to public views, rather than private views.

Existing Conditions of Key Viewpoints

El Dorado County, in coordination with the environmental consultant team for the project, selected key public viewpoints that would most clearly display the proposed project's potential visual effects (see Figure 4.1-2). In addition, consistent with BLHSP requirements, three additional viewpoints located along US 50 at the locations shown in Figure 4.1-3 are discussed below.

View 1: Views from Bass Lake Road/US 50 Off-Ramp (Looking Northeast Toward the Project Site)

The view from Bass Lake Road at the west US 50 off-ramp looking northeast toward the southwestern corner of the Project Development Area is shown in Figure 4.1-4. As shown therein, View 1 consists of a paved roadway, road signs, a utility pole, a gravel shoulder, and grassy vegetation in the foreground. Midground views consist of wire fencing and grassy vegetation on the hillside, as well as scattered oak trees and rock outcroppings. Distant oak trees, behind the on-site high point, are visible in the background.

View 2: Views from Bass Lake Road/Country Club Drive (Looking North Toward the Project Site)

The view from the Bass Lake Road/Country Club Drive intersection looking north toward the northernmost portion of the Project Development Area is shown in Figure 4.1-5. As shown therein, the foreground of View 2 consists of the aforementioned intersection; Bass Lake Road continues north through the midground and background. Midground views also consist of sloping terrain rising in elevation towards the east with grassy vegetation and scattered trees. Background views consist of trees lining the tops of the hill beyond.

View 3: Views from Bass Lake Road/Country Club Drive (Looking Southeast Toward the Project Site)

Views from the Bass Lake Road/Country Club Drive intersection looking southeast toward the Program Study Area are shown in Figure 4.1-6. As shown therein, both the foreground and midground of View 3 consists of the paved roadway, as well as associated traffic lights and road signs. Background views consist of undeveloped land covered in grassy vegetation and trees sloping to either side of Bass Lake Road. A dirt roadway and a drainage ditch are also visible on the western slope of the project site.

View 4: Views from Bass Lake Road (Looking South Toward the Project Site)

Views from southbound Bass Lake Road looking south towards the northern portion of the Project Development Area, where cottages would be located, are shown in Figure 4.1-7. As shown therein, the foreground of View 4 consists of the paved roadway and the vegetated road shoulders. Bass Lake Road extends from the foreground into the midground. Other midground views consist of the vegetated hillside, as well as wire fencing, utility poles, and power lines. Background views consist of scattered trees partially obscuring the on-site hilltop beyond.

View 5: Views from Country Club Drive (Looking Northwest Toward the Project Site)

Views from Country Club Drive looking northwest toward the northern portion of the Project Development Area are shown in Figure 4.1-8. As shown therein, the foreground of View 5 consists of the paved roadway and the dirt shoulder, as well as grassy vegetation and a wire fence. Country Club Drive extends from the foreground into the background.

Figure 4.1-2
Key Public Viewpoints

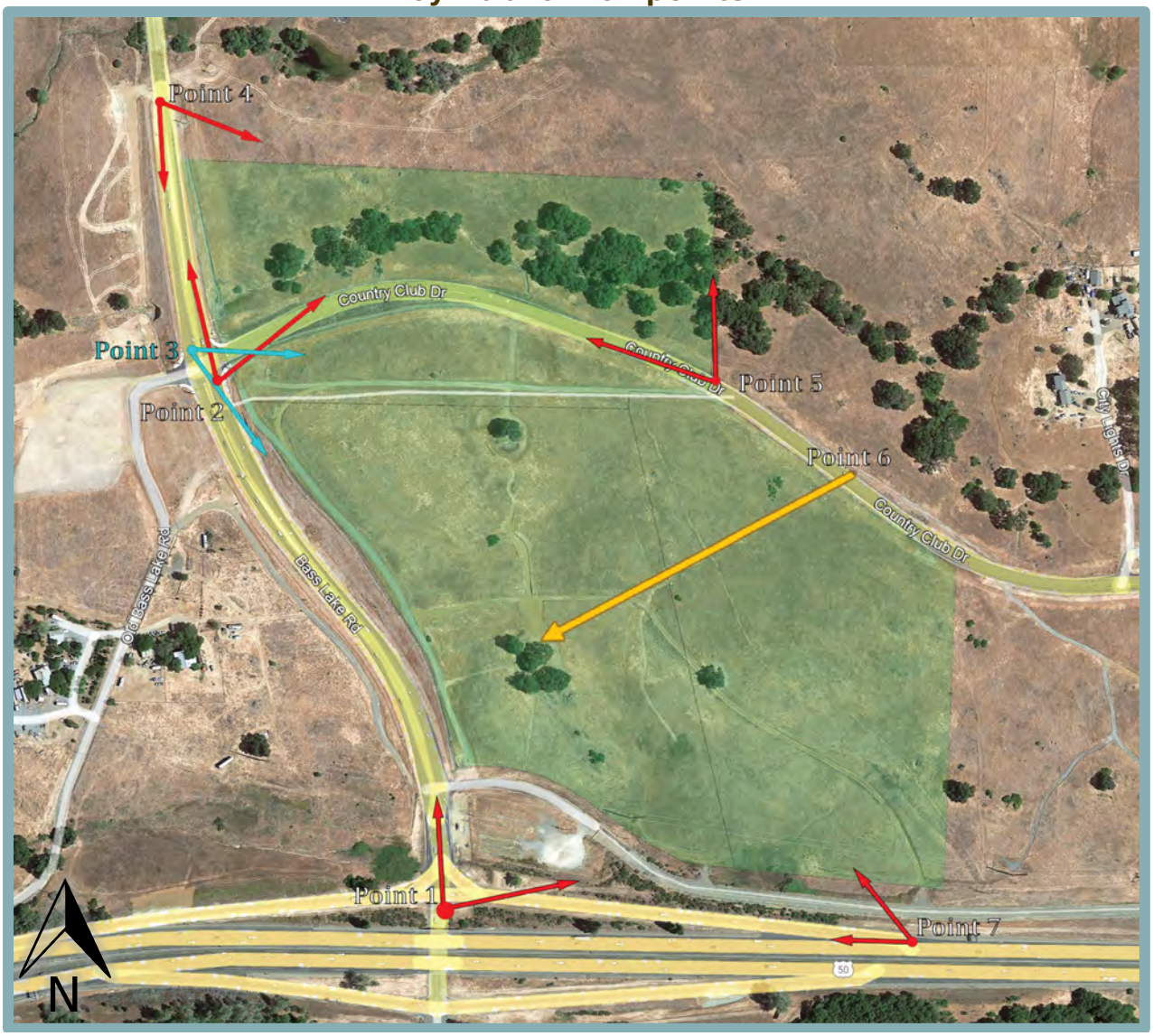


Figure 4.1-3
BLHSP-Required Viewpoints



Figure 4.1-4
View 1: Existing View of Project Site from Bass Lake Road/US 50 Off-Ramp Looking Northeast



Figure 4.1-5
View 2: Existing View of Project Site from Bass Lake Road/Country Club Drive Looking North



Figure 4.1-6
View 3: Existing View of Project Site from Bass Lake Road/Country Club Drive Looking Southeast



Figure 4.1-7
View 4: Existing View of Project Site from the Bass Lake Road Looking South

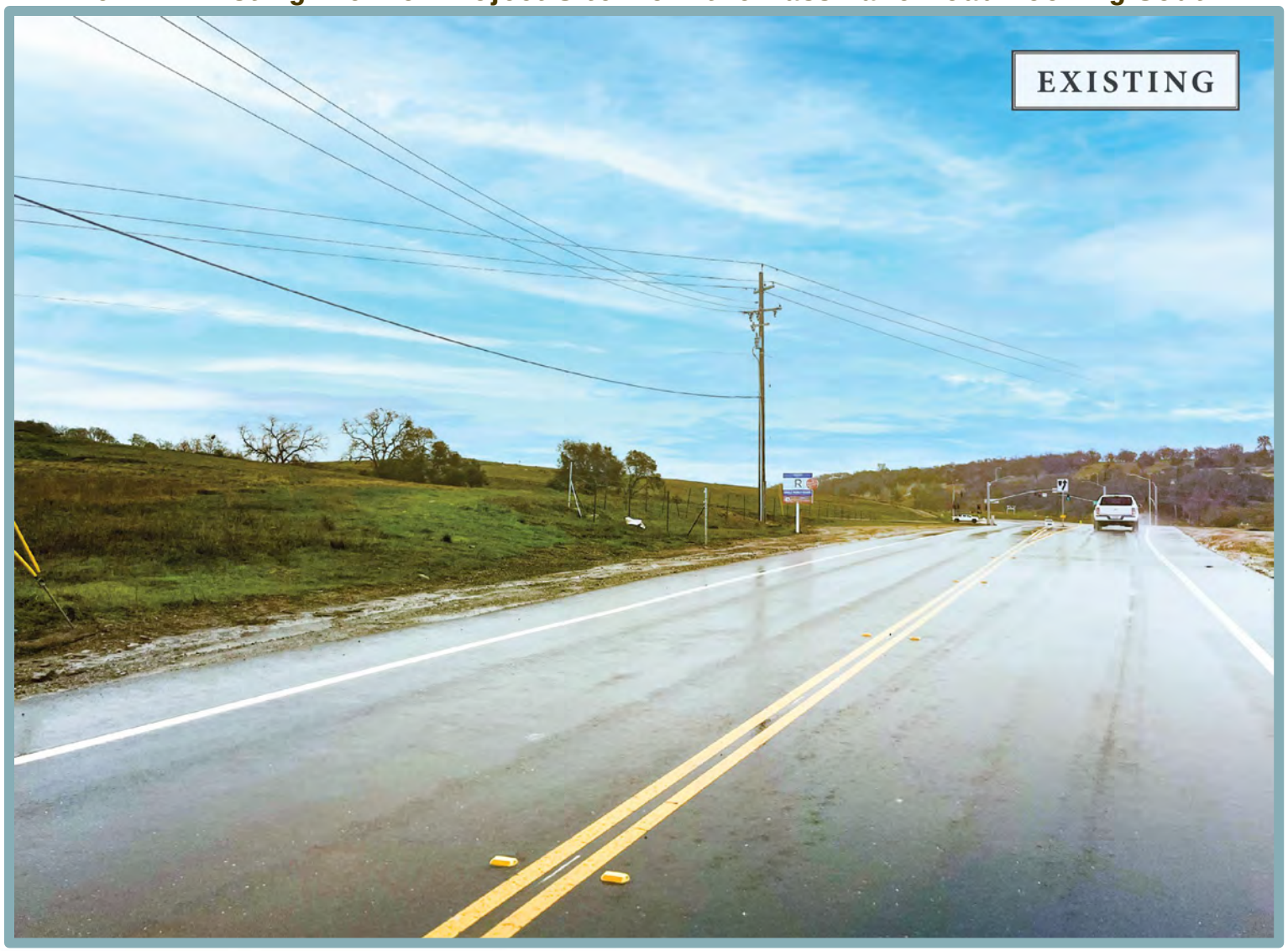
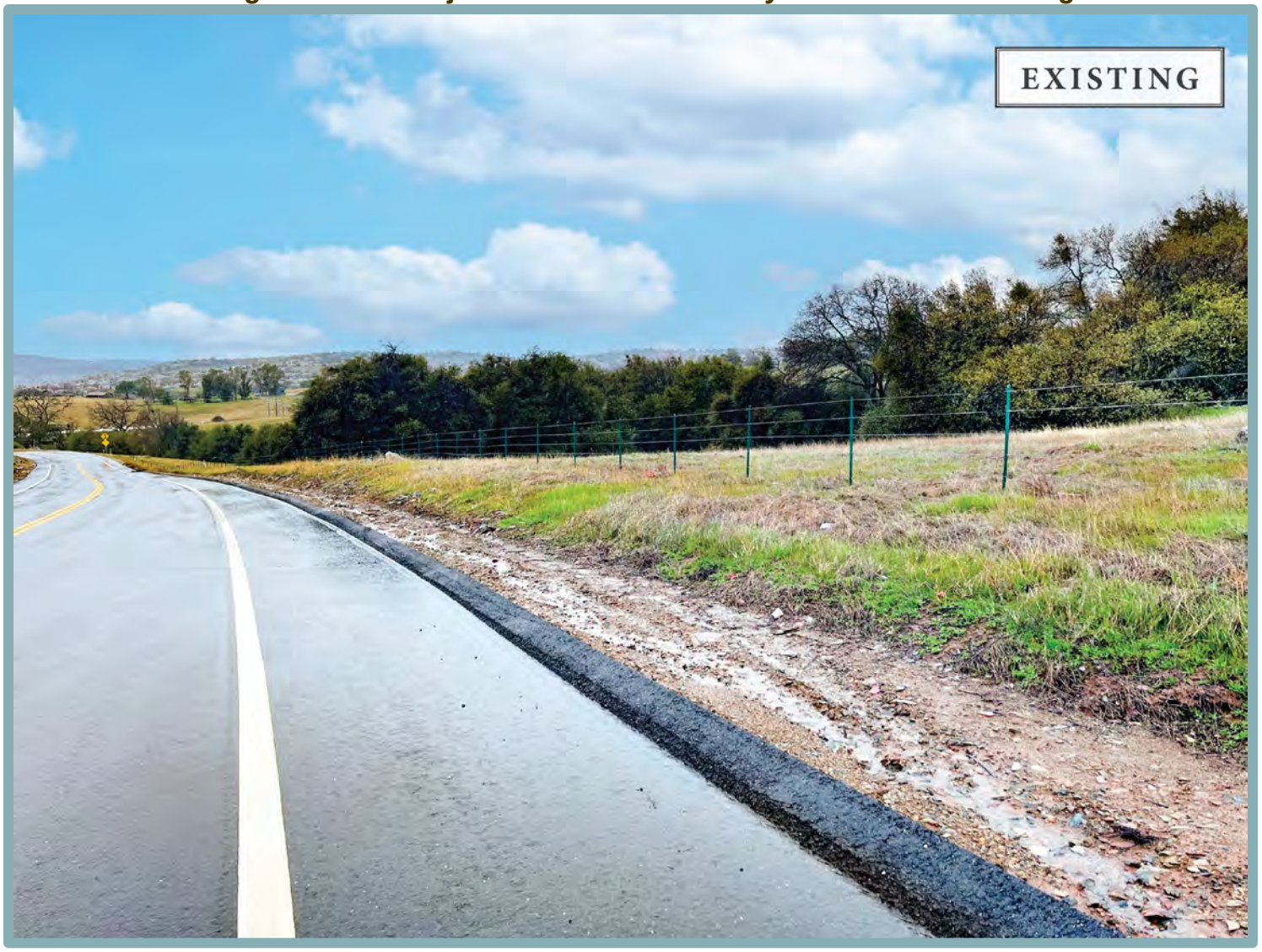


Figure 4.1-8
View 5: Existing View of Project Site from Country Club Drive Looking Northwest



Midground views consist of grassy vegetation and densely packed trees. Background views consist of distant hills occupied by grasses and trees.

View 6: Views from Country Club Drive (Looking Southwest Toward the Project Site)

Views from Country Club Drive looking southwest toward both the Project Development Area and the Program Study Area are shown in Figure 4.1-9. As shown therein, the foreground of View 6 consists of the paved roadway with dirt shoulders, grassy vegetation, and wire fencing to either side. Midground views consist of grassy vegetation and rock outcroppings on the hillside; the hillside descends toward and into the project site towards the west. Background views consist of residential development on the surrounding hillsides, with distant views of the Sacramento Valley and the Coastal Range to the west.

View 7: Views from Westbound US 50 (Looking Northwest Toward the Project Site)

Views from westbound US 50 looking northwest toward both the Project Development Area and the Program Study Area are shown in Figure 4.1-10. As shown therein, the foreground of View 7 consists of the paved roadway, utility poles, road signs, and grassy vegetation. Midground views consist of the undeveloped rolling terrain of the project site, which is covered in grasses. Scattered trees and a paved roadway, as well as the rural residence located west of the project site, are also visible. Background views consist of nearby hilltops and distant hillsides with trees and scattered structures.

View A: Views from US 50 and Bass Lake Road Eastbound Off-Ramp (Looking Northeast Toward the Project Site)

Views from the US 50 Bass Lake Road eastbound off-ramp looking northeast toward both the Project Development Area and the Program Study Area are shown in Figure 4.1-11. As shown therein, the foreground of View A consists of the paved lanes of US 50. Midground views consist of utility poles, road signs, and trees partially obscured by the median that centers US 50. Background views consist of on-site grassy hillsides and trees. Figure 4.1-12

View B: Views from Eastbound US 50 and El Dorado Hills Boulevard Off-Ramp (Looking East Toward the Project Site)

Views from eastbound US 50 at the El Dorado Hills Boulevard off-ramp looking east toward the project site are shown in Figure 4.1-12. As shown therein, the foreground of View B consists of the paved lanes of US 50, as well as the dirt shoulder that is sparsely vegetated. US 50 stretches into the midground; additional midground views include a medical office building to the right and residential development to the left, as well as street lights and traffic signs. Background views consist of residential development and trees on distant hillsides. As shown in Figure 4.1-3, View B is located approximately 2.5 miles west of the project site. Due to the distance between View B and the project site, as well as the intervening geography and development, the project site is not visible from View B.

View C: Views from Westbound US 50 at Crazy Horse Campground (Looking West Toward the Project Site)

Views from westbound US 50 at the Crazy Horse Campground looking west toward the project site are shown in Figure 4.1-13. As shown therein, the foreground of View C consists of the paved lanes of US 50, as well as the gravel shoulder and median.

Figure 4.1-9
View 6: Existing View of Project Site from Country Club Drive Looking Southwest



Figure 4.1-10
View 7: Existing View of Project Site from Westbound US 50 Looking Northwest

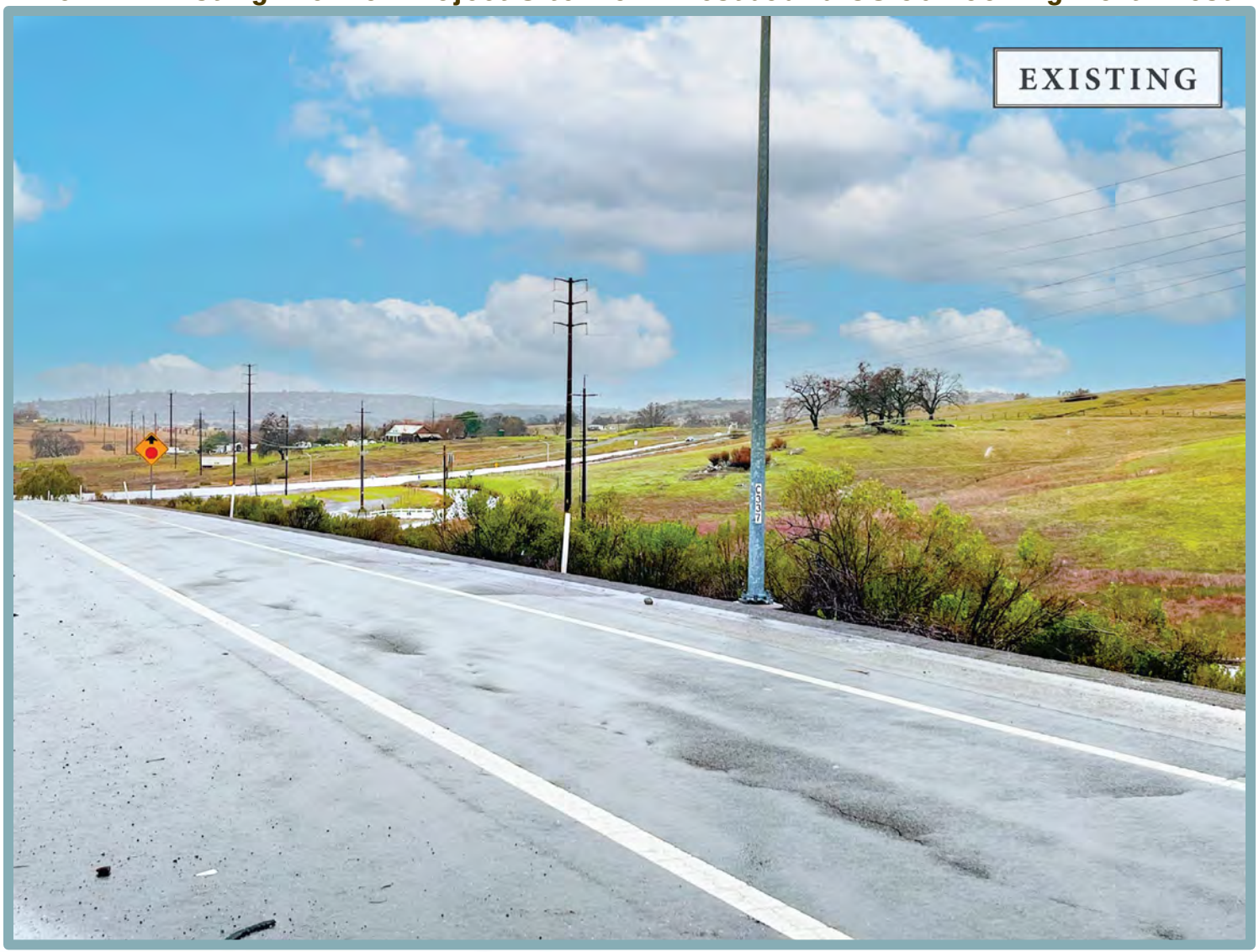


Figure 4.1-11
View A: Existing View from US 50 and Bass Lake Road Eastbound Off-Ramp Looking Northeast



Figure 4.1-12
View B: Existing View from Eastbound US 50 and El Dorado Hills Boulevard Off-Ramp Looking East



Figure 4.1-13
View C: Existing View from Westbound US 50 at Crazy Horse Campground Looking West



US 50 extends through the midground into the background. Other midground and background views consist of utility poles and trees that line US 50, as well as urban development.

As shown in Figure 4.1-3, View C is located approximately one mile east of the project site. Due to the distance between View C and the project site, as well as the intervening geography and development, the project site is not visible from View C.

Light Pollution and Glare

Light pollution refers to all forms of unwanted light in the night sky, including glare, light trespass, sky glow, and excessive illumination at an intensity that is inappropriate. Views of the night sky can be an important part of the natural environment, particularly in communities surrounded by extensive open space. Excessive light and glare can also be visually disruptive to humans and nocturnal animal species.

Currently, the project site is primarily characterized by an undeveloped, unlit landscape. Although the project site is located within the vicinity of existing sources of light and glare associated with the nearby rural residences to the north, west, and south, such structures are not located adjacent to the site boundaries. Lighting associated with existing development and headlights from vehicles traveling on US 50, Bass Lake Road, and Country Club Drive currently contribute to the overall nighttime lighting environment of the project area.

4.1.3 REGULATORY CONTEXT

Applicable federal laws or regulations pertaining to the aesthetic quality of the project area do not exist. The existing State and local laws and regulations applicable to the proposed project are listed below.

State Regulations

The following is an applicable State regulation 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. Such highways are identified in Section 263 et seq. of the California Streets and Highways Code.

Local Regulations

The following local regulations are applicable to the proposed project.

El Dorado County General Plan

The following design goals and policies of the El Dorado County General Plan are applicable to the proposed project:

Goal 2.5 COMMUNITY IDENTITY:

Carefully planned communities incorporating visual elements which enhance and maintain the rural character and promote a sense of community.

Objective 2.5.1 PHYSICAL AND VISUAL SEPARATION: Provision for the visual and physical separation of communities from new development.

Policy 2.5.1.1 Low intensity land uses shall be incorporated into new development projects to provide for the physical and visual separation of communities. Low intensity land uses may include any one or a combination of the following: parks and natural open space areas, special setbacks, parkways, landscaped roadway buffers, natural landscape features, and transitional development densities.

Goal 2.6 CORRIDOR VIEWSHEDS:

Protection and improvement of scenic values along designated scenic road corridors.

Objective 2.6.1 SCENIC CORRIDOR IDENTIFICATION: Identification of scenic and historical roads and corridors.

Policy 2.6.1.5 All development on ridgelines shall be reviewed by the County for potential impacts on visual resources. Visual impacts will be assessed and may require methods such as setbacks, screening, low-glare or directed lighting, automatic light shutoffs, and external color schemes that blend with the surroundings in order to avoid visual breaks to the skyline.

Goal 2.8 LIGHTING:

Elimination of high intensity lighting and glare consistent with prudent safety practices.

Objective 2.8.1 LIGHTING STANDARDS: Provide standards, consistent with prudent safety practices, for the elimination of high intensity lighting and glare.

Policy 2.8.1.1 Development shall limit excess nighttime light and glare from parking area lighting, signage, and buildings. Consideration will be given to design features, namely directional shielding for street lighting, parking lot lighting, sport field lighting, and other significant light sources, that could reduce effects from nighttime lighting. In addition, consideration will be given to the use of automatic shutoffs or motion sensors for

lighting features in rural areas to further reduce excess nighttime light.

Goal 7.6 OPEN SPACE CONSERVATION

Conserve open space land for the continuation of the County's rural character, commercial agriculture, forestry, and other productive uses, the enjoyment of scenic beauty and recreation, the protection of natural resources, for protection from natural hazards, and for wildlife habitat.

Bass Lake Hills Specific Plan

The BLHSP was adopted November 7, 1995, as a coordinated planning program consistent with the El Dorado County General Plan for the development of 1,196 acres located in eastern El Dorado County. The plan area is located approximately three miles east of the Sacramento County/El Dorado County line within the underdeveloped eastern portion of El Dorado Hills and adjacent to the west end of Cameron Park. US 50 forms the southern Plan area boundary, and Bass Lake Road transects the area in a north/south direction. Bass Lake is located approximately 0.25-mile north of the plan area.

The relevant goals and policies from the BLHSP related to aesthetics are presented below.

Scenic Corridor Identification

As discussed above, according to Figure 3-1, Land Use Diagram, of the BLHSP, the portion of the project site located south of Country Club Drive is within a proposed Scenic Corridor Identification area.[7] However, as of June 2024, a Scenic Corridor Ordinance has not been adopted. As such, although the project site is located within a proposed Scenic Corridor Identification area, development standards have not been established for development within that area.

Design Guidelines

Section 8.0 of the BLHSP presents guidelines that apply to all public lands within the Plan area and are intended to promote a sense of community identity through common design themes and enhance the quality of life of residents. Guidelines relevant to aesthetics include requirements for landscape easements along Bass Lake Road and other primary local roads consisting of native drought tolerant plants and trees in order to obscure the visibility of any solid wall or fence. Section 8.0 of the BLHSP also establishes guidelines for the design of walls, fences, and berms within the BLHSP area, as well as guidelines related to the design and use of lighting and signage. The BLHSP requires lighting to be the minimum intensity necessary to achieve its intended purpose, and requires the use of downward-oriented cut-off type fixtures and shielding to prevent light spillage and glare impacts beyond the target of illumination. BLHSP guidelines related to signs include requiring signs to employ natural material such as stone and wood, as well as requiring all signs to be at least 15 feet from any public street right-of-way.

El Dorado County Standards and Ordinances

The County has several standards and ordinances that address issues relating to visual resources, many of which can be found in the County Zoning Ordinance (Title 130 of the El Dorado County Code). The Zoning Ordinance consists of descriptions of the zoning districts,

[7] El Dorado County. *Bass Lake Hills Specific Plan* [pg. 19]. November 7, 1995.

including identification of uses allowed by right or requiring a special-use permit and specific development standards that apply in particular districts based on parcel size and land use density. These development standards often involve limits on the allowable size of structures, required setbacks, and design guidelines.

Chapter 130.30 of the Zoning Ordinance contains general requirements for various types of development in the County, including standards regulating materials, parking, setbacks, frontage design, landscaping, and other design elements. The Zoning Ordinance establishes outdoor lighting standards, and requires that all outdoor lighting shall be located, adequately shielded, and directed such that no direct light falls outside the property line, or into the public right-of-way. It also references the adopted Outdoor Lighting Standards, which provide outdoor lighting criteria for lighting practices and systems. In addition, Chapter 130.36 of the El Dorado County Code establishes regulations and standards related to signage.

Title 120 of the El Dorado County Code establishes requirements for major land developments (i.e., subdivisions). These requirements include, in various contexts, the establishment of a Subdivision Design and Improvement Standards Manual (Design Manual) that must be approved by the County Board of Supervisors. Following adoption of the manual, design modifications or renovations must comply with the design standards. The current Design Manual contains standards regulating materials, parking, setbacks, frontage design, landscaping, and other design elements of the project.

4.1.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology used to analyze and determine the proposed 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 proposed project would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- 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 which would adversely affect day or nighttime views in the area.

Method of Analysis

The section below gives full consideration to the development of the proposed project and acknowledges physical changes to the existing setting. Impacts to the existing environment of the project area are to be determined by the contrast between the visual setting before and after buildout of the proposed project. The standards of significance listed above are used to delineate the significance of any visual alterations of the site, including alterations that would impact views from public viewsheds in the project area. The standards are not based solely on a change in the

visual character or quality of the site and its surroundings, but whether the changes would substantially degrade said visual character or quality.

With respect to aesthetic impacts, the CEQA Guidelines include separate thresholds of significance for projects located within non-urbanized and urbanized areas. Non-urbanized areas are defined as rural and/or unincorporated areas that are not densely populated or developed; urbanized areas are generally defined as either an incorporated city with a population greater than 100,000 people or an unincorporated area that is completely surrounded by incorporated cities or is planned for substantial development. In non-urbanized areas, aesthetic impacts are analyzed based on whether the existing visual character or quality of public views of the site and its surroundings would be substantially degraded. In urbanized areas, aesthetic impacts are analyzed based on whether a project would conflict with the zoning designation of the project site or other regulations governing scenic quality.

El Dorado County includes both urbanized and non-urbanized areas. The northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region. As such, the northern portion of the project site could be considered to be located within an urbanized area. However, given that the existing development in the immediate vicinity of the site is primarily rural in nature, the analysis within this chapter considers the entire project area to be non-urbanized. As such, the analysis below includes a discussion of whether the proposed project would substantially degrade the existing visual character or quality of public views.

OMVI Architecture prepared computer-generated simulations of the selected seven viewpoints to aid in the visual character evaluation of the proposed project. OMVI Architecture 3D modeled the entire project site with the completed development of the Project Development Area based on project-specific information. OMVI Architecture then overlayed photos of the existing project site from each designated location and aligned each 3D model view to ensure that the view angle and perspective matched the photos of the project site. The composition of the photo simulations consists of the existing setting as the top layer, the completed development (3D model) as the middle layer, and the background as the final layer. Similar methods were employed by HR Group Architects to prepare computer-generated simulations of Views A through C following buildout of the Project Development Area.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to aesthetics is based on implementation of the proposed project in comparison to existing conditions and the standards of significance presented above.

4.1-1 Have a substantial adverse effect on a scenic vista. Based on the analysis below, the impact would be *less than significant*.

A scenic vista, as defined in this EIR, is an area that is designated, signed, and accessible to the public for the express purposes of viewing and sightseeing. A scenic vista includes any such areas designated by a federal, State, or local agency. The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout to result in impacts related to scenic vistas.

Project Development Area and Project Buildout

Federal and State agencies have not designated any such locations within El Dorado County for viewing and sightseeing. As discussed in greater detail under Impact 4.1-2, below, although the County contains officially designated scenic highways, none are located near the project site. While the General Plan EIR identifies multiple scenic views and scenic resources throughout the County, including portions of waterways, forests, or ridges visible from road segments, none are visible from the project site. For example, the scenic views identified nearest to the project site are the view of Marble Valley looking south from US 50 and the view of the Sacramento Valley looking west from US 50. Both of the foregoing scenic views are only visible from US 50, and, thus, are not visible from within the project site.

In addition, according to Figure 3-1, Land Use Diagram, of the BLHSP, the portion of the project site located south of Country Club Drive is within a Scenic Corridor Identification area.[8] However, as of January 2024, a Scenic Corridor Ordinance has not been adopted. As such, specific development standards have not been adopted for development within that area. Therefore, the proposed project would not conflict with any requirements or development standards associated with the Scenic Corridor Identification area, and a significant impact related to such would not occur.

Conclusion

Based on the above information, because established scenic vistas are not located on or adjacent to the project site, the proposed project would not have a substantial adverse effect on a scenic vista. Therefore, the project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)

None required.

4.1-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. Based on the analysis below, the impact is *less than significant.*

The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout, to result in impacts related to scenic resources.

Project Development Area and Project Buildout

As previously noted, officially designated State scenic highways within El Dorado County include segments of US 50, SR 49, and SR 88. SR 49 is located approximately 9.3 miles east of the project site, and the portion of US 50 that is designated as a State scenic highway is located approximately 12.3 miles east of the projects site. As such, the aforementioned highways are not located in close proximity to the project site. In addition, although the General Plan EIR identifies multiple scenic resources within the County, the locations of which are shown in Exhibit 5.3-1 of the General Plan EIR, scenic resources are not identified within the project vicinity.

[8] El Dorado County. *Bass Lake Hills Specific Plan* [pg. 26]. November 7, 1995.

Conclusion

Based on the above, the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. Therefore, the project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)

None required.

4.1-3 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. Based on the analysis below, the impact would be *significant and unavoidable*.

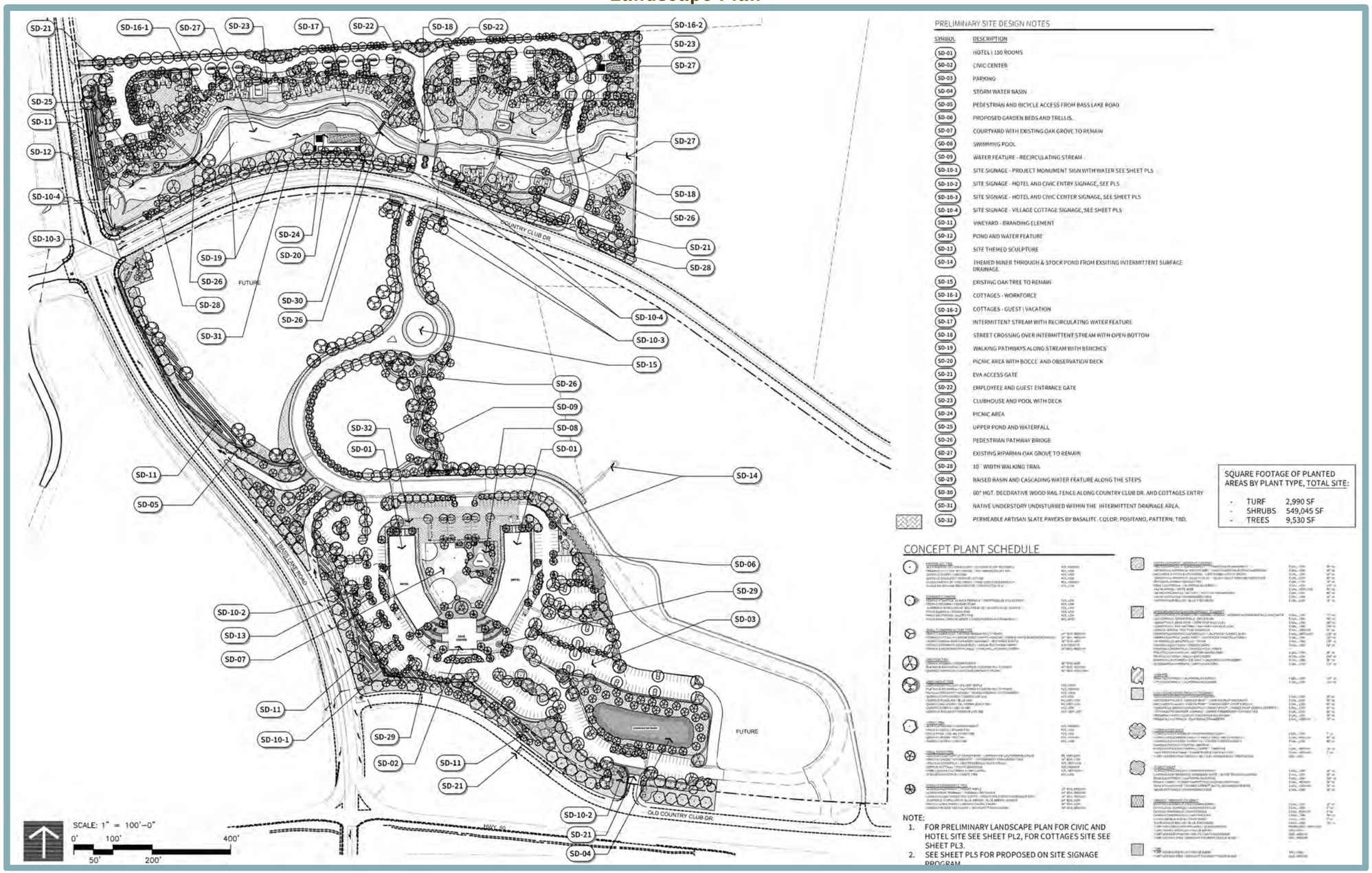
As discussed above, the northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region. As such, the northern portion of the project site could be considered to be located within an urbanized area. However, given that the existing development in the immediate vicinity of the site is primarily rural in nature, the analysis within this chapter considers the entire project area to be non-urbanized.

The project site would consist of two areas: the Project Development Area consists of the northernmost and southernmost 30.3 acres of the project site, and would be developed with two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended stay basis. The Program Study Area consists of the central and easternmost 30.2 acres of the project site and may include future development of additional hotels, medical facilities, senior housing, townhomes and cottages.

In compliance with Chapter 130.33, Landscaping Standards, of the El Dorado County Code, a landscaping plan has been prepared for the Project Development Area as part of the proposed Planned Development application. As shown in Figure 4.1-14, the proposed project would include the planting of 3,670 square feet (sf) of turf, 545,830 sf of shrubs, and 9,530 sf of trees. Trees proposed to be planted on-site would include a significant amount of 24-inch box sized trees, as well as many 36-inch and 48-inch box sized trees. Consistent with El Dorado County and BLHSP requirements, on-site landscaping would consist of drought-tolerant plants and trees and would incorporate landscaping along local roadways.

Construction activities associated with the proposed project and associated off-site utilities improvements would include clearing and mass grading of the site, trenching for utilities, and other temporary activities that would be visible from nearby roadways.

Figure 4.1-14
Landscape Plan



PRELIMINARY SITE DESIGN NOTES

SYMBOL	DESCRIPTION
SD-01	HOTEL	150 ROOMS
SD-02	CIVIC CENTER
SD-03	PARKING
SD-04	STORM WATER BASIN
SD-05	PEDESTRIAN AND BICYCLE ACCESS FROM BASS LAKE ROAD
SD-06	PROPOSED GARDEN BEDS AND TRELLIS.
SD-07	COURTYARD WITH EXISTING OAK GROVE TO REMAIN
SD-08	SWIMMING POOL
SD-09	WATER FEATURE - RECIRCULATING STREAM
SD-10-1	SITE SIGNAGE - PROJECT MONUMENT SIGN WITH WATER SEE SHEET PL5
SD-10-2	SITE SIGNAGE - HOTEL AND CIVIC ENTRY SIGNAGE, SEE PL5
SD-10-3	SITE SIGNAGE - HOTEL AND CIVIC CENTER SIGNAGE, SEE SHEET PL5
SD-10-4	SITE SIGNAGE - VILLAGE COTTAGE SIGNAGE, SEE SHEET PL5
SD-11	VINEYARD - BRANDING ELEMENT
SD-12	POND AND WATER FEATURE
SD-13	SITE THEMED SCULPTURE
SD-14	THEMED MINER THROUGH & STOCK POND FROM EXSITING INTERMITTENT SURFACE DRAINAGE.
SD-15	EXISTING OAK TREE TO REMAIN
SD-16-1	COTTAGES - WORKFORCE
SD-16-2	COTTAGES - GUEST	VACATION
SD-17	INTERMITTENT STREAM WITH RECIRCULATING WATER FEATURE
SD-18	STREET CROSSING OVER INTERMITTENT STREAM WITH OPEN BOTTOM
SD-19	WALKING PATHWAYS ALONG STREAM WITH BENCHES
SD-20	PICNIC AREA WITH BOCCE AND OBSERVATION DECK
SD-21	EVA ACCESS GATE
SD-22	EMPLOYEEE AND GUEST ENTRANCE GATE
SD-23	CLUBHOUSE AND POOL WITH DECK
SD-24	PICNIC AREA
SD-25	UPPER POND AND WATERFALL
SD-26	PEDESTRIAN PATHWAY BRIDGE
SD-27	EXISTING RIPARIAN OAK GROVE TO REMAIN
SD-28	10' WIDTH WALKING TRAIL
SD-29	RAISED BASIN AND CASCADING WATER FEATURE ALONG THE STEPS
SD-30	60" HGT. DECORATIVE WOOD RAIL FENCE ALONG COUNTRY CLUB DR. AND COTTAGES ENTRY
SD-31	NATIVE UNDERSTORY UNDISTURBED WITHIN THE INTERMITTENT DRAINAGE AREA.
SD-32	PERMEABLE ARTISAN SLATE PAVERS BY BASALITE. COLOR: POSITANO, PATTERN: TBD.

SQUARE FOOTAGE OF PLANTED AREAS BY PLANT TYPE, TOTAL SITE:

- TURF 2,990 SF
- SHRUBS 549,045 SF
- TREES 9,530 SF

CONCEPT PLANT SCHEDULE

NOTE:
1. FOR PRELIMINARY LANDSCAPE PLAN FOR CIVIC AND HOTEL SITE SEE SHEET PL2, FOR COTTAGES SITE SEE SHEET PL3.
2. SEE SHEET PL5 FOR PROPOSED ON SITE SIGNAGE PROGRAM

Construction located within the Project Development Area of the project site would require approximately 100,000 cubic yards of cut and 80,525 cubic yards of fill. The excess fill of approximately 19,475 cubic yards would be evenly distributed over the 30.2-acre Program Study Area. All construction-related effects on the visual character and quality of the project site and/or surrounding area would be temporary.

Two alternatives are currently proposed for providing sewer service to the project site. The first alternative consists of the construction of an approximately 10,510-linear-foot BLHSP sewer main that would connect the project site to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Road, approximately 1.6 miles to the west. The second alternative includes a septic sewer system as an interim solution for the Project Development Area. Because neither of the off-site sewer alternatives would include the development of vertical structures, sewer improvements associated with Project Buildout would not involve in the creation of visible structures on- or off-site, and thus, would not result in any potential aesthetic impacts.

Buildout of the Project Development Area of the project site would include two 150-room hotels, 112 residential cottages, retail uses, restaurants, an event center/museum, recreational amenities, and parking lots. As shown in Figures 3-8 through 3-10 in Chapter 3, Project Description, of this EIR, the hotel component of the proposed project would consist of two, five-story structures totaling 160,000 sf, and the Event Center/Museum would be a three-story structure consisting of 21,000 sf. It is noted that both the proposed hotel and Event Center/Museum, as currently designed, could exceed the maximum allowable heights established for the site's zoning designation by up to 10 feet. In addition, as shown in Figure 3-11 of Chapter 3, Project Description, of this EIR, the northernmost 7.9 acres of the project site would be developed with 112 cottage units, each of which would be comprised of two stories totaling approximately 560 sf.

The proposed project would also include the development of a Class 1 bike path bridge crossing Bass Lake Road that would connect to a BLHSP planned Class 1 bike path on the west side of Bass Lake Road. The proposed bike path bridge was identified as a component of the Project Development Area subsequent to the preparation of the photo simulations for the proposed project. While the proposed bridge would not be particularly prominent in any of the photo simulations presented herein, it would be clearly noticeable from other locations along Bass Lake Road. In such instances, it is acknowledged that the proposed bike path bridge would contribute toward the change in visual character of the project site and surrounding area, as well as the visual impacts discussed in further detail below.

As discussed previously, although the project site is located within a Scenic Corridor Identification area, because a Scenic Corridor Ordinance has not been adopted, specific standards and requirements have not been established, and project buildout would not result in any impacts related to potential conflicts with such.

As discussed above, public views of the project site are afforded from US 50, Bass Lake Road, and Country Club Drive. Changes to the aforementioned key public viewpoints due to development of the proposed project are discussed separately in further detail below.

View 1: Views from Bass Lake Road/US 50 Off-Ramp (Looking Northeast Toward the Project Site)

Currently, View 1 consists of a paved roadway, road signs, a utility pole, a gravel shoulder, and grassy vegetation in the foreground. Midground views consist of wire fencing and grassy vegetation on the hillside, as well as scattered oak trees and rock outcroppings. Distant oak trees, behind the on-site high point, are visible in the background.

Impacts upon View 1 related to the Project Development Area and Project Buildout are discussed separately below.

Project Development Area

Figure 4.1-15 shows a photo simulation of View 1 following buildout of the Project Development Area in comparison to existing conditions. As shown therein, while foreground views would not be significantly altered by project buildout, the proposed project would block existing midground and background views of a predominantly natural landscape with hotel buildings. Existing views of the hillside and hilltop would be blocked by the proposed hotels. The hotels would be developed with exterior materials including stone veneer accents, wood siding, and tile roofing.

As discussed in Chapter 3, Project Description, of this EIR, the maximum height of the hotels, as currently designed, could exceed the maximum allowable height established for the CC zoning designation in Figure 130.30.060(a) of the El Dorado County Code by up to 10 feet due to the various lower elevations surrounding the oak grove.

The current land use designation for the southern portion of the project site is Low Density Residential Planned Development with a maximum allowable density of 0.2 dwelling units per acre (du/ac) (L.2-PD). While the proposed project would include a General Plan Amendment, BLHSP Amendment, and Rezone to allow for development of the site at the proposed specifications, the County has previously considered buildout of the project site proposed for development with residential uses. Furthermore, the speed limit on Bass Lake Road is 50 miles per hour (mph) along the project frontage. Given the speed limit and the varying elevation of the site, public views are temporary, occurring only as motorists and bicyclists briefly pass by the project site. Accordingly, such views are moderately sensitive to changes in the visual character or quality of the site.

Overall, given that the project site is predominantly undeveloped and affords views from Bass Lake Road of rural landscape, comprised primarily of grassy hills, the existing visual character of the site would be significantly altered by buildout of the Project Development Area.

Project Buildout

While specific building layouts have not yet been planned for future development of the Program Study Area, as discussed above, future development may include additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts.

Figure 4.1-15
View 1: Existing Versus Post-Project Conditions





Although views of such future development from View 1 would be partially obscured by the hotels and landscaping trees shown in Figure 4.1-15, it is likely that future development would still be visible.

As discussed above, due to the speed limit on Bass Lake Road, public views would be temporary, occurring only as motorists and bicyclists briefly pass by the project site. Nonetheless, future development of the Program Study Area would alter the existing rural landscape to include urban development.

Based on the above, the existing visual character and quality of public views of the project site from View 1 would be considered to be substantially degraded by project buildout.

View 2: Views from Bass Lake Road/Country Club Drive (Looking North Toward the Project Site)

Views from the Bass Lake Road/Country Club Drive intersection looking north currently consist of Bass Lake Road extending from the foreground to the background, as well as midground views of sloping terrain rising in elevation towards the east with grassy vegetation and scattered trees. Background views consist of trees lining the tops of the hill beyond.

Impacts upon View 2 related to the Project Development Area and Project Buildout are discussed separately below.

Project Development Area

Figure 4.1-16 shows a photo simulation of View 2 following buildout of the Project Development Area in comparison to existing conditions. As shown therein, although background views of the hilltops would not be altered by the proposed project, midground views would be fundamentally altered by the presence of residential cottages. Although the landscaping proposed to be planted along the project frontage with Bass Lake Road and Country Club Drive would partially obscure views of the proposed project from View 2, the landscaping would not be sufficient to fully screen views of the proposed residential cottages.

Following buildout of the Project Development Area, development would not be screened from public views. However, because the speed limit on Bass Lake Road is 50 mph, and the speed limit on Country Club Drive is 35 mph along the project frontage, public views would be temporary, occurring only as motorists and bicyclists briefly pass by the project site. Nonetheless, given that the project site is currently undeveloped and affords views of rural landscape, the existing visual character of the site would be significantly altered.

Project Buildout

Due to the orientation of View 2, public views of the Program Study Area portion of the project site are not available from View 2. As such, full buildout of the proposed project would not result in any impacts to the visual quality of the project site from View 2 beyond the impacts associated with buildout of the Project Development Area, as discussed above.

Figure 4.1-16
View 2: Existing Versus Post-Project Conditions





Based on the above, the existing visual character and quality of public views of the project site from View 2 would be considered to be substantially degraded by project buildout.

View 3: Views from Bass Lake Road/Country Club Drive (Looking Southeast Toward the Project Site)

Views from the Bass Lake Road/Country Club Drive intersection looking southeast toward the Program Study Area currently consists of Bass Lake Road and associated traffic lights and road signs in the foreground and midground. Background views consist of undeveloped land covered in grassy vegetation and trees sloping to either side of Bass Lake Road, as well as a dirt roadway and a drainage ditch on the western slope of the project site.

Impacts upon View 3 related to the Project Development Area and Project Buildout are discussed separately below.

Project Development Area

Figure 4.1-17 shows a photo simulation of View 3 following buildout of the Project Development Area in comparison to existing conditions. As shown therein, the majority of View 3 consists of the Program Study Area; as such, most of View 3 would not be impacted by buildout of the Project Development Area. However, the dirt road and drainage ditch on the western slope of the project site, visible in the background, would be developed with vines and additional landscaping that would partially obscure existing views of the hillside and ridge.

Due to the minimal alterations to View 3 that would occur, the existing visual character of View 3 would not be significantly altered by buildout of the Project Development Area.

Project Buildout

While specific building layouts have not yet been planned for future development of the Program Study Area, as discussed above, future development may include additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts. Although views of such future development from View 3 would be partially obscured by the landscaping trees shown in Figure 4.1-17, it is likely that future development would still be prominent.

As discussed above, due to the speed limits on Bass Lake Road and Country Club Drive, public views would be temporary, occurring only as motorists and bicyclists briefly pass by the project site. Nonetheless, future development of the Program Study Area would alter the existing rural landscape to include urban development.

Based on the above, the existing visual character and quality of public views of the project site from View 3 would be considered to be substantially degraded by full project buildout.

Figure 4.1-17
View 3: Existing Versus Post-Project Conditions





View 4: Views from Bass Lake Road (Looking South Toward the Project Site)

Currently, View 4 consists of a paved roadway and the vegetated road shoulders in the foreground, a vegetated hillside, wire fencing, utility poles, and power lines in the midground, and scattered trees partially obscuring the on-site hilltop beyond.

Impacts upon View 4 related to the Project Development Area and Project Buildout are discussed separately below.

Project Development Area

Figure 4.1-18 shows a photo simulation of View 4 following buildout of the Project Development Area in comparison to existing conditions. As shown therein, while foreground and background views would not be significantly altered by buildout of the Project Development Area, the proposed residential cottages would be visible in the midground. The proposed residential structures would completely interrupt existing views of the grassy hillside and hilltop. Landscaping installed as part of the proposed project would serve to partially obscure views of the residential cottages, but would not be sufficient to fully screen the cottages from public views. Because the speed limit on Bass Lake Road is 50 mph along the project frontage, public views would be temporary, occurring only as motorists and bicyclists briefly pass by the project site. Nonetheless, given that the project site is currently undeveloped and affords views of rural landscape, the existing visual character of the site would be significantly altered.

Project Buildout

As shown in Figure 4.1-18, the hilly terrain in the foreground, as well as the proposed cottages and landscaping, would primarily screen public views of the Program Study Area portion of the project site from View 4. As such, full buildout of the proposed project would not result in any impacts to the visual quality of the project site from View 4 beyond the impacts associated with buildout of the Project Development Area, as discussed above.

Based on the above, the existing visual character and quality of public views of the project site from View 4 would be considered to be substantially degraded by the proposed project.

View 5: Views from Country Club Drive (Looking Northwest Toward the Project Site)

Currently, View 5 consists of paved roadway and the dirt shoulder, as well as grassy vegetation and a wire fence, in the foreground. Midground views consist of grassy vegetation and densely packed trees and background views consist of distant hills occupied by grasses and trees.

Impacts upon View 5 related to the Project Development Area and Project Buildout are discussed separately below.

Project Development Area

Figure 4.1-19 shows photo simulations of View 5 following buildout of the Project Development Area in comparison to existing conditions.

Figure 4.1-18
View 4: Existing Versus Post-Project Conditions

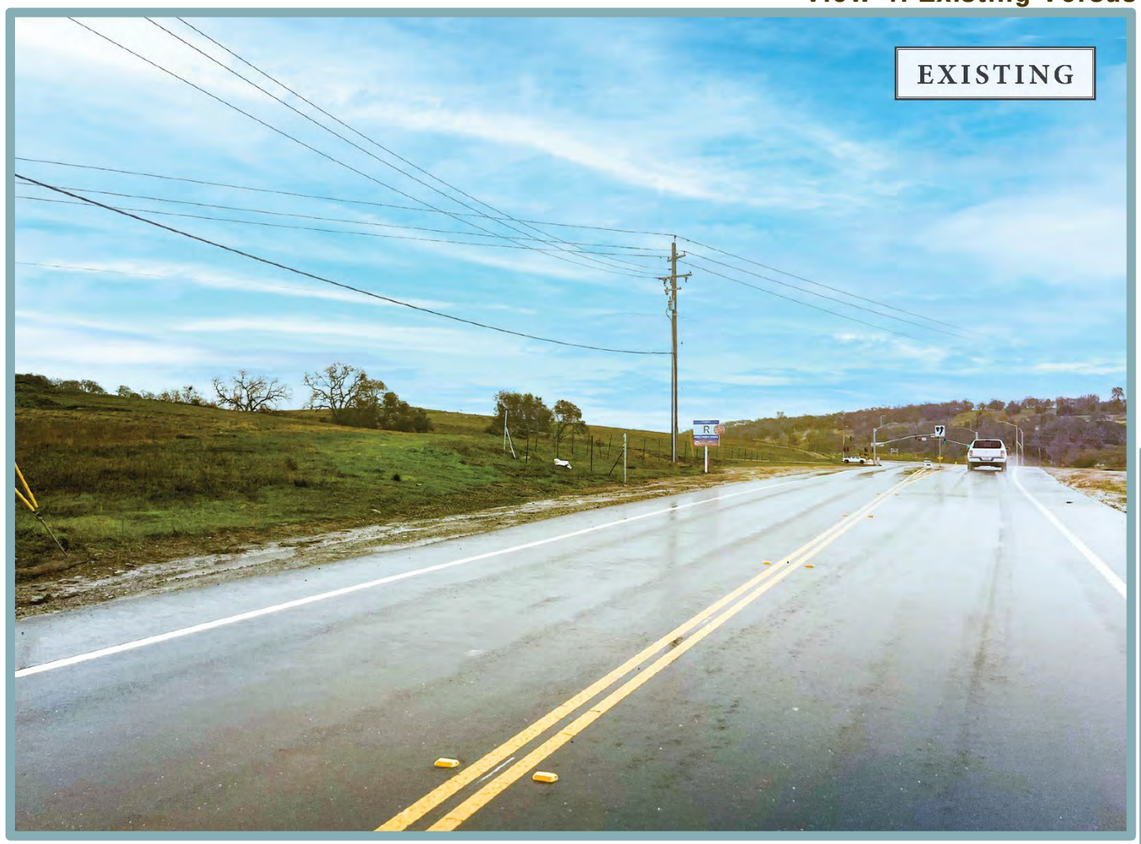
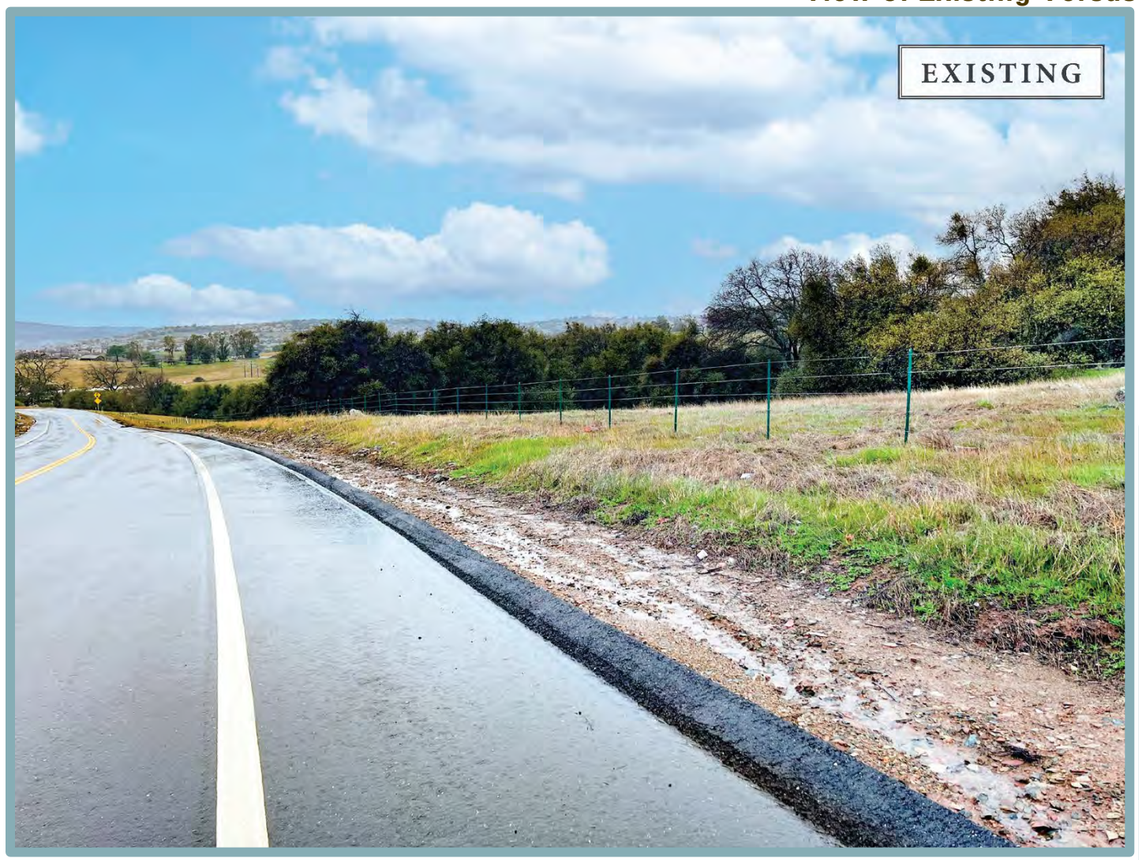




Figure 4.1-19
View 5: Existing Versus Post-Project Conditions





As shown in Figure 4.1-19, while foreground views would not be significantly altered by buildout of the Project Development Area, the proposed residential cottages would be visible in the midground. The residential cottages would replace the existing oak trees that are currently most prominent in the midground of View 5. Even with the installation of landscaping that would serve to partially obscure views of the proposed residential development, the cottages would not be fully screened from view.

Because the speed limit on Country Club Drive is 35 mph along the project frontage, public views would be temporary, occurring only as motorists and bicyclists briefly pass by the project site. In addition, as shown in Figure 4.1-19, background views of distant hilltops would not be interrupted by the proposed development. Nonetheless, given that the project site is currently undeveloped and affords views of rural landscape, the existing visual character of the site would be significantly altered.

Project Buildout

Due to the orientation of View 5, public views of the Program Study Area portion of the project site are not available from View 5. As such, full buildout of the proposed project would not result in any impacts to the visual quality of the project site from View 5 beyond the impacts associated with buildout of the Project Development Area, as discussed above.

Based on the above, the existing visual character and quality of public views of the project site from View 5 would be considered to be substantially degraded by the proposed project.

View 6: Views from Country Club Drive (Looking Southwest Toward the Project Site)

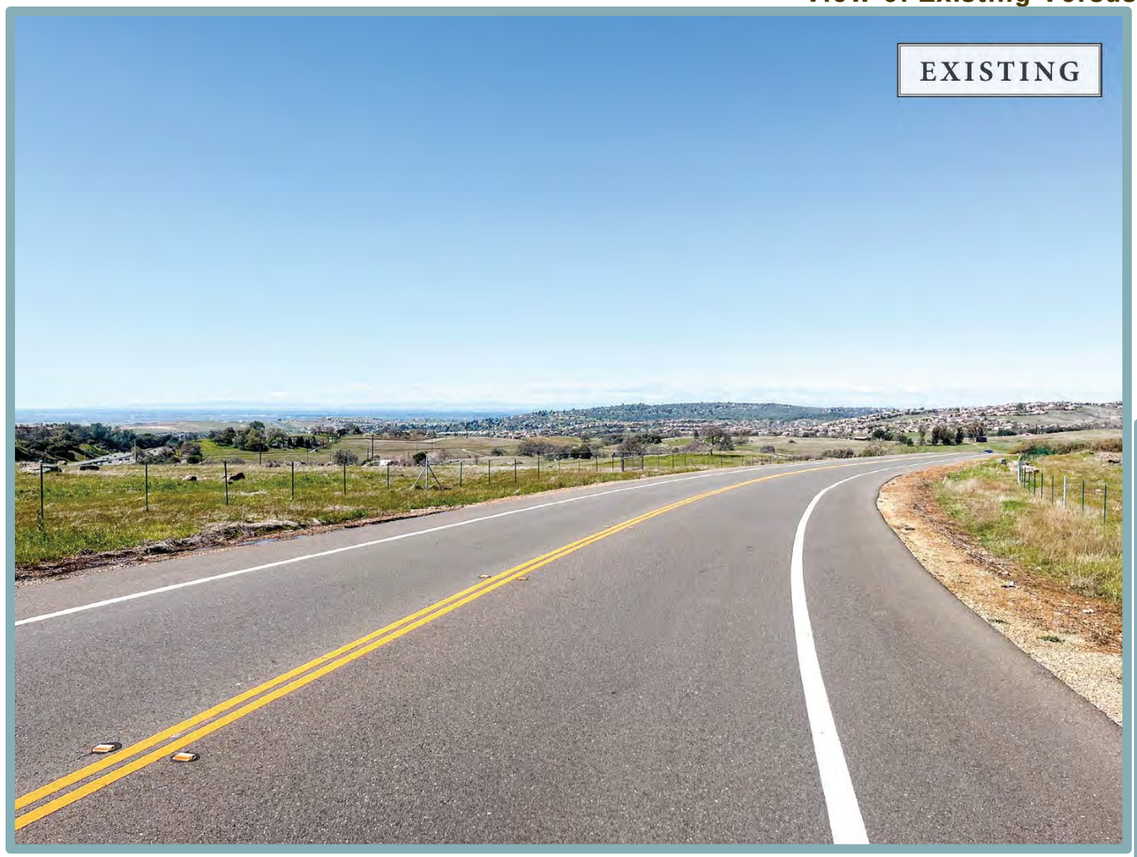
Currently, the foreground of View 6 consists of the paved roadway with dirt shoulders, grassy vegetation, and wire fencing to either side. Midground views consist of grassy vegetation and rock outcroppings on the hillside; the hillside descends toward and into the project site towards the west. Background views consist of residential development on the surrounding hillsides, with distant views of the Sacramento Valley and the Coastal Range to the west.

Impacts upon View 6 related to the Project Development Area and Project Buildout are discussed separately below.

Project Development Area

Figure 4.1-20 shows a photo simulation of View 6 following buildout of the Project Development Area in comparison to existing conditions. As shown therein, foreground and background views would not be significantly altered by buildout of the Project Development Area. The only component of the proposed project within the Project Development Area that would be visible from View 6 would be the proposed hotels located downhill of View 6, the peaks of which would crest just over the top of the hill. While the roofs would intrude upon the existing views of the project site, only a small amount of rural hillside would be obscured. In addition, the speed limit on Country Club Drive is 35 mph along the project frontage. Thus, public views would be temporary, occurring only as motorists and bicyclists briefly pass by the project site.

Figure 4.1-20
View 6: Existing Versus Post-Project Conditions





Due to the minimal intrusion of the proposed development within the Project Development Area, the existing visual character of the site would not be significantly altered by buildout of the Project Development Area.

Project Buildout

The Program Study Area portion of the project site is visible in the midground of View 6. Due to the sloping terrain, the large majority of the Program Study Area is hidden from view; as such, future development within the central portion of the project site would generally not be visible from View 6. However, depending on the orientation of buildings within the Program Study Area, future development along the crest of the hill in the midground of View 6 could block existing background views of residential development on the surrounding hillsides, as well as distant views of the Sacramento Valley and the Coastal Range to the west. Therefore, future buildout of the Program Study Area could substantially degrade existing views of the project site surroundings and the existing visual character of the site would be significantly altered.

Based on the above, the existing visual character and quality of public views of the project site from View 6 would be considered to be substantially degraded by project buildout.

View 7: Views from Westbound US 50 (Looking Northwest Toward the Project Site)

Currently, the foreground of View 7 consists of the paved roadway, utility poles, road signs, and grassy vegetation. Midground views consist of the undeveloped rolling terrain of the project site, which is covered in grasses. Scattered trees and a paved roadway, as well as the rural residence located west of the project site, are also visible. Background views consist of nearby hilltops and distant hillsides with trees and scattered structures.

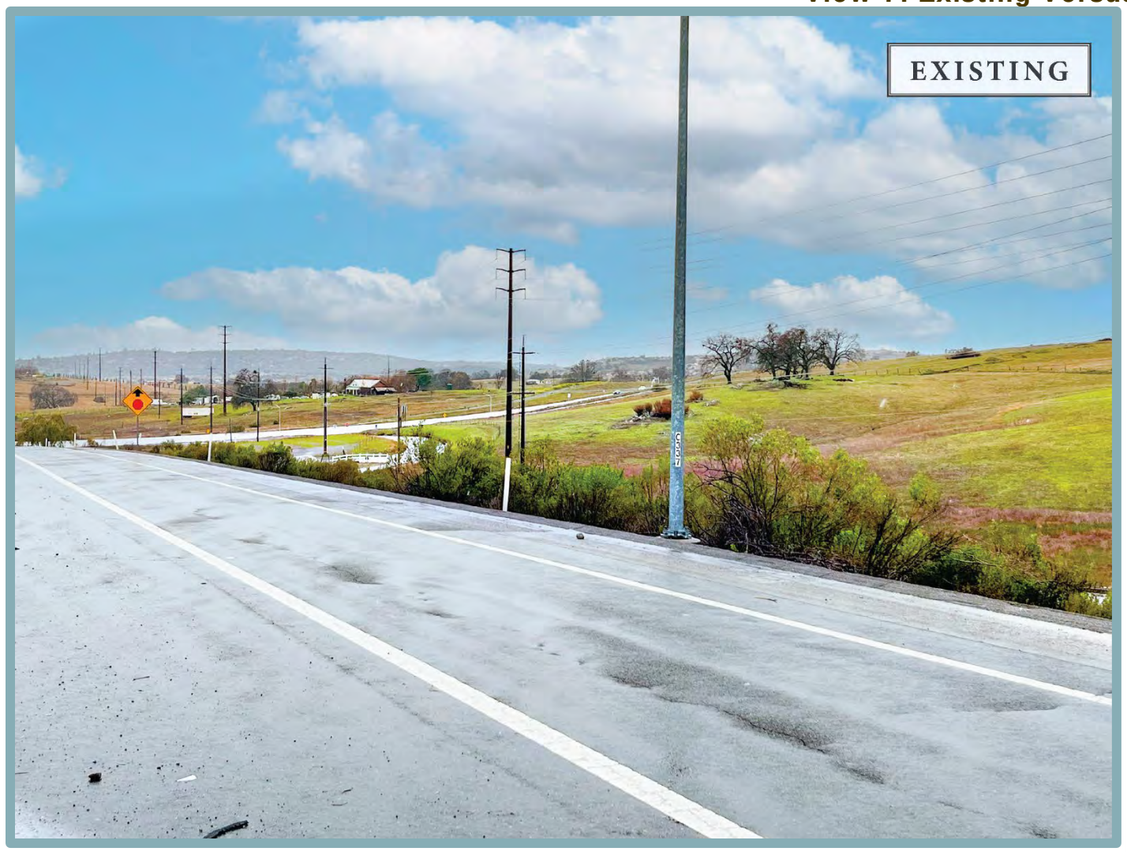
Impacts upon View 7 related to the Project Development Area and Project Buildout are discussed separately below.

Project Development Area

Figure 4.1-21 shows a photo simulation of View 7 following project buildout in comparison to existing conditions. As shown therein, foreground views would not be significantly altered by buildout of the proposed project. However, the grassy hillside in the midground would be developed with the proposed hotels, as well as a parking lot. In addition, existing background views of nearby hilltops would be completely obscured by the proposed structures.

Landscaping would serve to partially cover the proposed development, but would not be sufficient to fully screen the proposed hotel associated parking lot from public views. However, because the speed limit on US 50 in the project vicinity is 65 mph, public views would be temporary, only occurring as motorists briefly pass by the project site. Nonetheless, given that the project site is currently undeveloped and affords views of rural landscape, the existing visual character of the site would be significantly altered.

Figure 4.1-21
View 7: Existing Versus Post-Project Conditions





Project Buildout

Figure 4.1-21 is oriented in such a way that public views of the Program Study Area would be available from View 7, the Program Study Area portion of the project site is only peripherally visible. Although specific plans for the future development within the Program Study Area are not yet available, it is likely that the project frontage along US 50 would be developed with structures similar to those proposed for development within the Project Development Area. Therefore, full project buildout would result in similar impacts to visual quality as those discussed above.

Based on the above, the existing visual character and quality of public views of the project site from View 7 would be considered to be substantially degraded by the proposed project.

View A: Views from US 50 and Bass Lake Road Eastbound Off-Ramp (Looking Northeast Toward the Project Site)

Currently, View A consists of the paved lanes of US 50 in the foreground. Midground views consist of utility poles, road signs, and trees partially obscured by the median that centers US 50. Background views consist of on-site grassy hillsides and trees.

Impacts upon View A related to the Project Development Area and Project Buildout are discussed separately below.

Project Development Area

Figure 4.1-22 shows photo a simulation of View A following buildout of the Project Development Area in comparison to existing conditions. As shown therein, while foreground views would not be altered by buildout of the Project Development Area, the proposed hotels and cottages would be visible in the midground, replacing existing views of trees and the grassy hillside. However, existing midground views are already low quality due to distance and because of the intervening median.

In addition, due to the speed limit on US 50, public views would be temporary, occurring only as motorist briefly pass by the project site. As such, although project buildout would change existing views, such changes would not be considered to be substantial degradation.

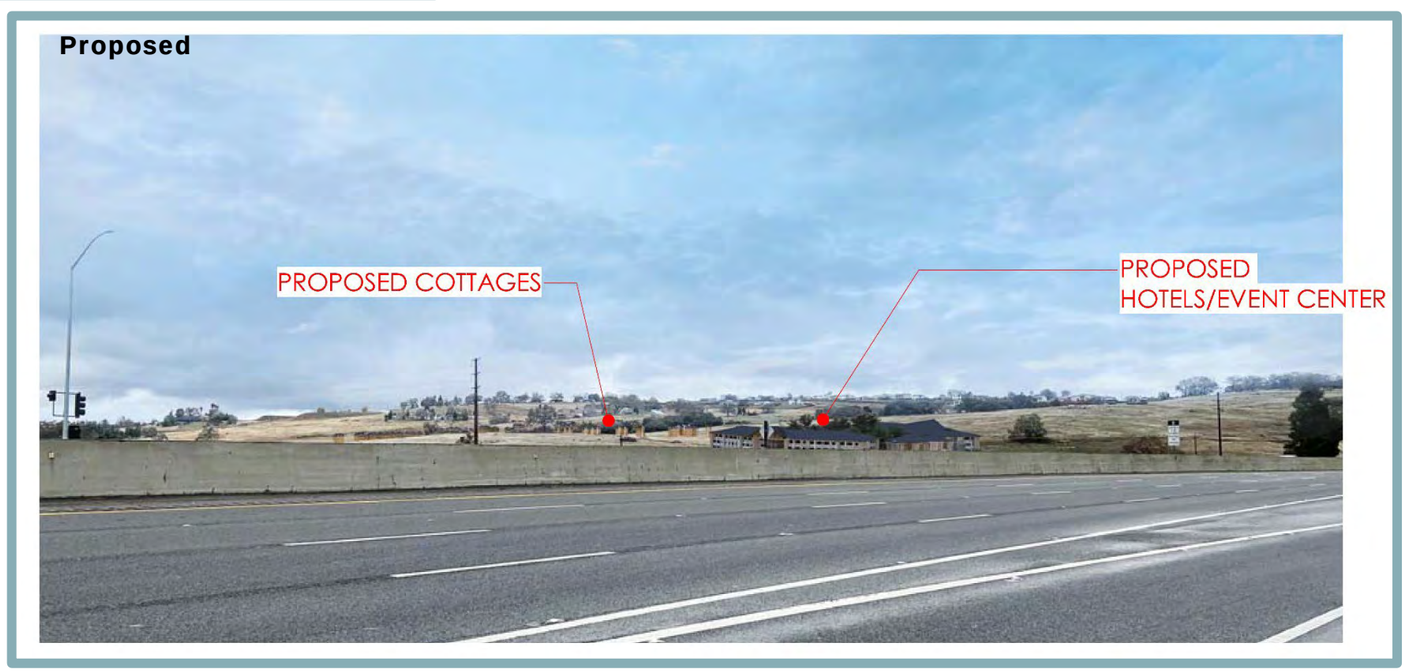
Project Buildout

While specific building layouts have not yet been planned for future development of the Program Study Area, as discussed above, future development may include additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts. Although views of such future development from View A would be partially obscured by landscaping trees and the proposed hotels and cottages, it is likely that future development would still be prominent.

As discussed above, due to the speed limit on US 50, public views would be temporary, occurring only as motorists and bicyclists briefly pass by the project site. Nonetheless, future development of the Program Study Area would alter the existing rural landscape to include urban development.

Figure 4.1-22
View A: Existing Versus Post-Project Conditions





Based on the above, the existing visual character and quality of public views of the project site from View A would be considered to be substantially degraded by full project buildout.

View B: Views from Eastbound US 50 and El Dorado Hills Boulevard Off-Ramp (Looking East Toward the Project Site)

Currently, View B consists of the paved lanes and dirt shoulder of US 50 in the foreground. US 50 stretches into the midground; additional midground views include a medical office building to the right and residential development to the left, as well as street lights and traffic signs. Background views consist of residential development and trees on distant hillsides.

Impacts upon View B related to the Project Development Area and Project Buildout are discussed together below.

Project Development Area and Project Buildout

Figure 4.1-23 shows a photo simulation of View B following buildout of the Project Development Area in comparison to existing conditions. As shown therein, due to the orientation of View B, as well as the distance between View B and the project site, neither the Project Development Area nor the Program Study Area are visible from View B. As such, buildout of the proposed project would not result in any impacts to the visual quality of the project site from View B.

Based on the above, the existing visual character and quality of public views of the project site from View B would not be considered to be substantially degraded by the proposed project.

View C: Views from Westbound US 50 at Crazy Horse Campground (Looking West Toward the Project Site)

Currently, View C consists of the paved lanes, gravel shoulder, and median of US 50. US 50 extends through the midground into the background. Other midground and background views consist of utility poles and trees that line US 50, as well as urban development.

Impacts upon View C related to the Project Development Area and Project Buildout are discussed together below.

Project Development Area and Project Buildout

Figure 4.1-24 shows a photo simulation of View C following buildout of the Project Development Area in comparison to existing conditions. As shown therein, due to the orientation of View C, as well as the distance between View C and the project site, neither the Project Development Area nor the Program Study Area are visible from View C. As such, buildout of the proposed project would not result in any impacts to the visual quality of the project site from View C.

Based on the above, the existing visual character and quality of public views of the project site from View C would not be considered to be substantially degraded by the proposed project.

Figure 4.1-23
View B: Existing Versus Post-Project Conditions





Figure 4.1-24
View C: Existing Versus Post-Project Conditions





Conclusion

Based on the above, both buildout of the Project Development Area and full project buildout would not significantly change views of the project site from Views B and C. However, views of the existing rural character of the project site from Views 1 through 7 (excluding View 3), as well as View A, would be significantly altered by buildout of the Project Development Area; the aforementioned Views, as well as View 3, would also be significantly altered by full project buildout. Therefore, the existing visual character and quality of public views of the site would be substantially degraded by development of both components of the proposed project. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potentially significant impact, but not to a less-than-significant level. As such, the impact would remain *significant and unavoidable*.

Project Development Area and Project Buildout

4.1-3 *In conjunction with submittal of improvement plans, the project applicant shall submit a Final Landscape Plan. As part of the Final Landscape Plan, trees along public roadways on the project frontage shall be a minimum of 24-inch box size as well as a mix of 36-inch and 48-inch box sizes. Trees shall be placed to screen the proposed development to the maximum extent feasible. The Final Landscape Plan shall be subject to review and approval by El Dorado County Planning and Building Department.*

4.1-4 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 following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout to result in impacts related to the creation of a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Project Development Area and Project Buildout

As noted previously, the project site is primarily characterized by an undeveloped, unlit landscape. Thus, development of the project site with residential and commercial uses would introduce additional sources of light and/or glare to a site where minimal sources currently exist.

Individual residential cottages within the project site would introduce new sources of night lighting in the form of exterior light sources such as porch and patio lights, architectural accent lighting, motion-activated security lighting, driveway lighting, landscape lighting, and interior lighting visible through windows. Commercial uses would introduce new sources of lighting, such as architectural accent lighting, motion-activated security lighting, parking lot lighting, landscape lighting, and interior lighting

visible through windows. Lighting could also be interspersed along the proposed bicycle paths and pedestrian trails for safety purposes.

Because the types of lighting and the specific locations have not yet been determined, the proposed project could increase the amount of light and glare generated on-site, which could be visible from the surrounding residential development and roadways in the project vicinity, including contributions to nighttime sky glow that deteriorate the "dark sky" setting of the project site and surround environs. However, the proposed project would be designed in compliance with the standards established in Chapter 130.34, Outdoor Lighting, of the El Dorado County Code, which requires that all outdoor lighting be located, adequately shielded, and directed such that direct light does not fall outside of the property line or into the public right-of-way. In addition, General Plan Policy 2.8.1.1 requires all development to limit excess nighttime light and glare from parking area lighting, signage, and buildings. Therefore, the proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area, 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.

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 worsened 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 cumulative, including night sky lighting and overall changes in the visual environment as the result of increasing urbanization of large areas. As development in one area increases and possibly expands over time and meets or connects with development in an adjoining exurban area, the effect of night sky lighting experienced outside of the region may increase in the form 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 proposed project's incremental contribution to night sky lighting and changes in visual character are addressed below.

The following discussion of impacts is based on the implementation of the proposed project in combination with other proposed and pending projects in the region. Other proposed and pending projects in the region under the cumulative context would generally include buildout of the project site in conjunction with the cumulative development within El Dorado County. For more details regarding the cumulative setting, refer to Chapter 5, Statutorily Required Sections, of this EIR.

4.1-5 Long-term changes in visual character associated with development of the proposed project in combination with future buildout of the El Dorado County General Plan. Based on the analysis below, the project's incremental contribution to the significant cumulative impact is *significant and unavoidable*.

The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout to result in cumulative impacts related to long-term changes in visual character associated with development of the proposed project in combination with future buildout of the El Dorado County General Plan.

Project Development Area and Project Buildout

As discussed previously, the landscape in the project vicinity is similar to that of the project site, consisting of rolling topography and grassy vegetation. Surrounding land uses include undeveloped land and rural residences within the BLHSP to the north; rural residences to the west; the El Dorado Hills Fire Department Station 86 to the northwest; undeveloped land and rural residences to the south, across US 50; and undeveloped land to the east, with the Holy Trinity Parish and School located farther east.

In addition to the existing development in the project vicinity, multiple Tentative Subdivision Maps have been approved for properties within the BLHSP, north of the project site, which are undergoing development. In addition to development that may occur within the study viewshed, consistent with the BLHSP, a list of other reasonably foreseeable projects involving General Plan Amendments in the cumulative setting for the proposed project is provided in Chapter 5, Statutorily Required Sections, of this EIR. The cumulative development listed therein includes the Village of Marble Valley Specific Plan (VMVSP) and the Lime Rock Valley Specific Plan (LRVSP), both of which are located south of the project site, across US 50. As such, neither the VMVSP nor the LRVSP would be clearly visible from the project site, and, thus, would not be relevant in terms of cumulative aesthetic impacts. The cumulative development that is most relevant in terms of cumulative aesthetic impacts include planned and future development within the BLHSP. For example, given the BLHSP land use designations of the parcels surrounding the project site, cumulative buildout of the BLHSP would include future development of the surrounding hills with low density residential uses.

The majority of the foregoing development in the project vicinity is proposed on what is currently undeveloped rural landscape. As such, cumulative development within the County would involve the conversion of vacant rural land to urban uses, which would constitute a significant change in visual character. Therefore, changes to visual

character and quality, as a result of the proposed project, could potentially combine with impacts from future cumulative development in the project vicinity.

The General Plan EIR evaluated potential impacts that could occur to the existing visual character of the planning area through development facilitated by the buildout of the General Plan, noting that development of a significant amount of currently undeveloped land could result in a significant change to the visual character and quality of the County. However, similar to the proposed project, all future development would be subject to a range of goals and policies in the General Plan that seek to direct growth into already urbanized areas, support the visual quality and character of the County, and achieve a balance between allowing new development and preserving the County's valued open spaces and scenic resources. Nonetheless, the Bass Lake EIR concluded that impacts related to aesthetics associated with buildout of the BLHSP would be significant and unavoidable.

As discussed under Impact 4.1-3, development of the proposed project would substantially degrade the visual character and the quality of public views of the project site. In context with the planned development in the project vicinity, the proposed project would contribute towards significantly altering the visual character of the surroundings. Therefore, the proposed project's incremental contribution to such impacts would be ***significant***.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potentially significant impact, but not to a less-than-significant level. As such, the impact would remain *significant and unavoidable*.

Project Development Area and Project Buildout

4.1-5 Implement Mitigation Measure 4.1-3.

4.1-6 Creation of new sources of light or glare associated with development of the proposed project in combination with future development of the El Dorado County General Plan. Based on the analysis below, the project's incremental contribution to the significant cumulative impact is *less than cumulatively considerable*.

The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout to result in cumulative impacts related to the creation of new sources of light or glare associated with development of the proposed project in combination with future development of the El Dorado County General Plan.

Project Development Area and Project Buildout

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 General Plan planning area, particularly conversion of rural or currently vacant 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 residential development in the project vicinity, such as the rural residential uses to the north, west, and south of the project site.

However, cumulative development within the General Plan planning area, including the proposed project and future projects with the same viewshed, would be subject to existing regulations and guidelines related to light and glare. For example, Chapter 130.34, Outdoor Lighting, of the El Dorado County Code, requires that all outdoor lighting be located, adequately shielded, and directed such that direct light does not fall outside of the property line or into the public right-of-way. In addition, General Plan Policy 2.8.1.1 requires all development to limit excess nighttime light and glare from parking area lighting, signage, and buildings.

The General Plan EIR determined that buildout of the General Plan could result in the creation of new sources of light and glare in currently undeveloped areas of the County. However, future development throughout the County would be required to comply with the aforementioned General Plan policies as well as the El Dorado County Code, which would reduce potential impacts associated with light and glare to a less-than-significant level.

Based upon the above analysis, cumulative development within El Dorado County would be subject to all applicable requirements of Chapter 130.34 of the El Dorado County Code and General Plan Policy 2.8.1.1. Compliance with such would ensure that buildout of the proposed project, in combination with cumulative development of the County's General Plan, would not result in a significant cumulative impact related to light and glare and the 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 proposed 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 local and regional air quality, GHG, and energy impacts resulting from construction and operation of the project. In addition, the chapter includes mitigation measures warranted to reduce or eliminate any identified significant impacts. The chapter is primarily based on information and guidance within the El Dorado County Air Quality Management District's (EDCAQMD's) CEQA Air Quality Handbook,[1] as well as the El Dorado County General Plan,[2] the El Dorado County General Plan EIR,[3] and a technical analysis performed by Raney Planning and Management, Inc (see Appendix D). Further information was sourced from the Bass Lake Hills Specific Plan (BLHSP)[4] and the Bass Lake Road Study Area Program EIR (Bass Lake EIR), as applicable.[5]

4.2.2 EXISTING ENVIRONMENTAL SETTING

The following information provides an overview of the existing environmental setting in relation to air quality within the proposed project area. Air basin characteristics, ambient air quality standards (AAQS), attainment status and regional air quality plans, local air quality monitoring, odors, and sensitive receptors are discussed. In addition to the information pertaining to air quality, information related to climate change and GHGs, as well as energy, is provided.

Air Basin Characteristics

The proposed project is located in El Dorado County, which falls within the Mountain Counties Air Basin (MCAB), and is within the jurisdictional boundaries of the EDCAQMD. The MCAB includes portions of Amador, Calaveras, El Dorado, Mariposa, Nevada, Placer, Plumas, Sierra, and Tuolumne counties, and is composed of seven air districts within the central and northern Sierra Nevada mountain range with elevations ranging from several hundred feet in the foothills to over 6,000 feet above mean sea level along the Sierra ridge.

The climate of the MCAB is influenced by the foothill and mountainous terrain unique to the counties included in the MCAB. The general climate of the MCAB varies considerably with elevation and proximity to the Sierra ridge. The terrain features of the MCAB allow various climates to exist in relatively close proximity. The pattern of mountains and hills causes a wide variation in rainfall, temperature, and localized winds throughout the MCAB. Temperature variations have an important influence on basin wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry. In the winter, the Sierra Nevada Range receives large

1 El Dorado County Air Pollution Control District. *Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts Under the California Environmental Quality Act.* February 2002.
2 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.
3 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.
4 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
5 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

amounts of precipitation from storms moving in from the Pacific. In the summer, the area receives lighter amounts of precipitation from intermittent "monsoonal" moisture flows from the south and cumulus buildup. Precipitation levels are high in the highest mountain elevations but decline rapidly toward the western portion of the MCAB. Winter temperatures in the mountains can be below freezing for weeks at a time and substantial depths of snow can accumulate, while in the summer, temperatures in the mountains are mild, with daytime peaks in the 70s to low 80s Fahrenheit.

Due to the topographical features and meteorological conditions of the region, local conditions predominate in determining the effect of emissions in the MCAB, and, thus, the MCAB is more sensitive to negative impacts on air quality than most other areas of the State. Regional air flows are affected by the mountains and hills, which direct surface air flows, cause shallow vertical mixing, and hinder dispersion, creating areas of high pollutant concentrations. Cold temperatures and mild winds often result in temperature inversions in which upper layers of warmer air trap colder air near the land surface. Local pollutant sources within the area are trapped by frequent inversions, which limit the volume of air into which pollutants can be mixed and, thus, resulting in elevated pollutant concentrations. The most frequent episodes of high pollution occur during local basin inversions, when emissions from local sources such as motor vehicles, chimney smoke, and forest burning are trapped in the basin. In the winter, local basin inversions can lead to carbon monoxide (CO) "hotspots" along heavily traveled roads and at busy intersections.

During summer's longer daylight hours, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy necessary for the photochemical reaction between reactive organic compounds (ROG) and oxides of nitrogen (NO_x), which results in the formation of ozone. Ozone is considered a regional pollutant rather than a local hotspot problem due to the prolonged formation time of the pollutant. In addition, summer conditions allow strong upwind valley air to flow into the MCAB from the Central Valley, creating an effective transport medium for ozone precursors and for ozone generated in the Bay Area and the Sacramento and San Joaquin Valleys. The transported pollutants are the predominant cause of ozone in the MCAB.

Air quality in the project vicinity is influenced by both local and distant emission sources. Air pollutant sources in the immediate project vicinity primarily include emissions from vehicle traffic on nearby roadways. Other sources of air pollutants in the area include activities associated with commercial, residential, and industrial land uses.

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 national 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 in the following section.

Table 4.2-1
Summary of Criteria Pollutants

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

Sources:

- ***CARB. California Ambient Air Quality Standards (CAAQS). Available at: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed April 2024.***
- ***Sacramento Metropolitan, El Dorado, Feather River, Placer, and Yolo-Solano Air Districts, Spare the Air website. Air Quality Information for the Sacramento Region. Available at: sparetheair.com. Accessed April 2024.***
- ***CARB. Glossary of Air Pollution Terms. Available at: https://ww2.arb.ca.gov/glossary. Accessed April 2024.***

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	12 ug/m^3	15 ug/m^3
	24 Hour	-	35 ug/m^3	Same as primary
Lead	30 Day Average	1.5 ug/m^3	-	-
	Calendar Quarter	-	1.5 ug/m^3	Same as primary
Sulfates	24 Hour	25 ug/m^3	-	-
Hydrogen Sulfide	1 Hour	0.03 ppm	-	-
Vinyl Chloride	24 Hour	0.010 ppm	-	-
Visibility Reducing Particles	8 Hour	see note below	-	-

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

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

Source: CARB. Ambient Air Quality Standards. May 4, 2016. Available at: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed April 2024.

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 ROG and 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

ROG refers to several reactive chemical gases composed of hydrocarbon compounds typically found in paints and solvents that contribute 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

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

Nitrogen Dioxide

A particular oxide of nitrogen that is of concern to human health is NO_2. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas.

A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. The strongest health evidence, and the health basis for the AAQS for NO_2, results from controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, several epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO_2 exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher compared to lower levels of exposure. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.

Carbon Monoxide

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

Sulfur Dioxide

Sulfur dioxide (SO_2) is a colorless, irritating gas with a rotten egg odor formed primarily by the combustion of sulfur-containing fossil fuels from mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Similar to airborne NO_X, suspended sulfur oxide particles contribute to poor visibility. The sulfur oxide particles are also a component of PM_{10}.

Particulate Matter

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

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

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

Lead

Lead is a relatively soft and chemically resistant metal that is a natural constituent of air, water, and the biosphere. Lead 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 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 AAQS may include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms could include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children. Lead also causes cancer.

Sulfates

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

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

Hydrogen Sulfide

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

Vinyl Chloride

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

Visibility Reducing Particles

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

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are also a category of environmental concern. TACs are present in many types of emissions with varying

degrees of toxicity. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Common stationary sources of TACs include gasoline stations, dry cleaners, and diesel backup generators, which are subject to EDCAQMD 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 ROG 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. The small diameter of UFPs imparts the particulates with unique attributes, such as high surface areas and the ability to penetrate deeply into lungs. Once UFPs have been deposited in lungs, the small diameter allows the UFPs to be transferred to the bloodstream. The high surface area of the UFPs also allows for a greater adsorption of other chemicals, which are transported along with the UFPs into the bloodstream of the inhaler, where the chemicals can eventually reach critical organs.[7] The penetration capability of UFPs may contribute to adverse health effects related to heart, lung, and other organ health.[8] UFPs are a subset of DPM and activities that create large amounts of DPM, such as the operations involving heavy diesel-

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

powered engines, also release UFPs. Considering that UFPs are a subset of DPM, and DPM represents a subset of $PM_{2.5}$, estimations of either concentrations or emissions of $PM_{2.5}$ or DPM include 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 can 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.

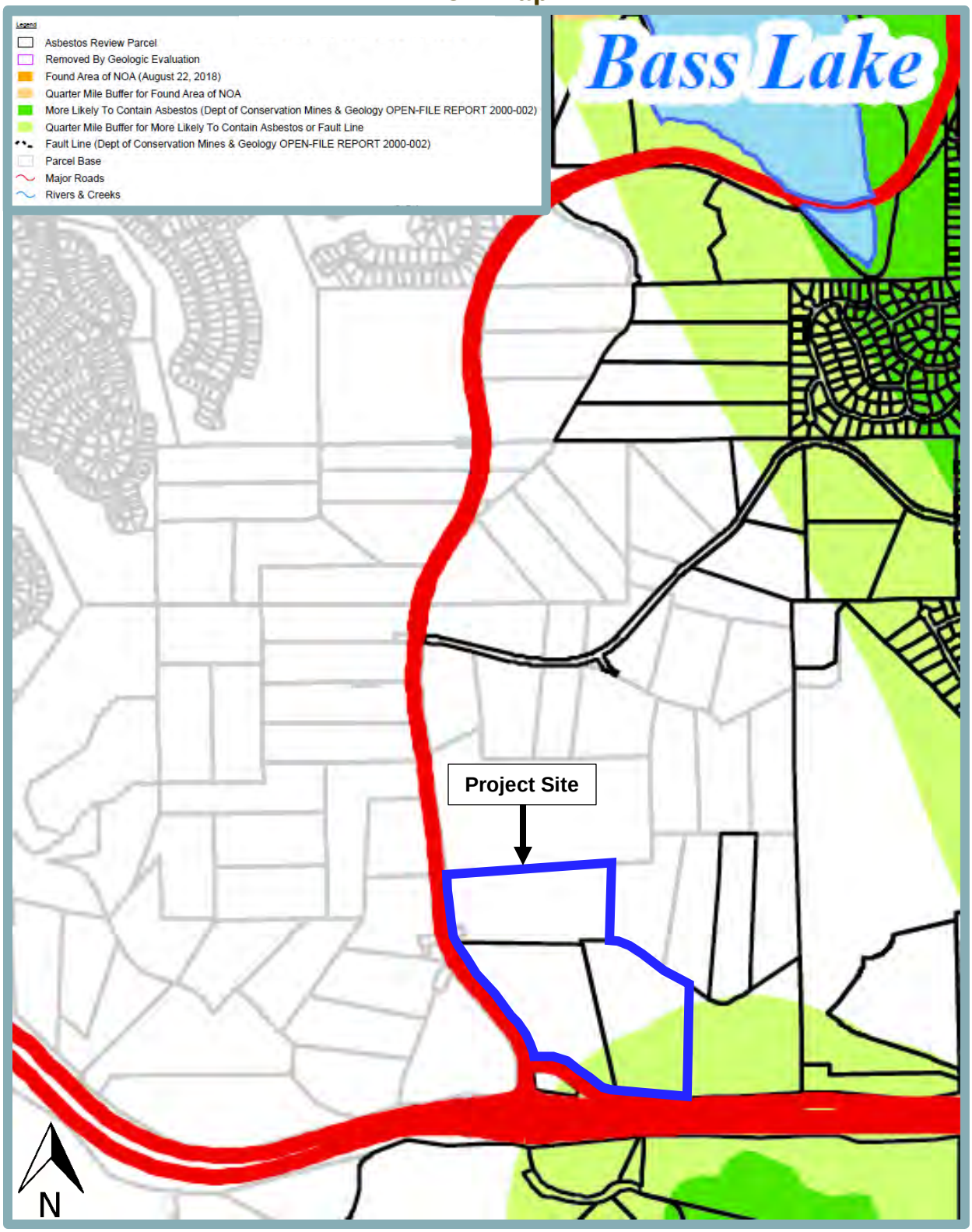
NOA is typically associated with fault zones, and areas containing serpentinite or contacts between serpentinite and other types of rocks. According to the California Geological Survey (CGS) El Dorado County Naturally Occurring Asbestos Review Map, the majority of the project site is not in a NOA review zone; however, the southeast corner of the site has been identified as being located within a quarter-mile buffer for areas more likely to contain asbestos (see Figure 4.2-1),[9] which is considered an El Dorado County review area for NOA.

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. Areas not meeting the NAAQS are designated by the USEPA as nonattainment. Further classifications of nonattainment areas are based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious. Because of the differences between the national and State standards, the designation of nonattainment areas is different under the federal and State legislation. The FCAA requires areas violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures for states to use to attain the NAAQS. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA reviews SIPs to determine if they conform to the mandates of the FCAA amendments and would achieve air quality goals when implemented.

[9] El Dorado County. *Asbestos Review Areas, Western Slope, County of El Dorado, State of California*. August 24, 2018. Available at: https://www.edcgov.us/Government/AirQualityManagement/Pages/asbestos_maps.aspx. Accessed April 2024.

Figure 4.2-1
NOA Map



Source: El Dorado County, 2018.

The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the CCAA. The CCAA classifies ozone nonattainment areas as moderate, serious, severe, and extreme based on severity of violations of CAAQS. The CCAA requires local air pollution control districts with air quality that is in violation of CAAQS to prepare air quality attainment plans that demonstrate district-wide emission reductions of five percent per year averaged over consecutive three-year periods, unless an approved alternative measure of progress is developed.

As presented in Table 4.2-3, the El Dorado County portion of the MCAB is designated as nonattainment for the State and federal ozone, State PM_{10}, and federal $PM_{2.5}$ standards, and attainment or unclassified for all other AAQS.

Table 4.2-3
El Dorado County Attainment Status Designations

Pollutant	California Standards	Federal Standards
1-hour Ozone	**Nonattainment**	Revoked in 2005
8-hour Ozone	**Nonattainment**	**Serious Nonattainment**
Carbon Monoxide	Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified/Attainment
24-hour Respirable Particulate Matter (PM_{10})	**Nonattainment**	Unclassified/Attainment
Annual PM_{10}	**Nonattainment**	--
24-hour Fine Particulate Matter ($PM_{2.5}$)	--	**Nonattainment**
Annual $PM_{2.5}$	Unclassified	**Nonattainment**

Source: CARB. Maps of State and Federal Area Designations. Available at: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations. Accessed April 2024.

In compliance with the FCAA and CCAA, due to the nonattainment designations, the EDCAQMD, along with the other air districts in the MCAB 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.

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 project site is the Folsom-Natoma Street station, which is located at 50 Natoma Street, approximately 10 miles west of the project site. Based on the data available from the applicable monitoring station, Table 4.2-4 presents the number of days that the NAAQS and CAAQS were exceeded for the three-year period from 2020 to 2022.

Table 4.2-4
Air Quality Data Summary (2020-2022)

Pollutant	Standard	Days Standard Was Exceeded		
		2020	2021	2022
1-Hour Ozone	State	0	5	0
	Federal	0	0	0
8-Hour Ozone	State	0	30	4
	Federal	0	29	3
24-Hour $PM_{2.5}$*	Federal	0	10	2
24-Hour PM_{10}*	State	10	4	1
	Federal	1	0	0
1-Hour Nitrogen Dioxide*	State	0	0	0
	Federal	0	0	0

* Data from the Folsom-Natoma Street station was not available for the 24-Hour PM_{10} standards. As a result, data from the next nearest available monitoring station, the Sacramento-Branch Center Road #2 Station, was used.

Source: CARB. Aerometric Data Analysis and Management (iADAM) System. Available at: http://www.arb.ca.gov/adam/welcome.html. Accessed April 2024.

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. Adverse effects of odors on residential areas and other sensitive receptors warrant the closest scrutiny; but consideration is 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 project 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. The nearest sensitive receptors to the project site are rural residences located to the northeast and west of the project site, with the nearest residence located approximately 500 feet from the site's western boundary, across Bass Lake Road.

Greenhouse Gas Emissions

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

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

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

Global Warming Potential

Global warming potential (GWP) is one type of simplified index (based upon radiative properties) that can be used to estimate the potential future impacts of emissions of various gases. According to the USEPA, the GWP of a gas, or aerosol, to trap heat in the atmosphere is the "cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit

[10] U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions*. Available at: https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions. Accessed April 2024.

mass of gas relative to a reference gas." The reference gas for comparison is CO_2. GWP is based on a number of factors, including the heat-absorbing ability of each gas relative to that of CO_2, as well as the decay rate of each gas relative to that of CO_2. Each gas's GWP is determined by comparing the radiative forcing associated with emissions of that gas versus the radiative forcing associated with emissions of the same mass of CO_2, for which the GWP is set at one. Methane gas, for example, is estimated by the USEPA to have a comparative global warming potential 25 times greater than that of CO_2, as shown in Table 4.2-5.

Table 4.2-5
GWPs and Atmospheric Lifetimes of Select GHGs

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

[1] For a given amount of CO_2 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: 1990-2019 [Table 1-2]. April 14, 2021.*

As shown in the table, at the extreme end of the scale, sulfur hexafluoride is estimated to have a comparative GWP 22,800 times that of CO_2. The atmospheric lifetimes of such GHGs are estimated by the USEPA to vary from 50 to 200 years for CO_2, to 50,000 years for CF_4. 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 CO_2 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.[11] Signs that global climate change has occurred include:

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

[11] Intergovernmental Panel on Climate Change. *Climate Change 2021: The Physical Science Basis Summary for Policymakers*. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf. Accessed April 2024.

- Ocean acidification.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. 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,[12] 190 percent of the average for March 2023,[13] 237 percent of the average for April 2023,[14] and 254 percent of the average for May of 2023.[15]

In El Dorado County, specifically, the number of extreme heat days (defined as days where temperatures exceed 92.4 F) could reach an average of 58 days per year, as compared to the four days per year that occur now.[16] While California could not see the average annual precipitation changing significantly in the next 50 to 75 years, precipitation could likely be

[12] California Department of Water Resources. *Second Snow Survey Reflects Boost from Atmospheric Rivers.* Available at: https://water.ca.gov/News/News-Releases/2023/Feb-23/Second-Snow-Survey-Reflects-Boost-from-Atmospheric-Rivers. Accessed April 2024.

[13] California Department of Water Resources. *California's Snowpack Shows Huge Gains from Recent Storms.* Available at: https://water.ca.gov/News/News-Releases/2023/March-23/March-2023-Snow-Survey. Accessed April 2024.

[14] California Department of Water Resources. *California's Snowpack is Now One of the Largest Ever, Bringing Drought Relief, Flooding Concerns.* Available at: https://water.ca.gov/News/News-Releases/2023/April-23/Snow-Survey-April-2023. Accessed April 2024.

[15] California Department of Water Resources. *DWR Conducts May 1 Snow Survey to Continue to Collect Data on Spring Runoff.* Available at: https://water.ca.gov/News/News-Releases/2023/May-2023/May-2023-Snow-Survey. Accessed April 2024.

[16] Cal-Adapt. *Local Climate Change Snapshot for El Dorado County, California*. Available at: https://cal-adapt.org/tools/local-climate-change-snapshot/. Accessed April 2024.

delivered in more intense storms and within a shorter wet season. For example, the 30-year average length of dry spell in the County is 72 days. By the end of the century, the average dry spell could be up to 82 days.[17]

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.[18] 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 2022, California was the fourth-largest electricity producer in the nation. 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 4.2-2 presents the sources that are used to produce energy in the State. As presented therein, energy is mostly generated from natural gas combustion, followed by non-hydroelectric renewables (such as wind and solar) and hydroelectric.

Figure 4.2-3 presents energy consumption within California for the most recent year for which data is available (2021). As shown in the figure, transportation-related activity consumes the largest single share of energy within the State. The second largest consumer is the industrial sector.

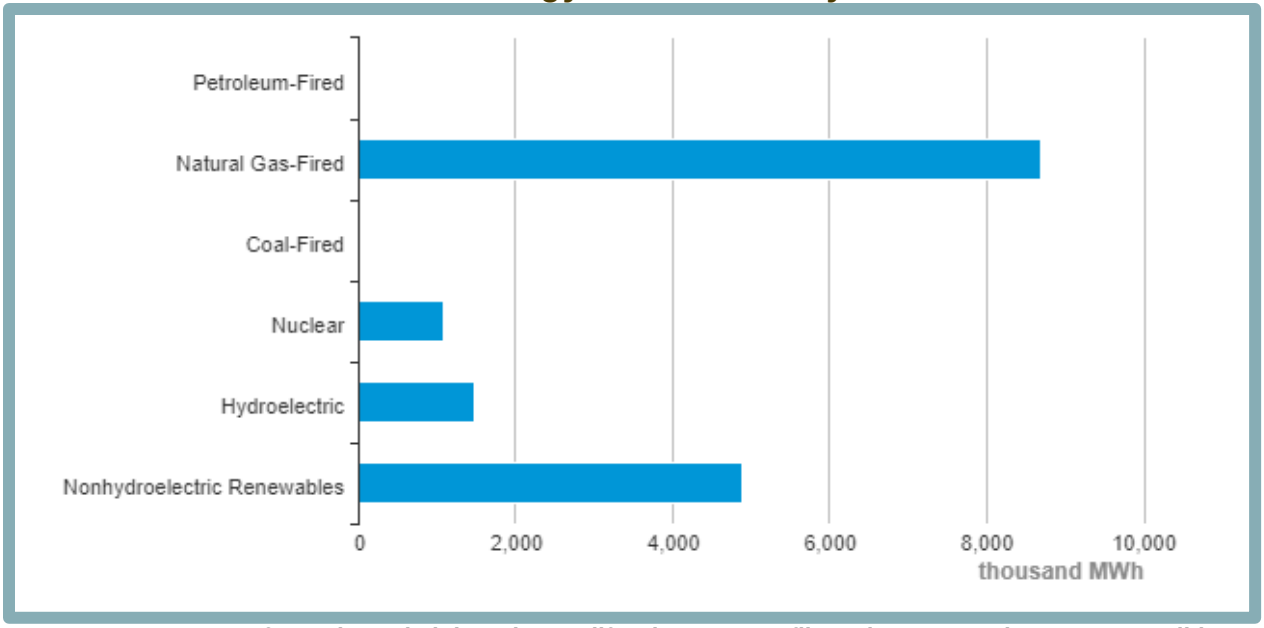
Of the total electricity supplied to the State in 2022, El Dorado County consumed approximately 1,259.5 GWh, which constitutes approximately 0.4 percent of the total energy consumed within the State that year.[19]

Local Energy Use

Electricity and natural gas in the project area are currently provided by Pacific Gas and Electric (PG&E). However, the project site (including both the Project Development Area and the Program Study Area) is currently undeveloped. Structures do not exist on-site and, as a result, the project site does not currently generate demand for energy resources.

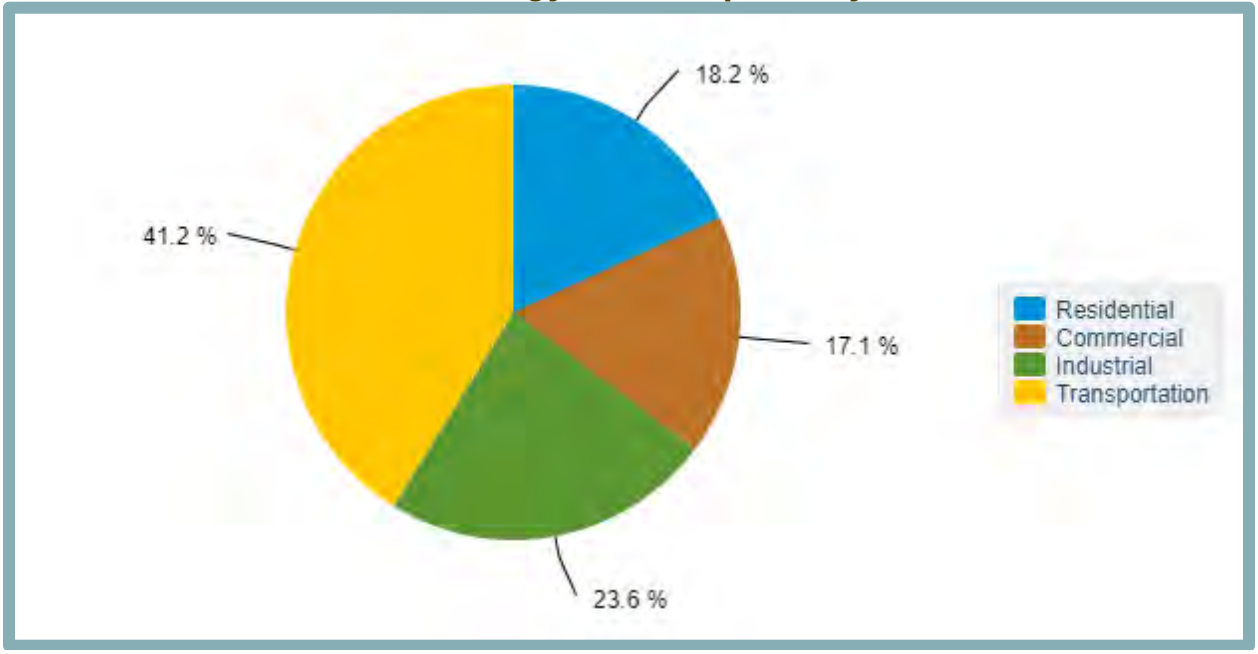
[17] Cal-Adapt. *Local Climate Change Snapshot for El Dorado County, California*. Available at: https://cal-adapt.org/tools/local-climate-change-snapshot/. Accessed April 2024.
[18] U.S. Department of Energy. *State of California Energy Sector Risk Profile.* March 2021.
[19] California Energy Commission. *Electricity Consumption by County*. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed April 2024.

Figure 4.2-2
California Energy Generation by Source



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed April 2024.

Figure 4.2-3
California Energy Consumption by Sector



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed April 2024.

Public Safety Power Shutoffs

In an effort to prevent fires, PG&E initiated public safety power shutoffs (PSPS) in 2019, which may continue in subsequent years until fire risks associated with power lines are decreased. PSPS events involve PG&E turning off electrical service during times when the weather is predicted to have a heightened fire risk from gusty winds and dry conditions. Dependent on the fire risks, the power outage events may occur in specific areas or for all PG&E customers across the County. Based on the project site's location, the site is not located within an area that is more likely to be affected by a PSPS event.[20]

4.2.3 REGULATORY CONTEXT

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

Federal Regulations Related to Air Quality

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

Criteria Pollutants

The FCAA, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The USEPA is responsible for implementing most aspects of the FCAA, including setting NAAQS for major air pollutants; setting hazardous air pollutant standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric ozone protection measures, and enforcement provisions. Under the FCAA, NAAQS are established for the following criteria pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

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

Hazardous Air Pollutants/Toxic Air Contaminants

The 1977 FCAA amendments required the USEPA to identify national emission standards for hazardous air pollutants to protect public health and welfare. Hazardous air pollutants include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under

[20] Pacific Gas & Electric Co. *Interactive PSPS Planning Map.* Available at: https://vizmap.ss.pge.com/. Accessed April 2024.

the 1990 FCAA Amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

Federal Regulations Related to GHG Emissions

The following are the federal regulations relevant to GHG emissions.

Federal Vehicle Standards

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

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

In August 2018, the USEPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new, less-stringent standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards that were previously in place, the 2018 proposal would increase U.S. fuel consumption by approximately 0.5 million barrels per day, and would impact the global climate by 3/1000th of one degree Celsius by 2100. California and other states stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures, and committed to cooperating with other countries to implement global climate change initiatives.

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

issue their own GHG emissions standards and zero-emissions vehicle mandates.[21] In addition, the Part Two Rule was adopted to revise the existing national GHG emission standards for passenger cars and light trucks through model year 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and will result in avoiding more than three billion tons of GHG emissions through 2050.[22]

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; however, 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 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.

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21 National Highway Traffic Safety Administration. *In Removing Major Roadblock to State Action on Emissions Standards, U.S. Department of Transportation Advances Biden-Harris Administration's Climate and Jobs Goals.* Available at: https://www.nhtsa.gov/press-releases/cafe-preemption-final-rule. Accessed April 2024.

22 U.S. Environmental Protection Agency. *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed April 2024.

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

Hazardous Air Pollutants/Toxic Air Contaminants

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

CARB Air Quality and Land Use Handbook

CARB's Air Quality and Land Use Handbook: A Community Health Perspective (CARB Handbook) addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, in the vicinity of intensive air pollutant emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities.[23] 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".[24]

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,

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

including housing and transportation needs, economic development priorities, and other quality of life issues".[25]

Diesel Particulate Matter

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

Heavy-Duty Diesel Truck and Bus Regulation

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

California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person must not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have 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.[26] 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

[25] *Ibid.*

[26] California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. October 24, 2013. Available at: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling. Accessed April 2024.

producing alternative technologies such as diesel-fueled auxiliary power systems and fuel-fired heaters are also required to meet emission performance requirements that ensure emissions are not exceeding the emissions of a truck engine operating at idle.

In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO_X emissions from in-use (existing), off-road, heavy-duty diesel vehicles in California.[27] 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. All fleets are currently prohibited from adding Tier 0, Tier 1, or Tier 2 vehicles to the fleet. In addition, starting January 1, 2024, fleets with a total horsepower over 2,501, excluding non-profit training centers, may not add any Tier 3 or Tier 4 Interim vehicles.[28]

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 the California Environmental Protection Agency (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 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

[27] 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 April 2024.
[28] California Air Resources Board. *Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation.* August 29, 2023.

agencies' operations, and shows reductions that have occurred in the two years prior to publication.

Assembly Bill 32

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

Executive Order B-30-15

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

Senate Bill 32 and Assembly Bill 197

Senate Bill (SB) 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, to provide ongoing oversight over implementation of the State's climate policies. AB 197 also added two members of the Legislature to the Board as non-voting members; requires CARB to make available and update (at least annually via 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. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuation of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050, including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the State's 1990 emissions level using more recent GWPs identified by the IPCC, from 427 MMT CO_2e to 431 MMT CO_2e.

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

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

[CAPs]) and provided more information regarding tools to support those efforts. The 2017 Scoping Plan also recognized the CEQA streamlining provisions for project-level review where a legally adequate CAP exists.

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

The most recent update to the Scoping Plan, the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan Update) was adopted by the CARB in December 2022.[29] The 2022 Scoping Plan Update builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. The 2022 Scoping Plan Update, the most comprehensive and far-reaching Scoping Plan developed to date, identifies a technologically feasible and cost-effective path to achieve carbon neutrality by 2045 while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan. The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The relatively longer path assessed in the Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts to reduce GHGs and air pollution, while identifying new clean technologies and energy. Given the focus on carbon neutrality, the Scoping Plan also includes discussion for the first time of the Natural and Working Lands (NWL) sectors as both sources of emissions and carbon sinks.

The 2022 Scoping Plan Update lays out a path to achieve targets for carbon neutrality and reduce GHG emissions by 85 percent below 1990 levels by 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands 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 $MTCO_2e$ per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 $MTCO_2e$ per year threshold are required to have their GHG emission report verified by a CARB-accredited third party.

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

Senate Bill 1383

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

Executive Order B-55-18/Assembly Bill 1279

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

Mobile Sources

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

Assembly Bill 1493

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

Senate Bill 375

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

Pursuant to California Government Code Section 65080(b)(2)(K), a sustainable communities strategy does not (1) regulate the use of land, (2) supersede the land use authority of cities and counties, or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with the sustainable community strategy. Nonetheless, SB 375

makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the State-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

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

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 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 EV 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.

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) 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.[30]

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC is responsible for ensuring that

[30] California Energy Commission. *About the California Energy Commission*. Available at: http://www.energy.ca.gov/about. Accessed April 2024.

customers have safe, reliable utility service and infrastructure at reasonable rates, regulating utility services, stimulating innovation, and promoting competitive markets.[31]

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 proposed project.

Building Energy

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

Title 24, Part 6

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

The 2022 Title 24 standards are the currently applicable building energy efficiency standards and became effective on January 1, 2023. Compliance with the 2022 Title 24 Building Energy Efficiency Standards will reduce energy use and associated GHG emissions compared to structures built in compliance with the previous 2019 Title 24 standards. The 2022 Title 24 standards focus on four key areas in newly constructed homes and businesses:[32]

- 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-family homes 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.

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

[31] California Public Utilities Commission. *California Public Utilities Commission*. Available at: https://www.cpuc.ca.gov/about-cpuc. Accessed April 2024.

[32] California Energy Commission. *Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions From Homes and Businesses.* Available at: https://www.energy.ca.gov/news/2021-08/energy-commission-adopts-updated-building-standards-improve-efficiency-reduce-0. Accessed April 2024.

11 of Title 24) is commonly referred to as the CALGreen Code, 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 mandatory standards require the following:

- 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 California DWR's 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 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.

Title 20

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, 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.

Climate Change Scoping Plan

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

Transportation / Fuel Energy

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

Assembly Bill 1493

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

Executive Order S-1-07

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

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 the sale of new 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 engine exhaust and evaporative emissions from 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 established by the EDCAQMD and El Dorado County, are discussed in further detail below.

El Dorado County Air Quality Management District

The EDCAQMD 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 NAAQS and CAAQS and reduce GHG emissions in compliance with State goals.

Air Quality Attainment Plan

El Dorado County is part of the Sacramento Federal Nonattainment Area (SFNA) for ozone, which also includes the Sacramento Metropolitan Air Quality Management District (SMAQMD), Feather River Air Quality Management District (FRAQMD), Yolo Solano Air Quality Management District (YSAQMD) and Placer County Air District (PCAPCD). As a part of the SFNA, the EDCAQMD works with the other local air districts within the Sacramento area to develop a regional air quality management plan under the FCAA requirement. The regional air quality management plan is called the SIP which describes and demonstrates how El Dorado County, as well as the SFNA, would attain the required federal ozone standard by the proposed attainment deadline. In accordance with the requirements of the FCAA, EDCAQMD, 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. On October 26, 2015, the USEPA released a final implementation rule for the revised NAAQS for ozone to address the requirements for reasonable further progress, modeling and attainment demonstrations, and reasonably available control measures (RACM) and reasonably available control technology (RACT). The USEPA published designations for areas in attainment/unclassifiable for the 2015 ozone standards. The USEPA identified portions of El Dorado County as nonattainment for the 2015 ozone standards.[33] The attainment deadline for the SFNA is July 2025.

EDCAQMD Rules and Regulations

All projects under the jurisdiction of the EDCAQMD are required to comply with all applicable EDCAQMD rules and regulations. Applicable EDCAQMD regulations and rules include, but are not limited to, the following:

- Regulation 2 (Prohibitions)
  - Rule 202 (Visible Emissions)
  - Rule 205 (Nuisance)
  - Rule 207 (Particulate Matter).
  - Rule 215 (Architectural Coatings)
  - Rule 223 (Fugitive Dust)
  - Rule 223-1 (Fugitive Dust – Construction, Bulk Material Handling, Blasting, Other Earthmoving Activities And Carryout and Trackout Prevention)
  - Rule 223-2 (Fugitive Dust – Asbestos Hazard Mitigation)
  - Rule 224 (Cutback and Emulsified Asphalt Paving Materials)
  - Rule 233 (Stationary Internal Combustion Engines)
  - Rule 239 (Natural Gas-Fired Residential Water Heaters)
- Regulation 3 (Open Burning)
  - Rule 300 (Open Burning)
- Regulation 5 (Permit to Operate Regulations)
  - Rule 502 (General Conformity Rule)

El Dorado County General Plan

The following goals, objectives, and policies related to air quality, GHG emissions, and energy are from the El Dorado County General Plan:

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

Objective 5.6.2: ENCOURAGE ENERGY-EFFICIENT DEVELOPMENT: Encourage development of energy-efficient buildings, subdivisions, development, and landscape designs.

Policy 5.6.2.1 Require energy conserving landscaping plans for all projects requiring design review or other discretionary approval.

Policy 5.6.2.2 All new subdivisions should include design components that take advantage of passive or natural summer cooling and/or winter solar access, or both, when possible.

Goal 6.7 AIR QUALITY MAINTENANCE:

A. Strive to achieve and maintain ambient air quality standards established by the U.S. Environmental Protection Agency and the California Air Resources Board.
B. Minimize public exposure to toxic or hazardous air pollutants and air pollutants that create unpleasant odors.

Objective 6.7.1 EL DORADO COUNTY CLEAN AIR PLAN: Adopt and enforce Air Quality standards to reduce the health impacts caused by harmful emissions.

Policy 6.7.1.1 Improve air quality through land use planning decisions.

Objective 6.7.2 VEHICULAR EMISSIONS: Reduce motor vehicle air pollution by developing programs aimed at minimizing congestion and reducing the number of vehicle trips made in the County and encouraging the use of clean fuels.

Policy 6.7.2.2 Encourage, both through County policy and discretionary project review, the use of staggered work schedules, flexible work hours, compressed work weeks, teleconferencing, telecommuting, and carpool/van pool matching as ways to reduce peak-hour vehicle trips.

Policy 6.7.2.5 Upon reviewing projects, the County shall support and encourage the use of, and facilities for, alternative-fuel vehicles to the extent feasible. The County shall develop language to be included in County contract procedures to give preference to contractors that utilize low-emission heavy-duty vehicles.

Policy 6.7.3.2 Transit Service – The County shall promote infill development that is compact, mixed used, pedestrian friendly, and transit oriented in areas identified as Transit Priority Project Areas.

Objective 6.7.4: PROJECT DESIGN AND MIXED USES: Encourage project design that protects air quality and minimizes direct and indirect emissions of air contaminants.

Policy 6.7.4.1 Reduce automobile dependency by permitting mixed land use patterns which locate services such as banks, childcare facilities, schools, shopping centers, and restaurants in close proximity to employment centers and residential neighborhoods.

Policy 6.7.4.2 Promote the development of new residential uses within walking or bicycling distance to the County's larger employment centers.

Policy 6.7.4.3 New development on large tracts of undeveloped land near the rail corridor shall, to the extent practical, be transit supportive with high density or intensity of use.

Policy 6.7.4.4 All discretionary development applications shall be reviewed to determine the need for pedestrian/bike paths connecting to adjacent development and to common service facilities (e.g., clustered mailboxes, bus stops, etc.).

Policy 6.7.4.6 The County shall regulate wood-burning fireplaces and stoves in all new development. Environmental Protection Agency (EPA)-approved stoves and fireplaces burning natural gas or propane are allowed. The County shall discourage the use of non-certified wood heaters and fireplaces during periods of unhealthy air quality.

Objective 6.7.7: CONSTRUCTION RELATED, SHORT-TERM EMISSIONS: Reduce construction related, short-term emissions by adopting regulations which minimize their adverse effects.

Policy 6.7.7.1	The County shall consider air quality when planning the land uses and transportation systems to accommodate expected growth, and shall use the recommendations in the most recent version of the El Dorado County Air Quality Management (AQMD) Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts Under the California Environmental Quality Act, to analyze potential air quality impacts (e.g., short-term construction, long-term operations, toxic and odor-related emissions) and to require feasible mitigation requirements for such impacts. The County shall also consider any new information or technology that becomes available prior to periodic updates of the Guide. The County shall encourage actions (e.g., use of light-colored roofs and retention of trees) to help mitigate heat island effects on air quality.

Bass Lake Hills Specific Plan

The BLHSP was adopted November 7, 1995, as a coordinated planning program consistent with the El Dorado County General Plan for the development of 1,196 acres located in eastern El Dorado County. The BLHSP does not include any goals or policies relevant to air quality, GHG emissions, or energy.

4.2.4 IMPACTS AND MITIGATION MEASURES

The standards of significance and methodology used to analyze and determine the proposed 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 Appendix G of the CEQA Guidelines, an impact related to air quality, GHG emissions, or energy is considered significant if the proposed 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 nonattainment under an applicable federal or State AAQS;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs;

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources; or
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

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. The analysis in this EIR uses the thresholds for criteria pollutants, TAC emissions, GHG emissions, and energy, as discussed below.

Criteria Pollutant Emissions

In order to evaluate criteria air pollutant emissions from development projects, the EDCAQMD has established significance thresholds for emissions of ROG and NO_x. If a project would result in mass emissions in excess of the thresholds of significance, the project could affect the EDCAQMD's commitment to attainment of the federal AAQS for ozone and, thus, could result in a significant adverse impact on air quality in the region.

Thresholds for PM_{10} or other pollutants, including CO, PM, SO_2, NO_2, sulfates, lead, and H_2S, have not yet been established by the EDCAQMD. However, a project could be considered to have a significant impact on air quality if it would cause or contribute significantly to a violation of the applicable AAQS. According to the EDCAQMD CEQA Guide, if construction-related ROG and NO_X mass emissions are determined to be less than significant, the assumption could be made that construction-related exhaust emissions of other air pollutants from the operation of equipment and worker commute vehicles would also be less than significant.[34] Similarly, according to EDCAQMD's operational screening levels for CO and PM_{10}, if a project is anticipated to be below significance for ROG and NO_X, the project's CO and PM_{10} emissions are expected to be insignificant as well.

The significance thresholds, expressed in pounds per day (lbs/day), listed in Table 4.2-6 are the EDCAQMD's current thresholds of significance for use in the evaluation of air quality impacts associated with proposed development projects. Thus, if the proposed 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.

Table 4.2-6
EDCAQMD Thresholds of Significance

Pollutant	Construction Threshold (lbs/day)	Operational Threshold (lbs/day)
ROG	82	82
NO_X	82	82

Source: EDCAQMD CEQA Guide, 2002.

With regard to cumulative emissions of criteria air pollutants, according to the EDCAQMD CEQA Air Quality Handbook, adopted EDCAQMD rules and regulations, as well as the thresholds of significance, have been developed consistent with the applicable air quality plan with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the

[34] El Dorado County Air Pollution Control District. *Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts Under the California Environmental Quality Act*. February 2002.

MCAB is currently designated as nonattainment. Projects that comply with the adopted EDCAQMD's rules and regulations and do not exceed the EDCAQMD significance thresholds may be assumed to have a less-than-significant impact in regard to a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment. As a result, the cumulative-level emissions thresholds established by EDCAQMD are assumed to be identical to the project-level emissions thresholds presented in Table 4.2-6, above.

Ascertaining cancer risk, or similar measurements of health effects from air pollutants, is very difficult for regional pollutants such as the ozone precursors ROG and NO_X. This challenge was addressed in Sierra Club v. County of Fresno (2018) 6 Cal.5th 502, 510, 517-522. In that case, the California Supreme Court held generally that an EIR should "make a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." A possible example of such a connection would be to calculate a project's "impact on the days of nonattainment per year." But the court recognized that there might be scientific limitations on an agency's ability to make the connection between air pollutant emissions and public health consequences in a credible fashion, given limitations in technical methodologies. Thus, the court acknowledged that another option for an agency preparing an EIR might be "to explain why it was not feasible to provide an analysis that connected the air quality effects to human health consequences."

Here, the EDCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of emissions in El Dorado County. At present, EDCAQMD has not provided any methodology to assist local governments in reasonably and accurately assessing the specific connection between mass emissions of ozone precursors (e.g., ROG and NO_X) and other pollutants of concern on a regional basis and any specific effects on public health or regional air quality concentrations that might result from such mass emissions.

Ozone concentrations, for instance, depend upon various complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground level ozone concentrations related to the NAAQS and CAAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds. To achieve the health-based standards established by the EPA, the air districts prepare air quality management plans that detail regional programs to attain the AAQS. However, if a project within EDCAQMD exceeds the regional significance thresholds, the proposed project could contribute to an increase in health effects in the basin until the attainment standards are met in the MCAB and SFNA.

Notably, during the litigation process that led to the California Supreme Court decision in Sierra Club v. County of Fresno, the San Joaquin Valley Air Pollution Control District (SJVAPCD) submitted an amicus curiae brief that provided scientific context and expert opinion regarding the feasibility of performing regional dispersion modeling for ozone. In the brief, SJVAPCD states that "CEQA does not require an EIR to correlate a project's air quality emissions to specific health impacts, because such an analysis is not reasonably feasible." As SJVAPCD explains:

> Attainment of a particular NAAQS occurs when the concentration of the relevant pollutant remains below a set threshold on a consistent basis throughout a particular region. For example, the San Joaquin Valley attained the 1-hour ozone NAAQS when ozone concentrations remained at or below 0.124 parts per million Valley-wide on 3 or fewer days over a 3-year period. Because the NAAQS are focused on achieving a particular

> concentration of pollution region-wide, the Air District's tools and plans for attaining the NAAQS are regional in nature.
>
> For instance, the computer models used to simulate and predict an attainment date for the ozone or particulate matter NAAQS in the San Joaquin Valley are based on regional inputs, such as regional inventories of precursor pollutants (NOx, SOx and VOCs) and the atmospheric chemistry and meteorology of the Valley. At a very basic level, the models simulate future ozone or PM levels based on predicted changes in precursor emissions Valley wide. Because the NAAQS are set levels necessary to protect human health, the closer a region is to attaining a particular NAAQS, the lower the human health impact is from that pollutant.
>
> The goal of these modeling exercises is not to determine whether the emissions generated by a particular factory or development project will affect the date that the Valley attains the NAAQS. Rather, the Air District's modeling and planning strategy is regional in nature and based on the extent to which all of the emission-generating sources in the Valley (current and future) must be controlled in order to reach attainment.
>
> Accordingly, the Air District has based its thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the [SJVAB] can accommodate without affecting the attainment date for the NAAQS. The Air District has tied its CEQA significance thresholds to the level at which stationary pollution sources must "offset" their emissions…Thus, the CEQA air quality analysis for criteria air pollutants is not really a localized, project-level impact analysis but one of regional cumulative impacts.

The brief explains that these CEQA thresholds of significance are not intended to be applied such that any localized human health impact associated with a project's regional pollutant emissions could be identified. Rather, CEQA thresholds of significance are used to determine whether a project's emissions would obstruct a region's capability of attaining the NAAQS and CAAQS according to the emissions inventory prepared in a SIP, which is then submitted and reviewed by CARB and EPA. This sentiment is corroborated in an additional brief submitted by the South Coast Air Quality Management District. Based on the expert analyses submitted by these leading air districts, the County has concluded that it is not scientifically feasible to predict in a meaningful manner how mass emissions of pollutants of regional concern (e.g., ozone precursors) from a project of the size of the proposed project could lead to specific public health consequences, changes in pollutant concentrations, or changes in the number of days for which the MCAB and SFNA will be in nonattainment for regional pollutants.

TAC Emissions

For evaluating 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. Consistent with the thresholds used for AB 2588 risk assessment procedures, the EDCAQMD 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, as presented in Table 4.2-7.

Table 4.2-7
EDCAQMD Thresholds of Significance for Health Risks

Risk Factor	Threshold
Cancer	Increased cancer risk of >10.0 cases per million persons
Non-Cancer	Increased non-cancer risk of >1.0 Hazard Index (Chronic or Acute)

Source: EDCAQMD CEQA Guide, 2002.

The foregoing cancer risk level and non-cancer hazard index are typically applied to individual stationary sources of TACs; however, the EDCAQMD does note that the cancer risk and hazard index thresholds may also be applied to activities that are non-stationary, such as diesel delivery trucks and off-road construction equipment.

GHG Emissions

The EDCAQMD has not adopted numerical thresholds of significance for GHG emissions that would apply to the project. The EDCAQMD, however, recommends that all projects subject to CEQA review be considered in the context of GHG emissions and climate change impacts, and that CEQA documents include a quantification of GHG emissions from all project sources, as well as measures to minimize and mitigate GHG emissions as feasible. The project would generate GHG emissions through short-range construction activities as well as long-range operational activities.

Considering the lack of established GHG emissions thresholds that would apply to the project, CEQA allows lead agencies to identify thresholds of significance applicable to a project that are supported by substantial evidence. Substantial evidence is defined in the CEQA statute to mean "facts, reasonable assumptions predicated on facts, and expert opinion supported by facts" (14 CCR 15384[b]).[35] Substantial evidence can be in the form of technical studies, agency staff reports or opinions, expert opinions supported by facts, and prior CEQA assessments and planning documents. Based on the County's approach for several other recent GHG analyses, the analysis included herein takes the reasonable approach of applying thresholds of another nearby air quality management district, specifically, the SMAQMD.

The 1,100 $MTCO_2e$/yr numerical threshold used by SMAQMD, as discussed below, is a screening level threshold that has been established as a universally accepted threshold throughout the State, with several other air districts, including the PCAPCD, which also has jurisdiction over a portion of the MCAB, having adopted the same 1,100 $MTCO_2e$/yr numerical threshold. SMAQMD has further included requirements to implement the best management practices (BMPs) presented below to reduce operational GHG emissions associated with new development. The SMAQMD BMPs are consistent with the Statewide CARB GHG reduction targets, including the 2045 target of carbon neutrality established by EO B-55-18 (AB 1279), by focusing on reducing GHG emissions related to natural gas and vehicle trips, which are widespread sources of GHG emissions. Therefore, while other approaches may be used in other areas of the State, and even by other development projects within the County, to reduce GHG emissions, for the reasons stated above, use of the SMAQMD GHG thresholds for the proposed project is appropriate. The SMAQMD BMPs are also consistent with guidance from other agencies, including OPR. Moreover, SMAQMD's Tier 1 and Tier 2 BMPs are similar to the direction provided in Appendix D, "Local Actions," of the 2022 Scoping Plan which identifies building decarbonization, vehicle miles traveled (VMT) reductions, and the electrification of the mobile source sector as key priority areas that local jurisdictions can target to do their "fair share" in assisting the State in meeting its long-term goal of carbon neutrality by 2045.

[35] 14 CCR 15384 provides the following discussion: "Substantial evidence" as used in the Guidelines is the same as the standard of review used by courts in reviewing agency decisions. Some cases suggest that a higher standard, the so called "fair argument standard" applies when a court is reviewing an agency's decision whether or not to prepare an EIR. Public Resources Code section 21082.2 was amended in 1993 (Chapter 1131) to provide that substantial evidence shall include "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." The statute further provides that "argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence."

Construction GHG Emissions

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

Operational GHG Emissions

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 proposed project would exceed 1,100 $MTCO_2e$/yr after implementation of the Tier 1 measures, then the project is required to implement Tier 2 measures (BMP 3). The Tier 1 and Tier 2 requirements are explained in further detail below.

Tier 1

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

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

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

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

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

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

Tier 2

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

- ***BMP 3***: Residential projects shall achieve a 15 percent reduction in VMT per resident, and office projects should achieve a 15 percent reduction in VMT per worker compared to existing average VMT per capita for the county, or for the city if a more local SB 743 target has been established. VMT reductions can be achieved by many strategies, such as:

    - Locate in an area that already has low VMT due to location, transit service, etc.;
    - Adopt CAPCOA measures;
    - Adopt measures noted in Sacramento's CAP checklist;
    - Join a Transportation Management Association;
    - Incorporate traffic calming measures;
    - Incorporate pedestrian facilities and connections to public transportation; and/or
    - Promote electric bicycle or other micro-mobility options.

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

If a project cannot incorporate any of the foregoing BMPs, other reductions or purchasing and retiring of GHG/carbon offsets can be used as an alternative method of compliance. Given that the developer demonstrates that the alternative method(s) of compliance would achieve the same reductions as those required by BMPs 1 through 3, the project can be considered to result in a less-than-significant impact related to operational GHG emissions. Additionally, while the all electric requirement in SMAQMD's BMP 1 has not been challenged and is consistent with guidance from other agencies, the Ninth Circuit recently held that the Energy Policy and Conservation Act expressly preempted an ordinance banning natural gas piping within new buildings for appliances covered by the Act unless narrow exceptions applied.[36] While that Ninth Circuit decision does not address mitigation measures or GHG emissions thresholds, a similar challenge could be brought forth in the future and a future court decision could find that all-electric mitigation requirements or GHG emissions thresholds are similarly preempted for covered appliances. The feasibility of BMP 1 also relies on the adequate availability of electricity at the time of development.

Overall, if the proposed project would not achieve the SMAQMD's Tier 1 GHG requirements (BMPs 1 and 2) and, if applicable, Tier 2 GHG requirements (BMP 3), 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 are 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 project construction and operations.

[36] *California Restaurant Association v. City of Berkeley* (9th Cir. 2023) 65 F.4th 1045, opinion modified (9th Cir. 2024) 89 F.4th 1094, rehearing and request for En banc hearing denied on January 2, 2024.

Method of Analysis

The analysis protocol and guidance provided by the EDCAQMD's CEQA Air Quality Handbook, including screening criteria and pollutant thresholds of significance, in addition to SMAQMD guidance documents, were used to analyze the proposed project's air quality and GHG emissions impacts.

Construction Emissions

The proposed project's short-term construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.22 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. Construction emissions were modeled for both the Project Development Area and the Program Study Area. It should be noted that construction of the Project Development Area and the Program Study Area is not anticipated to occur concurrently. Therefore, construction emissions associated with the two development areas were considered separately throughout this analysis.

The modeling for the Project Development Area Scenario assumed that construction would begin in April 2025 and occur over an approximately two-year period. In addition, the Project Development Area Scenario also assumed construction of the proposed off-site water, sewer, and natural gas lines, bike path, and pedestrian bridge improvements. It should be noted that by assuming concurrent construction of the off-site improvements, the modeling results presented herein represent a conservative analysis, as construction of the off-site sewer pipeline may be delayed until construction of the Program Study Area due to the option for the project applicant to use an on-site septic system in the interim.

Construction of the proposed off-site improvements was assumed to occur over approximately 24 days, beginning in April 2025. The off-site water, sewer, and natural gas lines, bike path, and pedestrian bridge improvements were estimated to disturb a total of 1.58-, 0.3-, and 0.03-acres, respectively. To account for soil cut and fill associated with the bike path, and the debris that would be removed during the placement of the utility lines, the modeling assumed that a total of approximately 3,061 cubic yards (CY) of materials would be exported and a total of approximately 1,122 CY of materials would be imported during construction of the off-site improvements.

The modeling for the Program Study Area Scenario assumed that construction would begin in April 2027 (i.e., the spring after construction of the Project Development Area would be completed) and occur over an approximately two-year period. It should be noted that the construction start date for the Program Study Area is not available at this time. However, assuming construction would occur directly after construction of the Project Development Area is completed presents a conservative analysis, as technological advancements and more stringent federal, State, and local regulations are anticipated to result in cleaner construction equipment as time progresses.

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 CalEEMod modeling results are included in Appendix D to this EIR.

Operational Emissions

The proposed project's operational emissions were estimated using CalEEMod, and were modeled for both the Project Development Area and the Program Study Area. Based on project-specific information provided by the project applicant, the proposed project is anticipated to be fully operational by 2027 for the Project Development Area Scenario and 2029 for full project buildout (i.e., buildout of both the Project Development Area and the Program Study Area). The modeling performed for the proposed project included compliance with EDCAQMD rules and regulations as well as with the California Building Energy Efficiency Standards Code, which is part of the CBSC. The proposed project's compliance with such would be verified as part of the County's building approval review process. In addition, T. Kear Transportation provided project-specific trip generation rates and VMT data, which were applied to the project modeling for both scenarios. In addition, the modeling assumed that all residential cottages would include a natural gas fireplace, as indicated by the project applicant. Finally, under both the Project Development Area Scenario and the Program Study Area Scenario, the project was assumed to exceed the Tite 24 energy standards by 10 percent, generate 20 percent of the project's energy demand through on-site renewable sources, and result in a 30 percent reduction in indoor water use and a 50 percent reduction in outdoor water use as compared to current water conservation requirements. Because the Project Development Area and the Program Study Area would be concurrently operational in the future (conservatively assumed to be the year 2029 for this analysis), operational emissions associated with the two development areas were considered collectively throughout this analysis.

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 CalEEMod modeling results are included in Appendix D to this EIR.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above. It should be noted that GHG emissions are inherently cumulative; thus, the discussion of GHG impacts is included under the Cumulative Impacts and Mitigation Measures section below.

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

It should be noted that construction activity related to implementation of the proposed project is required to comply with all EDCAQMD rules and regulations. The applicable rules and regulations would include, but would not be limited to, the following:

- Rule 202 related to visible emissions;
- Rule 215 related to architectural coatings;
- Rule 223 related to fugitive dust;
- Rule 224 related to cutback asphalt paving material, and
- Rule 300 related to open burning.

In addition, the EDCAQMD screening approach for fugitive dust (PM_{10}) emissions is based on dust suppression measures that would prevent visible emissions beyond the boundaries of the project site. If such measures are incorporated into the design of the project, then further calculation to determine PM_{10} emissions is not necessary. All construction activities that would result in the disturbance of soil occurring within El Dorado County are subject to EDCAQMD Rule 223 related to fugitive dust. Rule 223 includes requirements related to visible emissions, vehicle speed limits on unpaved roads, and cessation of certain construction activities during times of sustained, wind caused dust emissions. Compliance with the requirements of Rule 223 would ensure that measures sufficient to prevent visible emissions beyond the boundaries of the project site would be implemented. Accordingly, fugitive dust emissions are not anticipated to result in visible emissions beyond the boundaries of the project site and further calculation to determine PM_{10} emissions is not necessary.

Using CalEEMod, the maximum construction-related emissions were estimated for development of both the Proposed Development Area Scenario and the Project Study Area Scenario. Table 4.2-8 below presents the estimated construction-related emissions of ROG and NO_X associated with the proposed project in comparison with the EDCAQMD thresholds of significance as described above for both project scenarios.

Table 4.2-8
Maximum Unmitigated Construction-Related Emissions (lbs/day)

Pollutant	Project Emissions	Construction Threshold	Exceeds Threshold?
Project Development Area			
ROG	24.60	82	**NO**
NO_X	79.20	82	**NO**
Program Study Area			
ROG	36.30	82	**NO**
NO_X	28.00	82	**NO**

Source: CalEEMod, April 2024 (see Appendix D).

Project Development Area

As shown in Table 4.2-8, construction activities associated with the Project Development Area Scenario would result in emissions of ROG and NO_X below the applicable EDCAQMD thresholds of significance. Therefore, construction activities associated with development of the proposed project would not substantially

contribute to the MCAB's non-attainment status for ozone. Accordingly, construction of the proposed 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.

Project Buildout

As discussed above, construction of the Project Development Area and the Program Study Area is not anticipated to occur concurrently. Therefore, construction emissions associated with the two development areas are considered separately throughout this analysis. As discussed above, construction activities associated with the Project Development Area Scenario would result in emissions of ROG and NO_X below the applicable EDCAQMD thresholds of significance. In addition, as shown in Table 4.2-8, construction activities associated with the Program Study Area Scenario would result in emissions of ROG and NO_X below the applicable EDCAQMD thresholds of significance. Therefore, construction activities associated with full buildout of the proposed project would not substantially contribute to the MCAB's non-attainment status for ozone. Accordingly, construction of the proposed project, including future development of the Program Study Area, 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.

Conclusion

Because the proposed project would result in construction-related emissions below the EDCAQMD's thresholds of significance, the proposed project would not be considered to conflict with or obstruct the implementation of applicable air quality plans during construction. Therefore, the impact would be considered ***less than significant***.

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, even with implementation of mitigation, the impact would remain *significant and unavoidable*.

As discussed above, due to the nonattainment designations of the area, the EDCAQMD has developed plans to attain the State and federal standards for ozone. The currently applicable air quality plan is the Ozone Attainment Plan. Adopted EDCAQMD 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 EDCAQMD's mass emission thresholds, a project would be considered to conflict with or obstruct implementation of the EDCAQMD's air quality planning efforts.

Emissions of ROG and NO_X would be generated during operations of the proposed project from both mobile and stationary sources. Emissions related to operation of the proposed 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.). The most significant source of emissions related to the proposed 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 proposed project, the project-specific trip generation rates and VMT estimates prepared by T. Kear Transportation were applied to the project modeling.

The maximum unmitigated operational emissions for both the Project Development Area and Project Buildout are presented in Table 4.2-9, below.

Project Development Area

As shown in Table 4.2-9, operation of the proposed project under the Project Development Area Scenario would result in emissions of ROG and NO_X below the EDCAQMD thresholds of significance. Therefore, operation of the Project Development Area would not substantially contribute to the MCAB's non-attainment status for ozone, nor 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 project operations.

Table 4.2-9
Maximum Unmitigated Project Operational Emissions (lbs/day)

Pollutant	Project Emissions	Operational Threshold	Exceeds Threshold?
Project Development Area			
ROG	17.90	82	**NO**
NO_X	8.86	82	**NO**
Program Study Area			
ROG	76.90	82	**NO**
NO_X	33.10	82	**NO**
Project Buildout			
ROG	94.80	82	**YES**
NO_X	41.96	82	**NO**

Source: CalEEMod, April 2024 (see Appendix D).

Project Buildout

As shown in Table 4.2-9, when considered separately, the Project Development Area and Program Study Area would result in ROG and NO_X emissions below the EDCAQMD thresholds of significance. However, as discussed above, because the Project Development Area and the Program Study Area would be concurrently operational in the future (conservatively assumed to be the year 2029 for this analysis), operational emissions associated with the two development areas were considered collectively. As shown in Table 4.2-9, Project Buildout (i.e., operation of the Project Development Area and the Program Study Area) would result in NO_X emissions below the applicable EDCAQMD threshold of significance. However, emissions of ROG would exceed the applicable EDCAQMD threshold of significance. Therefore, when considering concurrent operation of the Project Development Area and Program Study Area, the proposed project could substantially contribute to the MCAB's non-attainment status for ozone. Accordingly, operational emissions associated with full

buildout of the proposed project could violate an air quality standard or contribute to an existing or projected air quality violation, and a potentially significant impact could occur associated with project operations.

Conclusion

As shown in Table 4.2-9, when considered separately, the Project Development Area and Program Study Area would result in ROG and NO_X emissions below the EDCAQMD thresholds of significance. However, full buildout of the proposed project, when considering concurrent operation of the Project Development Area and Program Study Area, would result in ROG emissions above the applicable EDCAQMD thresholds of significance. As such, the proposed project could create a conflict with or obstruct implementation of the applicable air quality plan, and a ***significant*** impact would result.

Mitigation Measure(s)

Implementation of Mitigation Measure 4.2-2(a) would help to reduce operational ROG emissions from full Project Buildout. However, because the proposed project does not currently include any specific development plans, designs, or proposals for the Program Study Area, the determination as to which specific measures included in Mitigation Measure 4.2-2(a) are feasible for development of the Program Study Area, and their relative effectiveness, cannot be conclusively determined at this time.

In addition, the majority of the operational ROG emissions associated with Project Buildout are associated with mobile sources (52.1 lbs/day). Implementation of Mitigation Measure 4.11-3 as set forth in the Transportation chapter of this EIR, which requires implementation of California Air Pollution Officers Association (CAPCOA) measures to reduce the number of vehicle trips that would be generated by the residential component of the Program Study Area, would further reduce the proposed project's operational ROG emissions. However, as discussed therein, the CAPCOA measures ultimately rely upon an alternative transportation mode, such as transit, being available. Because alternative modes are not available for the residential portion of the Program Study Area, the measures should only be implemented as practicable, to the satisfaction of the County Engineer. Thus, the effectiveness of the CAPCOA measures set forth within Mitigation Measure 4.11-3 cannot be quantified at this time and subsequent vehicle trip reduction effects cannot be guaranteed.

Possible additional mitigation measures for further reducing emissions of operational ROG associated with Project Buildout could include limitations on consumer products at the site (e.g., amounts, types, etc.); however, such mitigation cannot be feasibly enforced or verified. The sale, manufacturing, substance control, and content limitation (such as volatile organic compound [VOC] limits) of consumer products are regulated by federal, State, and/or local government agencies. The EDCAQMD is charged with local enforcement of regulations regarding consumer products that are associated with effects on air quality. The EDCAQMD is also charged with developing measures to offset potential effects on regional air quality through their planning efforts. For example, the regional Ozone Attainment Plan includes existing and new control strategies intended to provide the necessary future emission reductions to meet the ozone NAAQS. Because the proposed project has not been anticipated by the County's General Plan, the associated emissions have not been anticipated in the

regional air quality plans. As such, any future updates to the air quality plans would have to take into account the emissions associated with buildout of the proposed project (if approved) and include additional strategies to offset the overall regional emissions of ozone, including ROG emissions, through local and/or regional programs.

Overall, because the feasibility and the relative effectiveness of the aforementioned measures cannot be conclusively determined at this time, and additional feasible mitigation sufficient to reduce the proposed project's operational ROG emissions to below the EDCAQMD's thresholds of significance is not currently available, even with implementation of the following mitigation measures, the above impact would remain *significant and unavoidable*.

Program Study Area

4.2-2(a) *At the time of application submittal for development of the Program Study Area, the project applicant shall retain a qualified air quality consultant to conduct an analysis to quantify the project's operational ROG emissions. If ROG emissions are determined to be less than or equal to 64.1 lbs/day (i.e., 76.90 lbs/day presented in Table 4.2-9 minus the 12.8 lbs/day required for the project to be below the applicable EDCAQMD threshold of significance), further mitigation is not required.*

If ROG emissions are determined to exceed 64.1 lbs/day, the qualified air quality consultant shall identify measures to reduce the project's operational ROG emissions to below 64.1 lbs/day, or to the maximum extent feasible, as determined by the County. Emission reduction measures may include, but are not limited to, the following:

- *Prohibit natural gas on-site;*
- *Install rooftop solar;*
- *Use no VOC paints for architectural coatings;*
- *Install on-site EV charging equipment beyond the CalGreen Code requirements;*
- *Design internal roadways to maximize pedestrian and bicycle access; and*
- *Include 100-volt electrical receptacles on the exterior of buildings for purposes of charging or powering electric landscaping equipment.*

Quantified emissions and identified reduction measures shall be submitted to EDCAQMD and the El Dorado County Planning and Building Department for review and approval.

4.2-2(b) *Implement Mitigation Measure 4.11-3.*

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

The major pollutant concentrations of concern are localized CO emissions, TAC emissions, and criteria pollutant emissions, which are addressed below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Traffic congestion near a roadway's intersection with vehicles moving slowly or idling could result in localized CO emissions at that intersection due to a vehicle engine's inefficient combustion. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Accordingly, a land use project could result in impacts associated with localized CO concentrations at roadway intersections if the project generates substantial traffic.

The MCAB has been in attainment for CO for multiple years. Due to the continued attainment of CAAQS and NAAQS, and advances in vehicle emissions technologies, the likelihood that any single project would create a CO hotspot is minimal. Similarly, the nearby air district, SMAQMD, notes that for air basins that are in attainment, emissions of CO are generally of less concern than other criteria pollutants, as operational activities are not likely to generate substantial quantities of CO.[37]

Nonetheless, the PCAPCD, a nearby air district who has authority over a portion of the MCAB, has a screening level threshold for localized CO impacts. According to the PCAPCD screening levels, a project could result in a significant impact if the project would result in CO emissions from vehicle operations in excess of 550 lbs/day.

The maximum unmitigated operational emissions for both the Project Development Area and Project Buildout are presented in Table 4.2-10 below.

Table 4.2-10
Maximum Unmitigated Emissions of CO

Project Phase	CO Emissions (lbs/day)
Project Development Area	34.90
Program Study Area	231.00
Total (Project Buildout)	*265.90*

Source: CalEEMod, April 2024 (see Appendix D).

Project Development Area

As shown in Table 4.2-10, CO emissions associated with the Project Development Area would be below the PCAPCD's 550 lbs/day screening level. Therefore, based on the nearby PCAPCD's screening level for localized CO impacts, the proposed project would not be expected to result in substantial localized CO concentrations, and, thus, the proposed project would not be considered to expose sensitive receptors to substantial concentrations of localized CO.

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

Project Buildout

Similar to the above, as shown in Table 4.2-10, CO emissions associated with Project Buildout would be below the PCAPCD's 550 lbs/day screening level. Therefore, based on the nearby PCAPCD's screening level for localized CO impacts, full buildout of the proposed project would not be expected to result in substantial localized CO concentrations, and, thus, the proposed project would not be considered to expose sensitive receptors to substantial concentrations of localized CO.

TAC Emissions

As stated above, if a project would introduce a new source of TACs, a detailed health risk assessment may be required. The EDCAQMD 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.

The nearest sensitive receptors to the project site are rural residences located to the northeast and west of the project site, with the nearest residence located approximately 500 feet from the site's western boundary, across Bass Lake Road. Thus, activities related to the construction and operation of the Project Development Area and Project Buildout are analyzed to determine whether the proposed project would expose nearby sensitive receptors to TAC emissions.

Project Development Area

The following includes a discussion of impacts regarding construction- related TAC emissions and operational TAC emissions, and NOA associated with the Project Development Area.

Construction TAC Emissions

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 from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

Construction-related activities have the potential to generate concentrations of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. The construction period would be temporary and would occur over a relatively short duration in comparison to the operational lifetime of the proposed 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 buildout of the Project Development Area were estimated to occur over an approximately two-year period. Only portions of the site would be disturbed at a time throughout the construction period, with operation of construction equipment occurring intermittently throughout the course of a day rather than continuously at any one location on the project site.

All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation includes emissions reducing requirements such as limitations on vehicle idling, disclosure, reporting, and labeling requirements for existing vehicles, as well as standards relating to fleet average emissions and the use of Best Available Control Technologies. As discussed above, under Impact 4.2-1, construction activity related to implementation of the proposed project would be subject to all applicable EDCAQMD rules and regulations, including, but not limited to, Rule 202 related to visible emissions, Rule 223 related to fugitive dust, and Rule 224 related to cutback asphalt paving material. Thus, on-site emissions of PM would be reduced, which would result in a proportional reduction in DPM emissions and exposure of nearby residences to DPM.

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, the highly dispersive nature of DPM, and compliance with regulations, the likelihood that any one nearby sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low.

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

Naturally Occurring Asbestos

As stated previously, NOA is typically associated with fault zones, and areas containing serpentinite or contacts between serpentinite and other types of rocks. According to the CGS El Dorado County Naturally Occurring Asbestos Review Map, the majority of the project site is not in a NOA review zone; however, the southeast corner of the site has been identified as being located within a quarter-mile buffer for areas more likely to contain asbestos (see Figure 4.2-1),[38] which is considered an El Dorado County review area for NOA. As shown in Figure 4.2-1, while the majority of the on-site El Dorado County review area for NOA is located within the Program Study Area, a small portion of the Project Development Area is within the El Dorado County review area for NOA. Therefore, the potential exists for construction workers or nearby sensitive receptors to be exposed to asbestos if rocks within the Project Development Area contain asbestos, as grading and construction activities could release asbestos fibers into the environment if not properly controlled.

The CARB Asbestos ATCMs for Construction, Grading, Quarrying, and Surface Mining Operations (17 CCR 93105), was developed to prevent hazardous situations resulting from earth disturbance in areas containing NOA. For projects that could create a hazardous situation through disturbance of

[38] El Dorado County. *Asbestos Review Areas, Western Slope, County of El Dorado, State of California*. August 24, 2018. Available at: https://www.edcgov.us/Government/AirQualityManagement/Pages/asbestos_maps.aspx. Accessed April 2024.

asbestos-containing rocks, the ATCM requires an Asbestos Dust Mitigation Plan, which is subject to review and approval by the EDCAQMD, as well as implementation of dust control practices in areas where asbestos is found or likely to be found. EDCAQMD Rule 223-2 (Fugitive Dust – Asbestos Hazard Mitigation) sets forth requirements necessary to comply with the Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations.

Compliance with the CARB Asbestos ATCMs for Construction, Grading, Quarrying, and Surface Mining Operations, as well as EDCAQMD Rule 223-2 would minimize the potential for construction workers or nearby sensitive receptors to be exposed to asbestos during construction activities. However, because the presence or absence of naturally occurring asbestos has not been confirmed on-site, proper compliance with the aforementioned regulations cannot be ensured at this time. Therefore, the proposed project could expose sensitive receptors to substantial pollutant concentrations related to NOA.

Operational TAC Emissions

As discussed previously, the CARB 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 Project Development Area would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations related to TAC emissions during operations.

Project Buildout

The following includes a discussion of impacts regarding construction-related TAC emissions and operational TAC emissions, and NOA associated with Project Buildout.

Construction TAC Emissions

Similar to the above, the construction period associated with Project Buildout would be temporary and would occur over a relatively short duration in comparison to the operational lifetime of the proposed 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 Project Buildout were estimated to occur over an approximately four-year period (two years associated with the Project Development Area and two years associated with the Program Study Area). 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 project site.

Additionally, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation and would be subject to all applicable EDCAQMD rules and regulations. Furthermore, as discussed above, construction-related emissions associated with Project Buildout would be below the applicable mass emissions thresholds of

significance for PM_{10}, which includes DPM and fugitive dust related to construction.

Considering the above, the proposed project would not expose sensitive receptors to substantial concentrations of DPM during construction.

Naturally Occurring Asbestos

As stated above, the southeast corner of the site has been identified as being within an El Dorado County review area for NOA (see Figure 4.2-1).[39] Therefore, the potential exists for construction workers or nearby sensitive receptors to be exposed to asbestos if rocks within the project site contain asbestos, as grading and construction activities could release asbestos fibers into the environment if not properly controlled. However, similar to the Project Development Area discussion above, construction activities associated with Project Buildout would be subject to the requirements of the CARB Asbestos ATCMs for Construction, Grading, Quarrying, and Surface Mining Operations (17 CCR 93105), including preparation of an Asbestos Dust Mitigation Plan, and compliance with the requirements of EDCAQMD Rule 223-2 (Fugitive Dust – Asbestos Hazard Mitigation). However, similar to the above proper compliance with the aforementioned regulations cannot be ensured at this time. Therefore, Project Buildout could expose sensitive receptors to substantial pollutant concentrations related to NOA.

Operational TAC Emissions

As discussed above, the CARB 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. Project Buildout would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations related to TAC emissions during operations.

Criteria Pollutants

As discussed in the Existing Environmental Setting section and summarized in Table 4.2-1, criteria pollutant emissions can cause negative health effects. With regard to the proposed project, the principal criteria pollutants of concern are localized CO, ozone, and PM. As discussed above, the proposed project is not anticipated to result in impacts related to localized exposure of sensitive receptors to substantial concentrations of CO. Unlike CO and many TACs, due to atmospheric chemistry and dynamics, ozone and atmospheric PM typically act to impact public health on a cumulative and regional level, rather than a localized level. Due to the cumulative and regional nature of effects from criteria pollutants, the analysis of potential health effects of criteria pollutants is further discussed in Impact 4.2-6.

[39] El Dorado County. *Asbestos Review Areas, Western Slope, County of El Dorado, State of California*. August 24, 2018. Available at: https://www.edcgov.us/Government/AirQualityManagement/Pages/asbestos_maps.aspx. Accessed April 2024.

Conclusion

Based on the above analysis, the proposed project would not be anticipated to result in the production of substantial concentrations of localized CO or TACs. However, NOA has the potential to be present on the project site. As a result, the proposed project could result in the exposure of sensitive receptors to substantial pollutant concentrations related to NOA, and 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.

Project Development Area and Project Buildout

4.2-3 Prior to the approval of improvement plans, a qualified geologist or geotechnical engineer shall be retained to conduct additional geologic evaluations of the portion of the site located within an El Dorado County review area for NOA to determine the presence or absence of naturally occurring asbestos. In the event that naturally occurring asbestos is located on-site, an Asbestos Dust Mitigation Plan shall be prepared and submitted to the EDCAQMD and the El Dorado County Planning and Building Department for review and approval. The Asbestos Dust Mitigation Plan shall comply with the El Dorado County Code Section 8.44.030(B), which provides performance standards for ensuring that adverse impacts do not result from asbestos dust during construction. The plan shall address compliance with EDCAQMD Rule 223-2, Fugitive Dust – Asbestos Hazard Mitigation, and the CARB's Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations.

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

Emissions of pollutants have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading to odors, visible emissions (including 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 visible emissions (dust).

Odors

The following includes a discussion of odor impacts associated with the Project Development Area and Project Buildout.

Project Development Area

Emissions such as those leading to odor have the potential to adversely affect people. 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 limited. Certain land uses such as wastewater treatment facilities, landfills, confined animal

facilities, composting operations, food manufacturing plants, refineries, and chemical plants have the potential to generate considerable odors. The Project Development Area would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses.

Diesel fumes from construction equipment and heavy-duty trucks could be found to be objectionable; however, operation of construction equipment would be regulated by EDCAQMD rules and regulations, restricted to daylight hours per the El Dorado County Code Section 130.37.020(I), and would occur intermittently throughout the course of a day. All construction equipment and operation thereof would be regulated in accordance with the statewide In-Use Off-Road Diesel Vehicle Regulation. In addition, construction is temporary and construction equipment would operate intermittently throughout the course of a day and would only occur over portions of the Project Development Area at a time. For the aforementioned reasons, the project would not result in any noticeable objectionable odors associated with construction.

Operations of the proposed restaurants within the event center/museum would have the potential to result in emissions of odors related to food preparation and disposal. However, the design of the commercial cooking area would be required to comply with all State and local regulations associated with cooking equipment and controls, such as grease filtration and removal systems, exhaust hood systems, and blowers to move air into the hood systems and through air cleaning equipment. Such equipment would ensure that pollutants or odors associated with smoke and exhaust from cooking surfaces would be captured and filtered, allowing only filtered air to be released into the atmosphere. The disposal of solid waste, including putrescible waste, such as food waste, is regulated under Chapter 8.42 of El Dorado County's Code. Chapter 8.42 prohibits waste storage practices that would create unpleasant odors, and requires putrescible waste to be kept within proper designed and maintained containers that include lids to control odiferous emissions. Installation of cooking area ventilation and exhaust, as well as storage of food waste in compliance with Chapter 8.42 of El Dorado County's Code, would reduce the potential for the proposed project to result in the emission of substantial odiferous emissions.

EDCAQMD Rule 205, Nuisance, addresses the exposure of "nuisance or annoyance" air contaminant discharges, including odors, and provides enforcement of odor control. Rule 205 is complaint-based, where if public complaints are sufficient to cause the odor source to be considered a public nuisance, then the EDCAQMD 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 proposed project, the EDCAQMD would be required (per EDCAQMD Rule 205) to ensure that such complaints are addressed and mitigated, as necessary.

Project Buildout

Similar to the Project Development Area, as discussed above, the proposed uses associated with Project Buildout would not introduce land uses with the potential to generate considerable odors, and would not be located in the vicinity of any such existing or planned land uses. Similarly, construction equipment associated with

Project Buildout would be regulated by EDCAQMD rules and regulations and the statewide In-Use Off-Road Diesel Vehicle Regulation, restricted to daylight hours per the El Dorado County Code Section 130.37.020(I), and would occur intermittently throughout the course of a day. Furthermore, in the event that additional restaurants are proposed within the Program Study Area, such uses would be subject to the same State and local regulations associated with cooking equipment and controls discussed above, as well as the solid waste disposal requirements included in Chapter 8.42 of El Dorado County's Code. Finally, although not anticipated, if odor or air quality complaints are made under Project Buildout Conditions, the EDCAQMD would be required (per EDCAQMD Rule 205) to ensure that such complaints are addressed and mitigated, as necessary. Thus, Project Buildout would not result in any noticeable objectionable odors associated with construction or operations.

Visible Emissions (Dust)

The following includes a discussion of dust impacts associated with the Project Development Area and Project Buildout.

Project Development Area and Project Buildout

With regard to dust, as noted previously, construction of projects within El Dorado County are required to comply with all applicable EDCAQMD rules and regulations. The aforementioned rules would act to reduce construction-related dust by implementing dust control measures. EDCAQMD Rule 223 includes requirements to reduce fugitive dust emissions, such as limiting vehicle speed limits on construction sites and unpaved roads, reducing dust track-out, and use of water for soil stabilization when warranted. Compliance with Rule 223 would ensure that measures sufficient to prevent emissions of fugitive dust beyond the boundaries of the project site would be implemented. Following construction, vehicles operating within the project site would be limited to paved areas of the site, and non-paved areas would be landscaped. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

Considering the above, construction and operations of the Project Development Area and Project Buildout would not result in the creation of substantial emissions of dust.

Conclusion

For the aforementioned reasons, project construction and operations would not result in emissions of other pollutants (such as those leading to odors) that could adversely affect a substantial number of people. Accordingly, implementation of the proposed project would result in a ***less-than-significant*** impact.

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 applies to the potential for the Project Development Area and Project Buildout to result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.

Project Development Area

The Project Development Area would be developed with a variety of residential and recreational (i.e., hotel, event center, museum, and restaurant) uses. Energy use associated with operation of the Project Development Area would be typical of such uses, requiring electricity for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC) systems, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the development of the Project Development Area would result in transportation energy use associated with vehicle trips generated by residents, visitors, and employees travelling to and from the project site. Energy use associated with construction of the Project Development Area, as well as building energy use and transportation energy use are discussed separately below.

Construction Energy Use

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

Typically, at construction sites, electricity from the existing grid is used to power portable and temporary lights or office trailers. Because grid electricity would be used primarily for steady sources such as lighting, not sudden, intermittent sources such as welding or other hand-held tools, the increase in electricity usage at the site during construction would not be expected to cause any substantial peaks in demand. Construction of the Project Development Area, which would result in temporary increases in electricity demand, would not cause a permanent or substantial increase in demand that would exceed PG&E's demand projections or exceed the ability of PG&E's existing infrastructure to handle such an increase. Therefore, construction of the Project Development Area 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 Project Development Area would be disturbed at a time, with operation of construction equipment occurring at different locations on the Project Development Area, rather than a single location. In addition, all construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to

reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing a five-minute limit on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. Furthermore, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. Engine tiers are used to describe the emissions intensity and efficiency of an engine. Construction equipment with Tier 0 or Tier 1 engines are the least efficient, and Tier 4 is the most efficient. In November 2021, the CARB began developing standards for Tier 5 engines. As of 2015, vehicles with Tier 0 and Tier 1 engines are prohibited from being added to equipment fleets. Fleets with a total horsepower over 2,501, excluding non-profit training centers, may not add any Tier 2 engines and, starting January 1, 2024, all newly added engines must be Tier 4 final or higher.[40] The In-Use Off-Road Diesel Vehicle Regulation would, therefore, help to improve fuel efficiency for equipment used in construction of the Project Development Area.

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 Best Available Control Technology (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.[41] Construction activities associated with the Project Development Area would be required to comply with such regulations, which would ensure that construction equipment meets all State efficiency requirements.

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

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

41 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 Development Area would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the Project Development Area construction activities 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

Development associated with the Project Development Area is required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the CBSC and CARB standards, which would ensure that the future uses would be designed to be energy efficient to the maximum extent practicable. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed development within the Project Development Area 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, the 2022 CBSC has begun phasing in the provision of zero net energy by requiring residential projects to meet the annual electricity usage of the building through an on-site solar system. The 2022 Building Energy Efficiency Standards also requires that newly constructed 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, be developed to include a solar PV system. Therefore, a portion of the electricity demand associated with development of the Project Development Area would be met by on-site renewable energy. Furthermore, 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 PG&E, to procure an increasing proportion of electricity from renewable sources. Ultimately the RPS requirements mandate that all electricity produced within the State be renewably sourced by the year 2045.

Based on the air quality modeling prepared for the Project Development Area, the Project Development Area is anticipated to result in increased electricity consumption of approximately 1.53 GWh annually during operations. It is noted that, compared to the electricity consumption for all of El Dorado County, the Project Development Area's contribution would represent a 0.1 percent increase in electricity demand. Although the Project Development Area would increase electricity demand in the project area, the increased demand is not anticipated to conflict with the PG&E's ability to meet the RPS requirements, or exceed the PG&E's capacity such that the Project Development Area's energy demands would not be met.

Increased energy does not necessarily mean that a project would have an impact related to energy resources. Based on Appendix F of the CEQA Guidelines, a project would result in an impact related to energy resources if a project would result in the inefficient use or waste of energy. As stated above, the Project Development Area would be required to comply with the efficiency standards set forth in the CBSC, CALGreen Code, Building Energy Efficiency Standards, and by CARB, and the

proposed project would not conflict or obstruct with any State or local plans related to renewable energy.

With regard to landscaping and maintenance equipment, AB 1346 requires that all small off-road engines sold after January 1, 2024 are all-electric. As such, this means by the time the Project Development Area is operational, a reasonable assumption can be made that at least a portion of the small equipment that would be used on-site would be electric. Given that electricity from PG&E is partially generated from renewable sources, 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 24.8 miles per gallon (mpg) in 2022, the most recent year such data is available.[42] In addition, petroleum refineries in the U.S. typically produce approximately 20 gallons of gasoline from one 42-gallon barrel of crude oil. Using an average of 24.8 mpg and an annual VMT of approximately 2,367,025 for the Project Development Area, the Project Development Area is estimated to result in the consumption of approximately 4,772 barrels of petroleum a year related to gasoline. California is estimated to consume approximately 605 million barrels of petroleum per year.[43] Based on the annual consumption within the State, vehicle trips generated by the Project Development Area would result in a 0.0008 percent increase in the State's current consumption of gasoline.

The calculation above is likely an overestimate, as the estimate does not account for the increasing ownership of EVs. California leads the nation in registered alternatively-fueled and hybrid vehicles. In fact, under SB 500, the State has required that, starting in the year 2030, all cars sold shall be zero-emission/EVs. 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. Based on the above, the actual consumption of gasoline associated with the Project Development Area is anticipated to be even lower than the 0.0008 percent statewide contribution noted above.

The Project Development Area would be required to comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, buildout of the Project Development Area would involve the provision of sidewalks throughout the development area, as well as on- and off-site bicycle path and pedestrian trail improvements and the construction of a bicycle/pedestrian bridge to allow for passive recreation, such as walking, jogging, and bicycling. The aforementioned improvements would provide pedestrian and bicycle connectivity within the project site, thereby

[42] U.S. Energy Information Administration. *Total Energy, Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy*. Accessible at: https://www.eia.gov/totalenergy/data/browser/?tbl=T01.08#/?f=A&start=200001. Accessed March 2024.

[43] U.S. Energy Information Administration. *California: State Profile and Energy Estimates*. Accessible at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA. Accessed March 2024.

helping to discourage driving and reduce vehicle trips and associated transportation energy demand.

Project Buildout

Project Buildout would include the development of a variety of residential, recreational (i.e., hotel, event center, museum, and restaurant), and commercial uses. Energy use associated with operation of the proposed project under Project Buildout conditions would be similar to energy use typical of the uses described in the Project Development Area discussion above, requiring electricity for interior and exterior building lighting, HVAC systems, electronic equipment, machinery, refrigeration, and transportation energy use associated with vehicle trips generated by residents, visitors, and employees travelling to and from the project site. Energy use associated with construction of the proposed project under Project Buildout conditions, as well as building energy use and transportation energy use are discussed separately below.

Construction Energy Use

Construction of the proposed project under Project Buildout conditions would involve increased energy demand and consumption similar to the Project Development Area, and would be regulated pursuant to the requirements and standards described above, including the CARB's In-Use Off-Road Diesel Vehicle Regulation, engine tier requirements, DOORS Reporting System, VDECS or BACT requirements, as well as all other State efficiency requirements and EDCAQMD rules and regulations.

In addition, as discussed above, 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 future construction of the Program Study Area. Over time, as technology progresses and more stringent emissions standards are put in place, construction equipment engines become increasingly efficient. As such, regulations pertaining to energy use, including, but not limited to, State and federal vehicle standards, have been getting progressively more stringent over time. Thus, as future construction occurs within the Program Study Area under the increasingly stringent regulations, the energy use associated with such construction activities is anticipated to be increasingly energy efficient over time as well.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project under Project Buildout conditions would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, construction activities associated with Project Buildout 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

Similar to the Project Development Area, development associated with Project Buildout would be required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the CBSC, CALGreen Code, Building Energy Efficiency Standards, and CARB standards, which would

ensure that the future uses would be designed to be energy efficient to the maximum extent practicable.

Based on the air quality modeling prepared for the Project Development Area and the Program Study Area, at Project Buildout, the proposed project is anticipated to result in increased electricity consumption of approximately 4.63 GWh annually during operations. It is noted that, compared to the electricity consumption for all of El Dorado County, the Project Buildout's contribution would represent a 0.37 percent increase in electricity demand. Although the proposed project would increase electricity demand in the project area, the increased demand is not anticipated to conflict with the PG&E's ability to meet the RPS requirements, or exceed the PG&E's capacity such that the project's energy demands would not be met. In addition, it should be noted that energy efficiency regulations have been getting progressively more stringent over time. Thus, as future development occurs within the Program Study Area under the increasingly stringent regulations, the energy use associated with such development is anticipated to be increasingly energy efficient over time as well.

Transportation Energy Demand

As discussed above, the average fuel economy for the U.S. passenger vehicle fleet was 24.8 mpg in 2022, the most recent year such data is available.[44] 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 24.8 mpg and an annual VMT of approximately 21,508,355 for Project Buildout, the proposed project is estimated to result in the consumption of approximately 43,364 barrels of petroleum a year related to gasoline. California is estimated to consume approximately 605 million barrels of petroleum per year.[45] Based on the annual consumption within the State, vehicle trips generated by the Project Buildout would result in a 0.007 percent increase in the State's current consumption of gasoline. However, as discussed above, the calculation above is likely an overestimate, as the estimate does not account for the increasing ownership of EVs and EV regulations such as SB 500 and the 2022 CBSC EV charging requirements. Therefore, the actual consumption of gasoline associated with the proposed project at full buildout is anticipated to be even lower than the 0.007 percent statewide contribution noted above. In addition, as noted above, the proposed project would involve the provision of several bicycle and pedestrian facility improvements, which would help to discourage driving and reduce vehicle trips and associated transportation energy demand. Furthermore, as discussed above, regulations pertaining to energy use, including, but not limited to, State and federal vehicle standards, have been getting progressively more stringent over time. Thus, as future development occurs within the Program Study Area under the increasingly stringent regulations, the transportation energy use associated with such development is anticipated to be increasingly energy efficient over time as well.

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44 U.S. Energy Information Administration. *Total Energy, Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy*. Accessible at: https://www.eia.gov/totalenergy/data/browser/?tbl=T01.08#/?f=A&start=200001. Accessed March 2024.

45 U.S. Energy Information Administration. *California: State Profile and Energy Estimates*. Accessible at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA. Accessed March 2024.

Conclusion

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

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

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

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 analysis includes El Dorado County and surrounding areas within the portions of the MCAB and SFNA that are designated nonattainment for ozone and PM.

As discussed previously, climate change occurs on a global scale, and emissions of GHGs, even from a single project, contribute to the global impact. However, due to the existing regulations within the State, for the purposes of this analysis, the geographic context for the analysis of GHG emissions presented in this EIR is the State of California.

Finally, a project's impacts related to energy use may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The following discussion of energy impacts is based on the implementation of the proposed project in combination with buildout of the adopted El Dorado County General Plan, as well as a list of reasonably foreseeable projects not included in the General Plan growth projections. Additional detail regarding the cumulative project setting can be found in Chapter 5, Statutorily Required Sections, of 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, and with the implementation of mitigation, the project's incremental contribution to this significant cumulative impact is *cumulatively considerable and significant and unavoidable*.

Buildout of the proposed project would lead to the release of emissions that would contribute to the cumulative regional air quality setting. The following section includes a discussion of the proposed project's contribution to the cumulative operational

emissions associated with implementation of the project, including the Project Development Area and Project Buildout, and the cumulative health effects of exposure to criteria pollutants. It should be noted that because construction would occur over a relatively short time period as compared to the operational lifetime of the proposed project, construction emissions are not considered to be cumulative in nature.

Cumulative Operational Emissions

The following includes a cumulative discussion of impacts regarding operational criteria pollutant emissions associated with the Project Development Area and Project Buildout.

Project Development Area

The proposed project is within a nonattainment area for ozone and PM. By nature, air pollution is largely a cumulative impact. The population growth and vehicle usage within the nonattainment area from the proposed project, in combination with other past, present, and reasonably foreseeable projects within El Dorado County 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, according to the EDCAQMD CEQA Air Quality Handbook, adopted EDCAQMD rules and regulations, as well as the thresholds of significance, have been developed consistent with the applicable air quality plan with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the MCAB is currently designated as nonattainment. Projects that comply with the adopted EDCAQMD's rules and regulations and do not exceed the EDCAQMD significance thresholds may be assumed to have a less-than-significant impact in regard to a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment. As a result, the cumulative-level emissions thresholds established by EDCAQMD are assumed to be identical to the project-level emissions thresholds presented in Table 4.2-6. Accordingly, if the proposed project would result in an increase of ROG or NO_X in excess of EDCAQMD's operational phase cumulative-level emissions threshold, which are identical to EDCAQMD's project-level operational emissions thresholds, the project could potentially result in a significant incremental contribution towards cumulative air quality impacts.

As discussed in Impact 4.2-2, operation of the Project Development Area would not result in emissions that exceed the EDCAQMD's thresholds of significance. Consequently, implementation of the Project Development Area is not anticipated to conflict with the EDCAQMD's adopted attainment plans nor inhibit attainment of regional AAQS.

Project Buildout

As discussed above, if the proposed project would result in an increase of ROG or NO_X in excess of EDCAQMD's operational phase cumulative-level emissions threshold, which are identical to EDCAQMD's project-level operational emissions

thresholds, the project could potentially result in a significant incremental contribution towards cumulative air quality impacts.

As discussed in Impact 4.2-2, even with implementation of Mitigation Measures 4.2-2(a) and 4.2-2(b), Project Buildout could result in emissions that exceed the EDCAQMD's thresholds of significance during operations. Consequently, implementation of the proposed project could conflict with the EDCAQMD's adopted attainment plans or inhibit attainment of regional AAQS.

Cumulative Health Effects of Criteria Pollutants

The following includes a discussion of impacts regarding cumulative health effects associated with the operational criteria pollutant emissions generated by the Project Development Area and Project Buildout.

Project Development Area

The AAQS presented in Table 4.2-2 are health-based standards designed to ensure safe levels of criteria pollutants that avoid specific adverse health effects. Because the El Dorado County portion of the MCAB is designated as nonattainment for State and federal ozone, State PM_{10}, and federal $PM_{2.5}$ standards, the EDCAQMD, along with other air districts in the MCAB and the SFNA region, has adopted federal and state attainment plans to demonstrate progress towards attainment of the AAQS. Full implementation of the attainment plans would ensure that the AAQS are attained and sensitive receptors within the MCAB and SFNA are not exposed to excess concentrations of criteria pollutants. The EDCAQMD's thresholds of significance were established with consideration given to the health-based air quality standards established by the AAQS, and are designed to aid the district in implementing the applicable attainment plans to achieve attainment of the AAQS. Thus, if a project's criteria pollutant emissions exceed the EDCAQMD's mass emission thresholds of significance, a project would be considered to conflict with or obstruct implementation of the EDCAQMD's air quality planning efforts, thereby delaying attainment of the AAQS. Because the AAQSs are representative of safe levels that avoid specific adverse health effects, a project's hinderance of attainment of the AAQS could be considered to contribute towards regional health effects associated with the existing nonattainment status of ozone and PM standards. However, as noted above, ascertaining cancer risk, or similar measurements of health effects from air pollutants, is very difficult for regional pollutants such as the ozone precursors ROG and NO_X, as there might be scientific limitations on an agency's ability to make the connection between air pollutant emissions and public health consequences in a credible fashion, given limitations in technical methodologies. For example, ozone concentrations depend upon various complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground level ozone concentrations related to the NAAQS and CAAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds.

Nonetheless, as discussed in Impact 4.2-2, operation of the Project Development Area would not result in emissions that exceed the EDCAQMD's thresholds of significance. Consequently, implementation of the proposed project is not anticipated to conflict with

the EDCAQMD's adopted attainment plans nor would the proposed project inhibit attainment of regional AAQS. Therefore, implementation of the Project Development Area portion of the proposed project is not anticipated to contribute towards regional health effects associated with the existing nonattainment status of ozone and PM standards.

Project Buildout

As discussed above, the EDCAQMD's thresholds of significance were established with consideration given to the health-based air quality standards established by the AAQS, and are designed to aid the district in implementing the applicable attainment plans to achieve attainment of the AAQS. Thus, if a project's criteria pollutant emissions exceed the EDCAQMD's mass emission thresholds of significance, a project would be considered to conflict with or obstruct implementation of the EDCAQMD's air quality planning efforts, thereby delaying attainment of the AAQS. However, as noted above, ascertaining cancer risk, or similar measurements of health effects from air pollutants, is very difficult for regional pollutants such as the ozone precursors ROG and NO_X, as there might be scientific limitations on an agency's ability to make the connection between air pollutant emissions and public health consequences in a credible fashion, given limitations in technical methodologies.

Nonetheless, as discussed in Impact 4.2-2, even with implementation of Mitigation Measures 4.2-2(a) and 4.2-2(b), Project Buildout could result in emissions that exceed the EDCAQMD's thresholds of significance during operations. Consequently, implementation of the proposed project could conflict with the EDCAQMD's adopted attainment plans or inhibit attainment of regional AAQS. Therefore, implementation of the proposed project under Project Buildout conditions could contribute towards regional health effects associated with the existing nonattainment status of ozone and PM standards.

Conclusion

Based on the above analysis, the proposed project's incremental contribution to the significant cumulative effect could be considered ***cumulatively considerable*** and, as a result, a ***significant*** impact could occur

Mitigation Measure(s)

The following mitigation measure would reduce operational ROG emissions from Project Buildout. However, as discussed under Impact 4.2-2 above, the feasibility and the relative effectiveness of the aforementioned measures cannot be conclusively determined at this time, and additional feasible mitigation sufficient to reduce the proposed project's operational ROG emissions to below the EDCAQMD's thresholds of significance is not currently available. Therefore, even with implementation of the following mitigation measure, the proposed project's incremental contribution to the significant cumulative effect would remain *cumulatively considerable* and *significant and unavoidable*.

Program Study Area

4.2-6 Implement Mitigation Measures 4.2-2(a) and 4.11-3.

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 and with 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 GHG emissions are inherently considered cumulative impacts.

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

As discussed in the Standards of Significance section above, the EDCAQMD has not formally adopted thresholds for evaluating GHG emissions, but has recommended the use of thresholds adopted by the SMAQMD. As such, this GHG analysis has been prepared to show compliance with SMAQMD's GHG thresholds of significance. The following includes a discussion of construction related and operational GHG emissions associated with the Project Development Area and Project Buildout.

Project Development Area

The following includes a discussion of construction related and operational GHG emissions associated with the Project Development Area.

Construction GHG Emissions

Construction-related GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. However, the construction GHG emissions for the Project Development Area have been estimated and compared to the applicable SMAQMD threshold of significance. The estimated unmitigated maximum annual construction-related emissions from the Project Development Area are presented in Table 4.2-11

As shown in the table, maximum emissions related to construction of the Project Development Area would not exceed the applicable threshold of significance. Therefore, Project Development Area construction would not be considered to result in a cumulatively considerable contribution to global climate change.

Table 4.2-11
Maximum Unmitigated Construction GHG Emissions – Project Development Area

	GHG Emissions ($MTCO_2e$/yr)
Project Development Area Emissions	669.00
SMAQMD Threshold	**1,100.00**
Exceeds Threshold?	**NO**

Source: CalEEMod, April 2024 (see Appendix D).

Operational GHG Emissions

The unmitigated maximum annual operational GHG emissions were estimated for the Project Development Area Scenario and are presented in Table 4.2-12.

Table 4.2-12
Unmitigated Annual Operational GHG Emissions ($MTCO_2e$/yr) – Project Development Area

Emission Source	Project Development Area Emissions
Mobile	949.00
Area	91.60
Energy	553.00
Water	12.70
Waste	70.60
Refrigerants	55.00
TOTAL ANNUAL GHG EMISSIONS	**1,732.00**

Note: Rounding may result in slight differences in summation.

Source: CalEEMod, April 2024 (see Appendix D).

The proposed 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 Development Area is required to include all electric appliances and plumbing. However, project specific information is not available to ensure that the Project Development Area would be designed and constructed without natural gas infrastructure. For example, the residential cottages are currently proposed to include natural gas fireplaces. In addition, the Project Development Area is anticipated to include two restaurants. As a result, the complete prohibition of natural gas was determined to be infeasible for the proposed project, as natural gas is anticipated to be used for cooking appliances in the potential restaurant kitchens and within the residential cottages. 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, in order to offset the use of natural gas associated with the Project Development Area, the proposed project would be required to implement GHG reduction measures as deemed feasible by the County and SMAQMD, such as the inclusion of pre-wiring to allow for the future retrofit of natural gas appliances with all-electric appliances. Without the inclusion of feasible GHG reduction measures, operation of the Project

Development Area 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, as discussed above, the potential exists that a challenge could be brought forth in the future and a future court decision could find that all-electric mitigation requirements or GHG emissions thresholds are preempted for covered appliances. The feasibility of BMP 1 also relies on the adequate availability of electricity at the time of development. Therefore, to conservatively address the possibility that implementation of BMP 1 may not be enforceable or 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 proposed project due the unenforceability of the prohibition of natural gas or commercial infeasibility of all electric is adequately offset at the time of project development.

BMP-2: EV-Ready

Consistent with BMP-2, the EV Ready parking spaces would be required to be provided within the Project Development Area at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces (see Table 4.2-13). However, project specific information is not available to ensure that development within the Project Development Area would be designed to include the required number of EV Ready and EVSE spaces. Therefore, compliance with BMP-2 would be ensured by Mitigation Measure 4.2-7(a).

Table 4.2-13
EV Ready Parking Space Requirements

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

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

BMP-3: No Net increase in Total VMT

As noted above, BMPs 1 and 2 would be required to be implemented during development of the Project Development Area. However, even with implementation of BMPs 1 and 2, the Project Development Area would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3. The proposed project would not qualify for exemption from BMP 3 under the OPR's *de minimis* VMT criteria.

As discussed in Chapter 4.11, Transportation, of this EIR, VMT associated with the Project Development Area would be less than 85 percent of the Baseline VMT per capita within the project area. Therefore, according to the Transportation Impact Study prepared for the proposed project by T. Kear Transportation, VMT impacts associated with the Project Development Area would be less than significant. Consequently, the Project Development Area would meet the requirements of an established local SB 743 target, which would ensure the proposed project would comply with BMP-3.

Project Buildout

The following includes a discussion of construction related and operational GHG emissions associated with Project Buildout.

Construction GHG Emissions

Construction GHG emissions associated with Project Buildout have been estimated and compared to the applicable SMAQMD threshold of significance. As discussed above, construction of the Project Development Area and the Program Study Area is not anticipated to occur concurrently. Therefore, construction GHG emissions associated with the two development areas are considered separately throughout this analysis. As discussed above, construction activities associated with the Project Development Area Scenario would result in construction related GHG emissions below the applicable SMAQMD threshold of significance. However, as shown in Table 4.2-14, construction activities associated with the Program Study Area Scenario would result in GHG emissions that exceed the applicable SMAQMD threshold of significance.

Table 4.2-14
Maximum Unmitigated Construction GHG Emissions – Program Study Area

	GHG Emissions ($MTCO_2e$/yr)
Program Study Area Emissions	1,385.00
SMAQMD Threshold	**1,100.00**
Exceeds Threshold?	**YES**

Source: CalEEMod, April 2024 (see Appendix D).

Therefore, construction associated with the Program Study Area, and, as a result, Project Buildout, could be considered to result in a cumulatively considerable contribution to global climate change.

Operational GHG Emissions

As discussed above, because the Project Development Area and the Program Study Area would be concurrently operational in the future (conservatively assumed to be the year 2029 for this analysis), operational emissions associated with the two development areas were considered collectively. As such, the unmitigated maximum annual operational GHG emissions estimated for the Project Development Area Scenario and the Program Study Area Scenario, as well as Project Buildout (i.e., the sum of GHG emissions associated with both scenarios) are presented in Table 4.2-15.

Table 4.2-15
Unmitigated Annual Operational GHG Emissions ($MTCO_2e$/yr) – Project Buildout

Emission Source	Project Development Area Emissions	Program Study Area Emissions	Project Buildout Emissions
Mobile	949.00	7,183.00	8,132.00
Area	91.60	10.00	101.60
Energy	553.00	811.00	1,364.00
Water	12.70	33.90	46.60
Waste	70.60	266.00	336.60
Refrigerants	55.00	1.06	56.06
TOTAL ANNUAL GHG EMISSIONS	**1,732.00**	**8,304.00**	**10,036.00**

Note: Rounding may result in slight differences in summation.

Source: CalEEMod, April 2024 (see Appendix D).

The proposed 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, all electric appliances and plumbing would be required at full buildout of the proposed project. However, project specific information is not available to ensure that the proposed project would be designed and constructed without natural gas infrastructure at Project Buildout. Compliance with such requirements would be ensured by Mitigation Measure 4.2-7(a). Therefore, with implementation of Mitigation Measure 4.2-7(a) the proposed project would comply with BMP-1 at Project Buildout.

It should be noted, however, that as discussed above, the potential exists that a challenge could be brought forth in the future and a future court decision could find that all-electric mitigation requirements or GHG emissions thresholds are preempted for covered appliances. The feasibility of BMP 1 also relies on the adequate availability of electricity at the time of development. Therefore, to conservatively address the possibility that implementation of BMP 1 may not be enforceable or 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 proposed project due 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

Similar to the above, consistent with BMP-2, at Project Buildout, EV Ready parking spaces would be required to be provided within the project site at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces. However, as discussed above, project specific information is not available to ensure that development within the Project Development Area would be designed to include the required number of EV Ready and EVSE spaces. In addition, given that the timing of development for the Program Study Area is not currently known, the current (i.e., most recently adopted) CalGreen Tier 2 standards would vary depending on when the Program Study Area is developed. For example, Table 4.2-13 presents EV Ready parking spaces requirements based on the 2022 CALGreen Code, which is the most recently adopted version of CALGreen Code currently available. Compliance with BMP-2 would be ensured by Mitigation Measure 4.2-7(a).

BMP-3: No Net increase in Total VMT

As noted above, BMPs 1 and 2 would be required to be implemented as part of Project Buildout. However, even with implementation of BMPs 1 and 2, the proposed project would still result in annual emissions over the SMAQMD's threshold of significance and, therefore, would be subject to BMP 3. The proposed project would not qualify for exemption from BMP 3 under the OPR's *de minimis* VMT criteria.

As discussed in Chapter 4.11, Transportation, of this EIR and noted above, VMT associated with the Project Development Area would be less than 85 percent of the Baseline VMT per capita within the project area. Therefore, according to the Transportation Impact Study prepared for the proposed project by T. Kear Transportation, VMT impacts associated with the Project Development Area would be less than significant. With regard to the Program Study Area, the Transportation Impact Study concluded that VMT associated with the retail portion of the Program Study Area would be less than 85 percent of the Baseline VMT per capita within the project area, and, therefore, would result in a less-than-significant impact. However, VMT associated with the residential portion of the Program Study Area would exceed 85 percent of the Baseline VMT per capita within the project area, and, therefore, would result in a significant impact. Therefore, because residential VMT associated with the Program Study Area would be above the applicable VMT threshold, VMT impacts associated with Project Buildout would be significant.

Consequently, the proposed project under Project Buildout conditions would not meet the requirements of an established local SB 743 target, and, as a result, would not comply with BMP-3.

Conclusion

Based on the information presented above, the proposed project could be considered to generate GHG emissions during construction that would have a significant impact on the environment. In addition, project consistency with the SMAQMD BMPs cannot be ensured at this time. Therefore, the proposed project could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Consequently, the project could result in a cumulatively considerable incremental contribution to impacts related to GHG emissions or climate change and the project's impact would be ***significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impacts related to construction GHG emissions, as well as BMP-1 and BMP-2 to a less-than-significant level. As a result, the Project Development Area's incremental contribution to the cumulatively significant effects of GHG emissions and global climate change would be reduced to a less than cumulatively considerable level.

With regard to BMP-3, as discussed further in Chapter 4.11, Transportation, of this EIR, mitigation for the VMT associated with the residential portion of the Program Study Area can be based on measures identified by CAPCOA. However, several of such measures are already inherently included in the design of the project, specifically the substantial densification relative to surrounding land uses, the mixed-use nature of the project, and bicycle connectivity. Additional CAPCOA measures, such as unbundling of parking costs from rent and reducing parking supply, are included as Mitigation Measure 4.11-3 to reduce the number of vehicle trips that would be generated by the residential component of the Program Study Area. However, as discussed therein, the CAPCOA measures ultimately rely upon an alternative transportation mode, such as transit, being available. Because alternative modes are not available for the residential portion of the Program Study Area, the measures should only be implemented as practicable, to the satisfaction of the County Engineer. Thus, the CAPCOA measures included in Mitigation Measure 4.11-3 are not anticipated to reduce per capita VMT by the required 13.83 percent needed to meet the applicable threshold of significance. Consequently, the proposed project would still be considered inconsistent with SMAQMD BMP-3, and the incremental contribution to the cumulatively significant effects of GHG emissions and global climate change related to full Project Buildout, specifically, the residential portion of the Program Study Area, would remain *cumulatively considerable* and *significant and unavoidable*.

Project Development Area and Project Buildout

4.2-7(a) The following requirements shall be noted on project improvement plans, subject to review and approval by the El Dorado County Planning and Building Department:

- *The proposed project shall be designed such that the project is built all-electric, and natural gas infrastructure shall be prohibited on-site; and*
- *The project shall be constructed to include electric vehicle (EV) ready parking spaces at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces.*

If the use of all-electric for any project component(s) (e.g., an appliance) is not enforceable or commercially feasible at the time of issuance of building permit, the applicant shall be required to include pre-wiring to allow for the future retrofit of all natural gas appliances with all-electric appliances and purchase off-site mitigation credits or forecasted mitigation units ("FMUs") (collectively, "GHG credits") for project-related GHG emissions from the component(s) using natural gas instead of electric. The emissions from the use of natural gas shall be calculated by a qualified professional utilizing EDCAQMD-, CARB-, or the USEPA-approved emissions models and quantification methods available and submitted to the County for review and approval, which shall include third-party review by a qualified consultant of the County's selection and be subject to applicant reimbursement of consultant costs.

Any and all GHG credits to off-set 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 County 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 County 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 County may be purchased if adequate credits cannot be found in the County 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 County 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.

Program Study Area

4.2-7(b) Prior to the initiation of construction of the Program Study Area, the project applicant shall demonstrate that construction-related GHG emissions would be reduced to 1,100 $MTCO_2e$/yr and shall submit proof to the El Dorado County Planning and Building Department.

Construction-related GHG emissions can be reduced through several options, including, but not limited to, the following:

- *Modify the construction schedule to reduce the intensity of construction to lower emissions;*
- *Ensure that phases of development do not overlap;*
- *Use of renewable diesel for construction fuel rather than diesel;*
- *Improve fuel efficiency from construction equipment by:*
  - *Minimizing idling time either by shutting equipment off when not in use or reducing the time of idling to no more than three minutes (five-minute limit is required by the state airborne toxics control measure [Title 13, sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear*

signage that posts this requirement for workers at the entrances to the site; and
    - *Using equipment with new technologies (repowered engines, electric drive trains).*
- *Perform on-site emission reductions such as implementing on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines) or real, quantifiable, permanent, verifiable, and enforceable on-site emission reductions;*
- *Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power;*
- *Use a CARB-approved low carbon fuel for construction equipment; (NO_X emissions from the use of low carbon fuel must be reviewed and increases mitigated.)*
- *Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes;*
- *Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones;*
- *Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75 percent by weight);*
- *Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program;*
- *Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option;*
- *Produce concrete on-site if determined to be less emissive than transporting ready mix;*
- *Use SmartWay certified trucks for deliveries and equipment transport; and*
- *Develop a plan to efficiently use water for adequate dust control.*

The project applicant may elect to implement any combination of the foregoing measures to reduce construction-related GHG emissions. All GHG emissions reductions must be quantified. Compliance with the aforementioned measures shall be ensured by the El Dorado County Planning and Building Department.

If the quantified reduction measures do not reduce construction-related GHG emissions to below 1,100 $MTCO_2e$/yr, offsite carbon credits may be purchased to make up the difference. The purchase of off-site mitigation credits shall be negotiated with the County and EDCAQMD at the time that credits are sought. Off-site mitigation credits shall be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). The offsets shall be retired, and emissions must be offset through the year 2045. Such credits shall be based on CARB-approved

protocols that are consistent with the criteria set forth in subdivision (a) of Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by El Dorado County and/or the EDCAQMD. Such credits must be purchased through one of the following: (i) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) any registry established by EDCAQMD.

4.2-7(c) Implement Mitigation Measure 4.11-3

4.2-8 Result in a cumulatively considerable 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 applies to the potential for the Project Development Area and Project Buildout to result in a cumulatively considerable inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.

Project Development Area and Project Buildout

Impact 4.2-5 discusses the consumption of energy on a project level related to the Project Development Area and Project Buildout, within the context of existing State plans and regulations. As discussed previously, development of the proposed 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 project. 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 Development Area and Project Buildout 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 development of the proposed project, all future development within El Dorado County 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, pursuant to 2022 CBSC, new residential buildings associated with cumulative development would be required to include on-site solar to meet the project's energy demands, and new non-residential buildings associated with cumulative development would be required to be solar ready. 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.

Conclusion

Based on the above, implementation of the project in combination with other cumulative development in the project region 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*** 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 project site and surrounding environs. The chapter describes the proposed 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 E of this EIR)[1] and an Oak Resources Technical Report (ORTR) (see Appendix F of this EIR)[2] prepared for the proposed project by Madrone Ecological Consulting (Madrone). Further information was sourced from the El Dorado County General Plan and the El Dorado County General Plan EIR,[3,4] and the Bass Lake Hills Specific Plan (BLHSP),[5] and the Bass Lake Road Study Area Program EIR (Bass Lake EIR).[6] In addition, the Biological Resources Evaluation for the Bass Lake North Bike Trail Project (BRE) prepared by SWCA Environmental Consultants (SWCA) is incorporated by reference into this chapter with respect to potential impacts related to the optional off-site water main alignment within the approved Bass Lake North Bike Trail.[7]

4.3.2 EXISTING ENVIRONMENTAL SETTING

The following sections describe the regional biological setting in which the project site is located, the biological setting of the project site, and the special-status species and sensitive natural communities known to occur within the project site and surrounding environs.

Regional Setting

The project site consists of approximately 60.5 acres located approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road, in El Dorado County. The project site is located in the southern central portion of the BLHSP, in western El Dorado County. El Dorado County is characterized by a wide range of elevations and varied terrain, diverse substrate material, large tracts of contiguous natural habitat, and a broad range of climatic conditions. Coniferous forest is dominant at higher elevations in the eastern half of the County; oak and hardwood habitats are found mostly in the central region; and annual grassland, chaparral, agriculture, and urban development is found primarily in the western third of the County. Temperatures in the project region fluctuate from average highs in July of 91 degrees Fahrenheit, with average lows in

1 Madrone Ecological Consulting. *Biological Resources Assessment, Town and Country Village, El Dorado County, California*. June 2024.
2 Madrone Ecological Consulting. *Oak Resources Technical Report, Town and Country Village, El Dorado County, California*. June 2024.
3 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.
4 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.
5 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
6 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.
7 SWCA Environmental Consultants. *Biological Resources Evaluation for the Bass Lake North Bike Trail Project, El Dorado Hills, El Dorado County, California.* October 2022.

December of 41 degrees Fahrenheit.[8] Nearly all precipitation occurs between October and April in the form of rainfall, with February typically the wettest month, averaging 5.1 inches.

Project Setting

The approximately 81.8-acre study area for the BRA consists of both the Project Development Area and Program Study Area of the project site, as well as the two off-site sewer alternatives and the two off-site waterline alternatives, as defined in Chapter 3, Project Description, of this EIR (see Figure 4.3-1). Throughout this chapter, unless otherwise specified, the off-site utilities improvements are included as part of the Project Development Area. As noted in Chapter 3, this EIR evaluates two off-site water main alignments from the project site north along Bass Lake Road to the existing line in Hollow Oaks Drive. One of the options consists of routing the off-site water main within the approved Bass Lake North Bike Trail alignment, which has already received environmental clearance and resource agency permits. As a result, rather than re-evaluate this alignment in the BRA, this EIR incorporates by reference the environmental analysis performed for the Bass Lake North Bike Trail. The alignment of the approved Bass Lake North Bike Trail that would extend along the east side of Bass Lake Road is labeled as Waterline Alternative 2 in Figure 4.3-1; however, as mentioned above, it is not incorporated into the various sections of the BRA, but will be accounted for in this chapter.

The project site generally slopes downhill from east to west and consists primarily of gently rolling grassy hills. Elevations range from approximately 1,320 feet above mean sea level (amsl) at the eastern edge of the study area to approximately 800 feet amsl at the western extent along Carson Creek and Russi Ranch Drive.

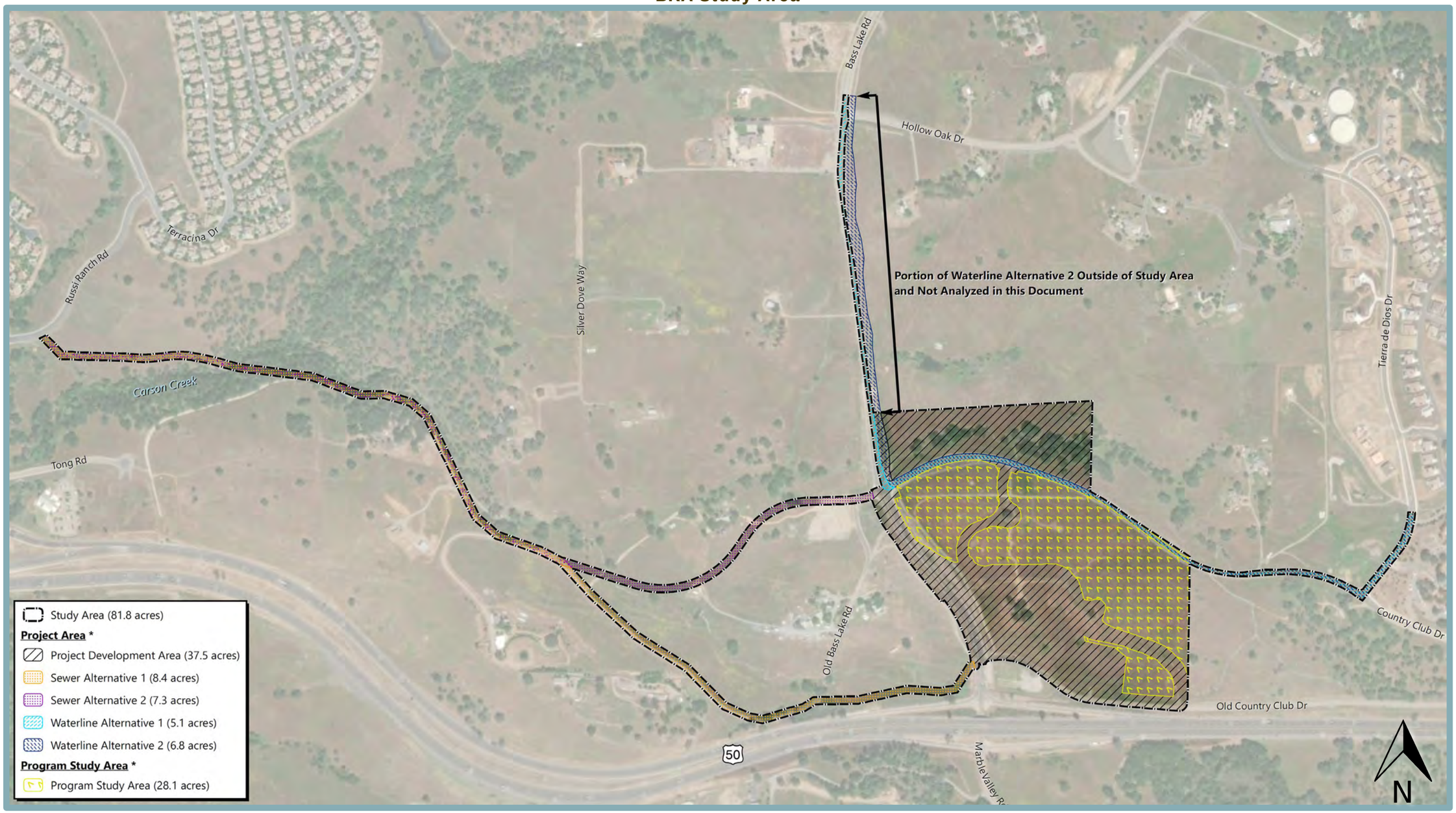
The study area is largely comprised of ungrazed annual brome grasslands with widely scattered oak trees. Oak woodlands occur in the vicinity of an intermittent drainage located in the northern portion of the study area, as well as along Carson Creek, which is located in the western portion of the study area. Carson Creek runs over bedrock, and the adjacent slopes are steep, restricting the extent of riparian vegetation to a narrow band of arroyo willow riparian scrub. The oak woodland south of Carson Creek has a dense, closed canopy, as is typical for north-facing slopes in the region. Bass Lake Road cuts from north to south through the study area, and Country Club Drive runs from west to east. Segments of Old Bass Lake Road and Old Country Club Drive also occur within portions of the study area. Several seasonal wetlands and two seasonal wetland swales occur just north of Old Country Club Drive, and one seasonal wetland occurs near the ephemeral drainage in the western portion of the study area. A few seeps occur on slopes in the annual brome grasslands. Roadside ditches run along the edges of a number of roadways within the study area, and three portions of ephemeral drainages occur within infrastructure-related portions of the study area. Unvegetated areas are scattered throughout the study area along farm roads.

Terrestrial Vegetation Communities

Madrone identified the following terrestrial vegetation communities within the study area: annual brome grassland, arroyo willow riparian woodland, oak woodland, dirt road, and paved road. The terrestrial vegetation communities mapped within the study area are shown in Figure 4.3-2 summarized in Table 4.3-1. The study area's terrestrial vegetation communities are discussed in further detail below.

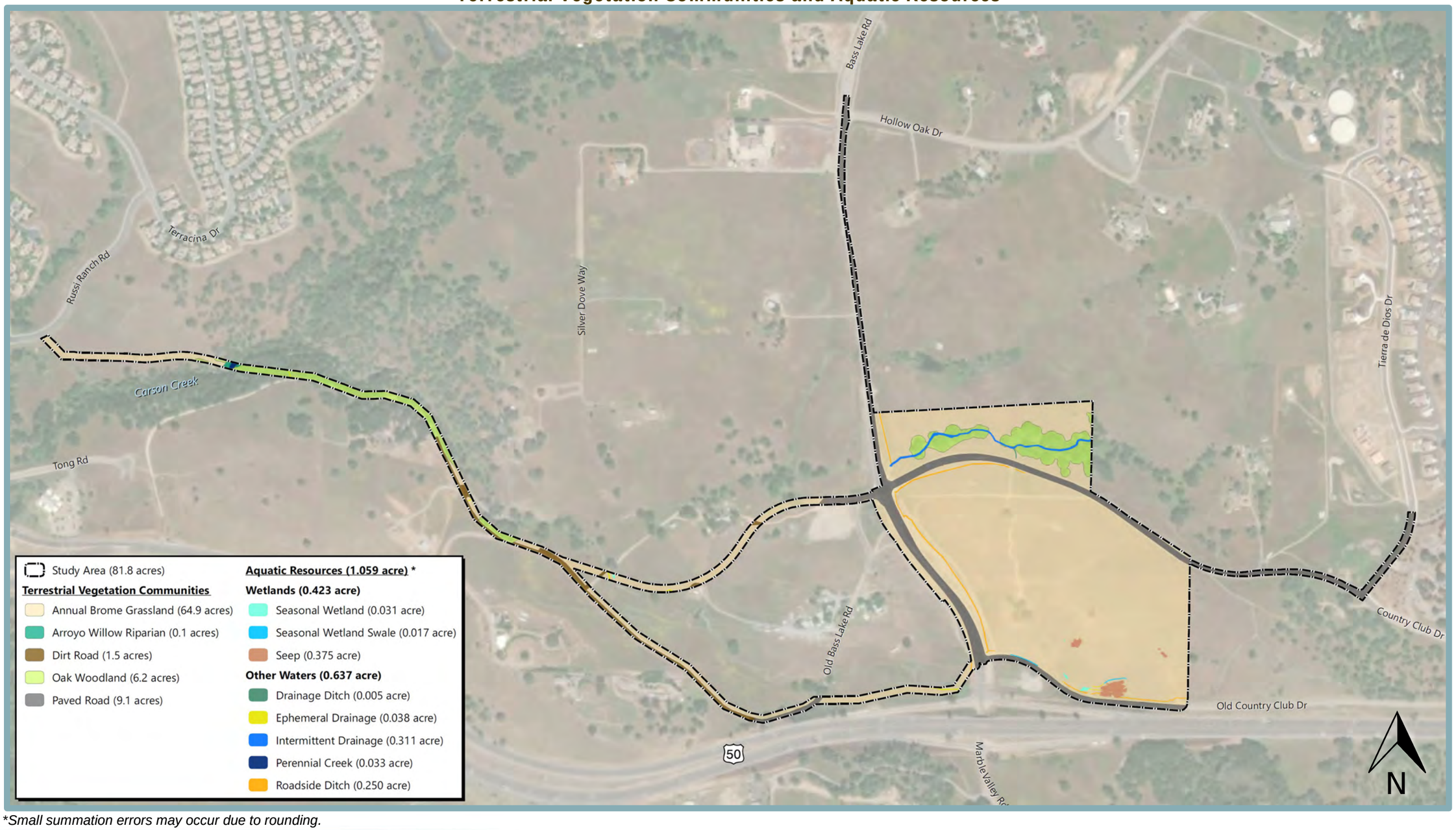
[8] Weather Spark. *Climate and Average Weather Year Round in Cameron Park*. Available at: https://weatherspark.com/y/1341/Average-Weather-in-Cameron-Park-California-United-States-Year-Round. Accessed March 2024.

Figure 4.3-1
BRA Study Area



**Component acreages do not sum to the study area acreage due to overlapping alternatives.*

Figure 4.3-2
Terrestrial Vegetation Communities and Aquatic Resources



**Small summation errors may occur due to rounding.*

Table 4.3-1
Terrestrial Vegetation Communities within the Project Site

Terrestrial Vegetation Communities	Project Development Area (acres)	Program Study Area (acres)	Total (acres)
Annual Brome Grassland	37.0	27.9	64.9
Arroyo Willow Riparian Woodland	0.1	--	0.1
Oak Woodland	6.2	--	6.2
Dirt Road	1.5	--	1.5
Paved Road	8.9	0.2	9.1
Total	**53.7**	**28.1**	**81.8**

Source: Madrone Ecological Consulting, 2024.

Annual Brome Grassland

The annual brome grassland within the study area is dominated by ripgut brome (*Bromus diandrus*), soft brome (*B. hordeaceus*), wild oat (*Avena fatua*), Italian ryegrass (*Festuca perennis*), purple false brome (*Brachypodium distachyon),* and winter vetch *(Vicia villosa* subsp*. varia)*.

Other species occurring frequently in the annual brome grassland within the study area include wild radish (*Raphanus sativus*), Ithuriel's spear (*Triteleia laxa*), rose clover (*Trifolium hirtum*), and purple clarkia (*Clarkia purpurea* subsp*. quadrivulnera*). Seasonal wetlands, seasonal wetland swales, and seeps occur occasionally throughout the community.

Arroyo Willow Riparian Scrub

A narrow band of arroyo willow riparian scrub occurs along Carson Creek within the sewer alternative overlap portion of the study area. The canopy of the community is dominated by arroyo willow (*Salix lasiolepis*) and buttonwillow (*Cephalanthus occidentalis*). The understory is comprised primarily of bedrock, but a few herbaceous species have established in cracks in the bedrock and in sediment along the creek's edge. Such herbaceous species include Indian hemp (*Apocynum cannabinum*), Torrey's willowherb (*Epilobium torreyi),* sticktight (*Bidens frondosa)*, Lady's thumb (*Persicaria maculosa),* False waterpepper (*Persicaria hydropiperoides),* western goldenrod (*Euthamia occidentalis),* mugwort (*Artemisia douglasiana),* tall nutsedge (*Cyperus eragrostis),* rice cutgrass (*Leersia oryzoides),* and seep monkeyflower (*Erythranthe guttata).*

Oak Woodland

Oak woodland occurs in the northern portion of the study area, in association with the intermittent creek, and in the portions of the sewer alternatives. The oak woodland has a primarily closed canopy that is dominated by interior live oak (*Quercus wislizeni*) and blue oak (*Quercus douglasii*). Other commonly occurring species include Valley oak (*Quercus lobata*), California buckeye (*Aesculus californica*) and foothill pine (*Pinus sabiniana)*. Western poison oak (*Toxicodendron diversilobum*) and chaparral honeysuckle (*Lonicera interrupta*) are dominants in the shrub layer. The herbaceous understory is dominated by ripgut brome, slender wild oat (*Avena barbata*), and tall sock-destroyer (*Torilis arvensis*), as well as occasional Italian thistle (*Carduus pycnocephalus* subsp*. pycnocephalus*), bristly dogtail grass (*Cynosurus echinatus),* goldback fern (*Pentagramma triangularis),* twining brodiaea (*Dichelostemma volubile),* soft brome, and common soap plant (*Chlorogalum pomeridianum var. pomeridianum).* Several rock outcrops are interspersed within the oak woodland area.

Roads

Bass Lake Road, Country Club Drive, and Old Country Club Drive are paved roadways within the study area. Old Bass Lake Road and regularly used driveways within the Sewer Alternatives have been mapped as dirt road; they are well maintained, regularly used dirt roads. Madrone did not map the portion of the dirt road that runs through the oak woodlands, as the tree canopies overhang almost the entire roadway, and, as such, it was anticipated that impacts within the roadway could impact the adjacent oak trees.

Aquatic Resources

A total of approximately 1.059-acre of aquatic resources were delineated within the project site in accordance with the U.S. Army Corps of Engineers (USACE) Sacramento District's Minimum Standards for Acceptance of Preliminary Wetlands Delineations, and were verified by the USACE with Preliminary Jurisdictional Determinations (PJDs) (see Figure 4.3-2). Table 4.3-2 below provides the acreage of each aquatic resource located within the study area, as well as a detailed description of each.

Table 4.3-2
Aquatic Resources Within the Study Area

Waters Type	Project Development Area (acres)	Program Study Area (acres)	Total (acres)
Wetlands			
Seasonal Wetland	0.031	--	0.031
Seasonal Wetland Swale	0.017	--	0.017
Seep	0.360	0.015	0.375
Other Waters			
Drainage Ditch	0.005	--	0.005
Ephemeral Drainage	0.038	--	0.038
Intermittent Drainage	0.311	--	0.311
Perennial Creek (Carson Creek)	0.033	--	0.033
Roadside Ditch	0.150	0.100	0.250
Total	**0.945**	**0.115**	**1.059**

Note: Small summation errors may occur due to rounding.

Source: Madrone Ecological Consulting, 2024.

In addition to the aquatic resources shown in Table 4.3-2 above, the Bass Lake North Bike Trail alignment contains approximately 0.21-acre of seasonal wetlands and approximately 0.03-acre of ephemeral drainage.

Seasonal Wetland

Four seasonal wetlands occur within the southern portion of the study area. Seasonal wetlands are depressional wetlands that pond water seasonally. Two of the seasonal wetlands are depressional and are dominated by needle-leaf navarretia (*Navarretia intertexta*), Mediterranean beard grass (*Polypogon maritimus*), and Mediterranean barley (*Hordeum marinum*). Other species in the depressional wetlands within the study area include bractless hedge-hyssop (*Gratiola ebracteata*), slender popcorn flower (*Plagiobothrys stipitatus var. micranthus*), annual hairgrass (*Deschampsia danthonioides*), hyssop loosestrife (*Lythrum hyssopifolium*), slender tarweed (*Holocarpha virgata*), turkey mullein (*Croton setiger*), creeping spikerush (*Eleocharis*

macrostachya), stinkwort (*Dittrichia graveolens*), and hairy cat's ear (*Leontodon saxatilis*). The remaining seasonal wetlands are slope wetlands, which are dominated by iris-leaved rush (*Juncus xiphioides*) and annual rabbitsfoot grass (*Polypogon monspeliensis*). Other species commonly occurring in the slope wetlands within the study area include Baltic rush (*Juncus balticus*) and Spanish lotus (*Acmispon americanus*).

Seasonal Wetland Swale

Two seasonal wetland swales are present within the study area. Seasonal wetland swales are linear seasonal wetlands that convey surface runoff and may detain runoff for short periods of time. The vegetation in the seasonal wetland swales is similar to that found in the sloping seasonal wetlands. The seasonal wetland swales are dominated by iris-leaved rush. Other species commonly found in seasonal wetland swales include Spanish lotus, curly dock (*Rumex crispus*), and Mediterranean beard grass.

Seep

Seeps are areas where groundwater reaches the surface through porous soil or cracks in rock. Seeps result in seasonal or perennial soil saturation with minimal standing water and gentle flows. Five seeps were mapped within the study area. Dominant plant species identified within the seeps include iris-leaved rush, Baltic rush, and Sonoma hedge nettle (*Stachys stricta*). Other common plants include hyssop loosestrife, annual quaking grass (*Briza minor),* cut-leaf geranium (*Geranium dissectum*), common sow thistle (*Sonchus oleraceus),* and Italian thistle (*Carduus alus*).

Drainage Ditch

A constructed drainage ditch conveys flows collected in roadside ditches along Country Club Drive into the intermittent drainage to the north. The drainage ditch is lined with rocks and is entirely unvegetated.

Ephemeral Drainage

Five ephemeral drainages occur within the study area. Ephemeral drainages are linear features that convey runoff for short periods of time, during and immediately following rain events, and do not convey any groundwater flows. Several ephemeral drainages occur within the sewer alternatives. The ephemeral drainages are almost entirely unvegetated, and any sparse vegetation that does occur is typical of the surrounding terrestrial vegetation community.

Intermittent Drainage

One intermittent drainage runs through the northern portion of the study area. The intermittent drainage has a variable substrate, ranging from sand and mud in some areas to bedrock in others. The intermittent drainage is entirely unvegetated within the channel due to the depth and scouring effects of water. The intermittent drainage runs through oak woodlands for much of its length, and as a result of the closed canopy, very little herbaceous vegetation occurs along the banks in those areas. Portions of the drainage that run through annual brome grasslands are primarily bordered by grasses and forbs typical of that community, but also support scattered seep monkeyflower (*Erythranthe guttata*) and other herbaceous hydrophytes.

Perennial Creek (Carson Creek)

Carson Creek, which is perennial creek with a bedrock substrate, runs through the western portion of the study area. Carson Creek is almost entirely unvegetated within the channel, but a few plants occur on the banks and in areas where sediment has accumulated within the channel. These

plants are described above in the description of arroyo willow riparian scrub, which borders the creek. Plants observed within and adjacent to Carson Creek include narrow-leaved cattail (*Typha angustifolia)*, Torrey's willowherb, sticktight, lady's thumb, false waterpepper, western goldenrod, mugwort, tall nutsedge, rice cutgrass, and seep monkeyflower.

Roadside Ditch

Several roadside ditches were mapped within the study area along Bass Lake Road, Country Club Drive, and Old Country Club Drive. The roadside ditches were constructed adjacent to the roadways and serve to convey stormwater runoff away from the road. The roadside ditches are entirely unvegetated due to ditch maintenance and due to the fact that many of the roadside ditches are lined with rock, presumably for flow attenuation.

Special-Status Species

Special-status species are species that have been listed as threatened or endangered under the federal Endangered Species Act (FESA), California Endangered Species Act (CESA), or are of special concern to federal resource agencies, the State, or private conservation organizations. 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 the California Native Plant Society (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.

Listed and Special-Status Plant Species

According to the records of the California Natural Diversity Database (CNDDB), maintained by the CDFW, 21 special-status plant species have the potential to occur on or within five miles of the study area, 10 of which have been documented within five miles of the study area (see Figure 4.3-3).

Table 4.3-3 lists all 21 special-status plant species with potential to occur in the vicinity of the study area. As part of determining the potential for special-status plant and wildlife species to occur within the study area, the following set of criteria was used:

- Present: Species occurs within the study area based on CNDDB records and/or was observed within the study area during the field surveys;

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

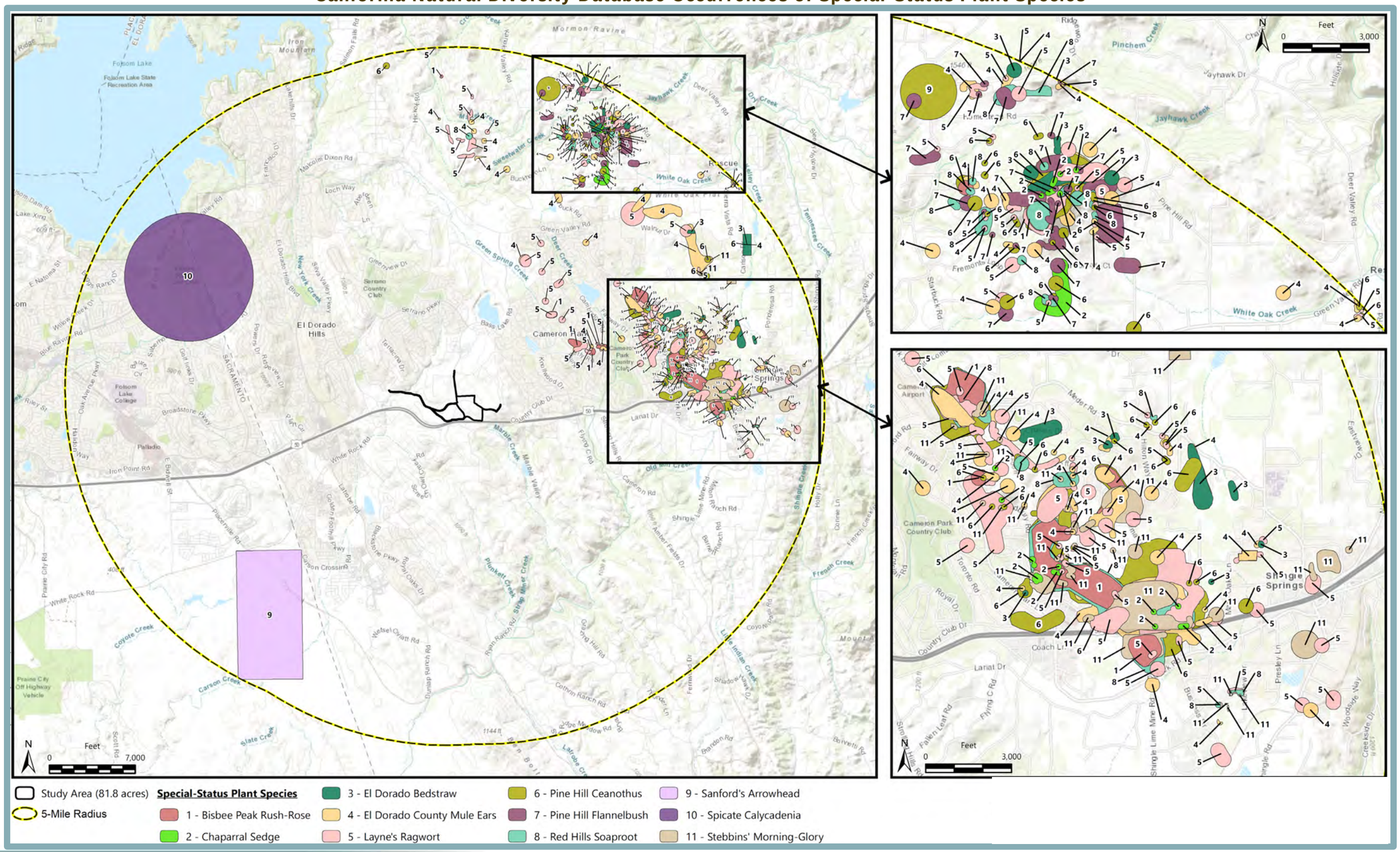


Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Plants				
Allium jepsonii Jepson's onion	--	CRPR 1B.2	Prefers cismontane woodland or lower montane coniferous forests associated with serpentine soils or volcanic slopes between 985 feet and 4,300 amsl.	**Habitat Not Present**. Serpentine and basalt are not located within the study area.
Balsamorhiza macrolepis Big-scale balsamroot	--	CRPR 1B.2	Prefers chaparral, cismontane woodland, and valley and foothill grasslands. Often associated with serpentine soils. Occurs at elevations between 150 feet and 5,100 feet amsl.	**Absent**. Marginally suitable habitat is present due to lack of serpentine soils. The species was not found during protocol surveys the study area.
Calycadenia spicata Spicate rosinweed	--	CRPR 1B.3	Occurs in disturbed areas and openings in cismontane woodland and annual grassland between 130 feet and 4,600 feet amsl. Often associated with adobe clay, gravelly areas, rock outcrops, and mine tailings.	**Absent**. Suitable habitat for the species occurs in the vicinity of rock outcrops and gravelly areas in annual brome grasslands throughout the study area. The plant was not found during protocol surveys of the study area.
Calystegia stebbinsii Stebbins' morning glory	FE	CE, CRPR 1B.1	Foothill chaparral and cismontane woodland associated with gabbro soils. Occurs at elevations between 1,445 feet and 2,525 feet amsl.	**Habitat Not Present**. Gabbro soils do not occur within the study area.
Carex xerophila Chaparral sedge	--	CRPR 1B.2	Prefers chaparral, cismontane woodland, lower montane coniferous forest with serpentine or gabbro soils. Occurs at elevations between 1,445 feet and 2,525 feet amsl.	**Habitat Not Present**. Serpentine and gabbro soils do not occur within the study area.
Ceanothus roderickii Pine Hill ceanothus	FE	CR, CRPR 1B.1	Foothill chaparral and cismontane woodland associated with gabbro and serpentine soils. Occurs at elevations between 805 feet and 3,575 feet amsl.	**Habitat Not Present**. Serpentine and gabbro soils do not occur within the study area.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Chlorogalum grandiflorum Red Hills soaproot	--	CRPR 1B.2	Prefers cismontane woodland, chaparral, and lower montane coniferous forest. Occurs frequently on serpentine or gabbro soils, but also on non-utramafic substrates. Often occurs on "historically disturbed" sites. Occurs at elevations between 805 feet and 5,545 feet amsl.	**Absent**. Marginally suitable habitat is present within the oak woodlands throughout the study area. The habitat is only marginally suitable due to the lack of gabbro or serpentine soils. The plant was not found during protocol surveys of the study area.
Crocanthemum suffrutescens Bisbee Peak rush rose	--	CRPR 3.2	Occurs in open areas within chaparral, and is sometimes found in gabbro soils. Occurs at elevations between 245 feet and 2,200 feet amsl.	**Habitat Not Present**. Chaparral does not occur within the study area.
Downingia pusilla Dwarf downingia	--	CRPR 2B.2	Occurs in mesic areas in valley and foothill grassland and in vernal pools. Occurs at elevations between three feet and 1,460 feet amsl.	**Absent**. The study area is located at the edge of the elevational range for the species, but limited suitable habitat occurs within the seasonal wetlands within the study area. The plant was not found during protocol surveys of the study area.
Eryngium pinnatisectum Tuolumne button-celery	--	CRPR 1B.2	Found in vernal pools and other mesic areas in cismontane woodland and lower montane coniferous forests. Occurs at elevations between 230 feet and 3,000 feet amsl.	**Absent**. Suitable habitat for the species occurs within and on the edges of aquatic resources throughout the study area. The plant was not found during protocol surveys of the study area.
Fremontodendrom decumbens Pine Hill flannelbush	FE	CR, CRPR 1B.2	Foothill chaparral and cismontane woodland. Occurs on rocky ridges, gabbro or serpentine soils, and often among rocks and boulders. Occurs at elevations between 1,395 feet and 2,495 feet amsl.	**Habitat Not Present**. Serpentine and gabbro soils do not occur within the study area.
Galium californicum ssp. *sierrae* El Dorado bedstraw	FE	CR CRPR 1B.2	Occurs in foothill chaparral and cismontane woodland. The species is restricted to gabbroic or serpentine soils. Occurs at elevations between 330 feet and 1,920 feet amsl.	**Habitat Not Present**. Serpentine and gabbro soils do not occur within the study area.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Gratiola heterosepala Bogg's Lake hedge-hyssop	--	CE, CRPR 1B.2	Occurs in vernal pools and along the margins of lakes/ponds on clay soils. Occurs at elevations between 35 feet and 7,790 feet amsl.	**Habitat Not Present**. Vernal pools, lakes, and clay soils do not occur within the study area.
Juncus leiospermus var. *ahartii* Ahart's dwarf rush	--	CRPR 1B.2	Occurs along the edges of vernal pools and other seasonally ponded features. Occurs at elevations between 100 feet and 750 feet amsl.	**Habitat Not Present**. The study area is located outside of the elevational range for the species.
Legenere limosa Legenere	--	CRPR 1B.1	Occurs in vernal pools. Occurs at elevations between five feet and 2,885 feet amsl.	**Habitat Not Present**. Vernal pools or other suitable features do not occur within the study area.
Navarretia myersii ssp. *myersii* Pincushion navarretia	--	CRPR 1B.1	Occurs in vernal pools. Occurs at elevations between 65 feet and 1,085 feet amsl.	**Habitat Not Present**. Vernal pools do not occur within the study area.
Orcuttia tenuis Slender Orcutt grass	FT	CE, CRPR 1B.1	Occurs in vernal pools and other seasonally ponded features. Occurs at elevations between 115 feet and 5,775 feet amsl.	**Habitat Not Present**. Vernal pools or other suitable features do not occur within the study area.
Orcuttia viscida Sacramento Orcutt grass	FE	CE, CRPR 1B.1	Occurs in vernal pools. Occurs at elevations between 100 feet and 330 feet.	**Habitat Not Present**. Vernal pools do not occur within the study area.
Packera layneae Layne's ragwort	FT	CR, CRPR 1B.2	Occurs in foothill chaparral and cismontane woodland with rocky, gabbroic, or serpentine soils. Occurs at elevations between 655 feet and 3,560 feet amsl.	**Habitat Not Present**. Serpentine and gabbro soils do not occur within the study area.
Sagittaria sanfordii Sanford's arrowhead	--	CRPR 1B.2	Occurs in emergent marsh habitat, typically associated with drainages, canals, or irrigation ditches. Occurs at elevations between sea level and 2,135 feet amsl.	**Absent**. Suitable habitat for the species occurs within Carson Creek and the intermittent drainage within the study area. Protocol-level surveys of the study area did not detect the species.
Wyethia reticulata El Dorado County mule ears	--	CRPR 1B.2	Occurs in foothill chaparral and cismontane woodland associated with clay or gabbro soils. Occurs at elevations between 605 feet and 2,065 feet amsl.	**Habitat Not Present**. Serpentine and gabbro soils do not occur within the study area.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Invertebrates				
Bombus crotchii Crotch bumble bee	--	CC	Occurs in open grasslands and scrub habitats. The species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills throughout most of southwestern California.	**High**. The annual brome grasslands throughout the study area provide suitable habitat for the species.
Branchinecta lynchi Vernal pool fairy shrimp	FT	--	Occurs in vernal pools. *(Continues on next page)*	**Low**. Two depressional seasonal wetlands in Sewer Alternative 2 and the Project Development Area represent marginally suitable habitat for the species.
Danaus plexippus Monarch butterfly	FC	--	A migratory species that is most prevalent in the Central Valley in summer and early fall. Dependent upon milkweed (*Asclepias* species) plants as their exclusive larval host.	**Present**. Small patches of milkweed plants are present within the study area, and at least one butterfly has been observed within the study area.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle (VELB)	FT	--	Dependent upon elderberry *(Sambucus* species) shrubs as primary host species. Occurs in the Sacramento and northern San Joaquin Valleys up to 500 feet in elevation.	**Habitat Not Present**. The study area is outside of the elevational range of the species.
Lepidurus packardi Vernal pool tadpole shrimp	FE	--	Occurs in vernal pools.	**Habitat Not Present**. None of the seasonal wetlands within the study area have a sufficiently long period of inundation to support the species.
Ambystoma californiense 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 outside of the known range of the species.
Rana boylii Foothill yellow-legged frog – South Sierra DPS	FE	CE	Prefers gravelly or sandy streams with open banks near woodlands.	**Low**. Carson Creek provides suitable habitat for the species, but is on the very edge of its distributional range.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Rana draytonii California red-legged frog	FT	CSC	Breeds in permanent to semi-permanent aquatic habitats including lakes, ponds, marshes, creeks, and other drainages.	**Habitat Not Present**. Carson Creek within the study area does not provide the slow-moving water the species prefers.
Spea hammondii Western spadefoot toad	FPT	CSC	Breeds in vernal pools, seasonal wetlands, and associated swales. Forages and hibernates in adjacent grasslands.	**Habitat Not Present**. None of the seasonal wetlands within the study area have a sufficiently long period of inundation to support the species.
Reptiles				
Actinemys marmorata Northwestern pond turtle	FPT	CSC	Occurs in ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	**High**. Suitable habitat for the species is present in Carson Creek in the western portion of the study area.
Phrynosoma blainvillii Coast (Blainville's) Horned Lizard	--	CSC	Occurs in open areas of sandy soil and low vegetation in grasslands, coniferous forests, woodlands, and chaparral. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills. Typically found below 3,000 feet in elevation.	**Habitat Not Present**. Sandy soils are not present within the study area. .
Birds				
Agelaius tricolor Tricolored blackbird	--	CE, CSC	Colonial nester in cattails, bulrush, or blackberries associated with marsh habitats.	**Low**. Dense vegetation that would provide nesting habitat does not occur within the study area. However, the on-site annual brome grasslands could provide marginally suitable foraging habitat.
Aquila chrysaetos Golden eagle	--	CFP	Forages in open areas including grasslands, savannahs, deserts, and early successional stages of shrub and forest communities. Nests in large trees and cliffs.	**High**. Large, isolated trees within the study area could be used for nesting, and the annual brome grassland is suitable foraging habitat.
Athene cunicularia Burrowing owl	--	CSC	Nests in abandoned ground squirrel burrows associated with open grassland habitats.	**Low**. The study area is on the very edge of the species elevational range and ground squirrel burrows were not observed within the study area. The annual brome

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
				grassland could provide marginally suitable wintering habitat.
Buteo swainsoni Swainson's hawk	--	CT	Nests in large trees, preferably in riparian areas. Forages in fields, cropland, irrigated pasture, and grassland below approximately 600 feet near large riparian corridors.	**Habitat Not Present**. The study area is outside of the elevational range of the species.
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FT	CE	Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, adjacent to slow-moving waterways, backwaters, or seeps.	**Habitat Not Present**. The study area does not support the extensive riparian woodlands the species requires.
Elanus leucurus White-tailed kite	--	CFP	Open grasslands, fields, and meadows are used for foraging. Isolated trees in close proximity to foraging habitat are used for perching and nesting.	**High**. The study area is outside of the nesting range of the species, but the species could occur as a winter migrant or occasional summer forager within the annual brome grasslands.
Haliaeetus leucocephalus Bald eagle	--	CE	Nests in large trees within one mile of lakes, rivers, or larger streams.	**Low**. Suitable foraging habitat does not occur within the study area, but the species could nest in large trees within the study area, and the Project Development Area is within approximately one mile of three lakes/large ponds.
Icteria virens Yellow-breasted chat	--	CSC	The species occupies early-successional riparian habitats with well-developed shrub layer and open canopy along streams, creeks, sloughs, and rivers.	**Moderate**. The arroyo willow riparian scrub along Carson Creek within the Sewer Alternatives represents suitable habitat for the species. However, only 0.1-acre of arroyo willow riparian scrub occurs within the study area. As such, the species is unlikely to nest within the study area.
Lanius ludovicianus Loggerhead shrike	--	CSC	Occurs in open areas with sparse trees, shrubs, and other perches.	**High**. The annual brome grasslands within the study area represent suitable habitat for the species.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Laterallus jamaicensis coturniculus California black rail	--	CT	Nests and forages in salt, brackish, and fresh marshes with abundant vegetative cover.	**Habitat Not Present**. Densely vegetated marshes are not present within the study area.
Strix occidentalis California spotted owl	--	CSC	Breeds and roosts in forests and woodlands with large old trees and snags, high basal areas of trees and snags, dense canopies, multiple canopy layers, and downed woody debris.	**Habitat Not Present**. The study area is outside of the range of the species.
Mammals				
Bassariscus astutus raptor Northern California ringtail	--	FP	Occurs in riparian habitats, forest brush, and shrublands in association with rocky areas. Ringtail is known to nest in rock recesses, hollow trees, logs, snags, and abandoned burrows.	**High**. The arroyo willow riparian scrub and dense oak woodlands along Carson Creek within the Sewer Alternatives portion of the study area provide suitable habitat for the species.
Antrozous pallidus Pallid bat	--	CSC, WBWGH	Roosts in crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods and giant sequoias, bole cavities of oaks, exfoliating bark, deciduous trees in riparian areas, and fruit trees in orchards), bridges, barns, porches, bat boxes, and buildings.	**High**. Suitable roosting habitat for the species is present in tree hollows and under exfoliating bark on trees scattered throughout the study area.
Corynorhinus townsendii Townsend's big-eared bat	--	CSC, WBWGH	Roosts in caves and cave analogues, such as abandoned mines, buildings, bridges, rock crevices and large basal hollows of coast redwoods and giant sequoias. Extremely sensitive to human disturbance.	**High**. Suitable roosting habitat could be present in very large tree cavities within large, decadent trees within the study area.
Lasionycteris noctivagans Silver-haired bat	--	WBWGM	Roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. The silver-haired bat forages in open wooded areas near water features.	**High**. Suitable roosting habitat for the species is present in tree hollows and under exfoliating bark on trees in the vicinity of Carson Creek and the intermittent drainage within the off-site ewer alternatives and Project Development Area portions of the study area.

(Continues on next page)

Table 4.3-3
Special-Status Species with Potential to Occur Within the Study Area

Scientific Name (Common Name)	Federal Status	State Status	Habitat Requirements	Potential for Occurrence
Lasiurus blossevillii Western red bat	--	CSC, WBWG H	The species requires large leaf trees such as cottonwoods, willows, and fruit/nut trees for daytime roosts. Often associated with wooded habitats that are protected from above and below. Often found in association with riparian corridors. Requires open space for foraging.	**Moderate**. The arroyo willow riparian scrub along Carson Creek within the Sewer Alternatives represents suitable habitat for the species. However, only 0.1-acre of arroyo willow riparian scrub occurs within the study area. As such, the species is unlikely to nest within the study area.
Lasiurus cinereus Hoary bat	--	WBWG M	Roosts primarily in foliage of both coniferous and deciduous trees at the edges of clearings.	**High**. Trees scattered throughout the study area provide suitable roosting habitat for the species.

Status Codes:
CC: CDFW Candidate for Listing
CFP: CDFW Fully Protected
CRPR: California Rare Plant Rank
CSC: CDFW Species of Concern
CE: CDFW Endangered
CT: CDFW Threatened
FE: Federally Endangered
FT: Federally Threatened
FC: Federal Candidate for Listing
FPT: Federally Proposed Threatened
WBWG M: Western Bat Working Group Medium Threat Rank
WBWG H: Western Bat Working Group High Threat Rank

Source: Madrone Ecological Consulting, 2024.

- 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; or
- Absent/Habitat Not Present: The study area does not contain suitable habitat for the species, the species was not observed during protocol-level special status plant surveys conducted within the study area, or the study area is outside the known range of the species.

As shown in Table 4.3-3, based on protocol-level special-status plant surveys and literature review (detailed further in this chapter under the Method of Analysis subsection), the study area was determined not to contain habitat for 15 species identified by the CNDDB: Jepson's onion, Stebbins' morning glory, chaparral sedge, Pine Hill ceanothus, Bisbee Peak rush rose, Pine Hill flannelbush, El Dorado bedstraw, Bogg's Lake hedge-hyssop, Ahart's dwarf rush, Legenere, pincushion navarretia, slender Orcutt grass, Sacramento Orcutt grass, Layne's ragwort, and El Dorado County mule ears.

The remaining six special-status plant species were determined to be *absent* from the project study area based on protocol-level surveys: spicate rosinweed, Tuolumne button-celery, Sanford's arrowhead, big-scale balsamroot, Red Hills soaproot, and dwarf downingia.

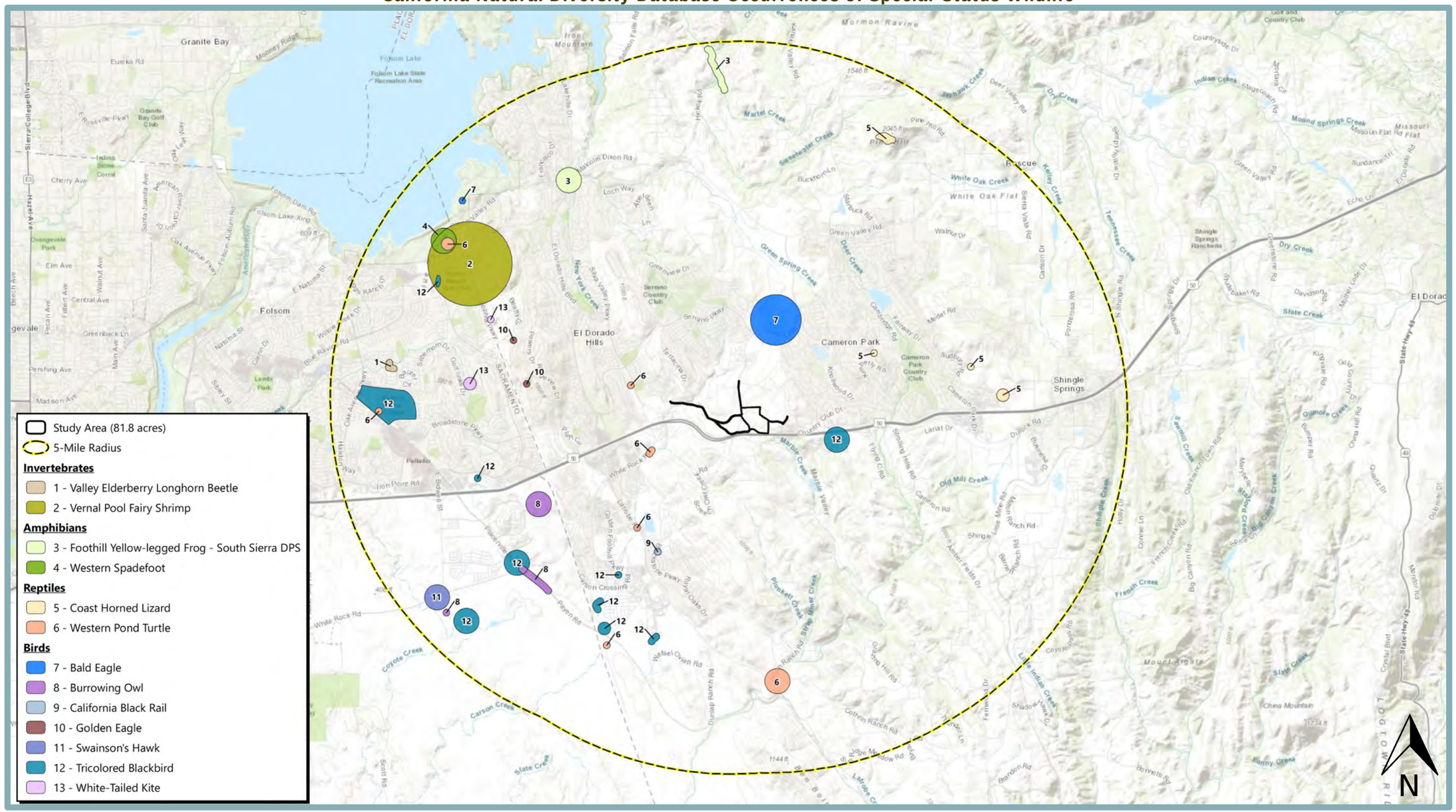
Listed and Special-Status Wildlife Species

According to the records search conducted as part of the BRA, 28 special-status wildlife species have the potential to occur on-site or within five miles of the study area, 13 of which have been recorded within five miles of the study area (see Figure 4.3-4). Based on field observations and literature review (detailed further in this chapter under the Method of Analysis subsection), 18 of the 28 special-status wildlife species were determined to have the potential to occur within the study area. One species, monarch butterfly, was determined to be *present*. Species that are considered to have *high* potential to occur within the study area include Crotch's bumble bee, northwestern pond turtle, golden eagle, white-tailed kite, loggerhead shrike, Northern California ringtail, pallid bat, Townsend's big-eared bat, silver-haired bat, and hoary bat. Species that are considered to have *moderate* potential to occur within the study area include yellow-breasted chat and western red bat.

Species that are considered to have *low* potential to occur within the study area include vernal pool fairy shrimp, foothill yellow-legged frog (FYLF) South Sierra Distinct Population Segment (DPS), tricolored blackbird, burrowing owl, and bald eagle. The study area was determined not to contain habitat for the remaining 10 species identified by the CNDDB: valley elderberry longhorn beetle (VELB), vernal pool tadpole shrimp, California tiger salamander, California red-legged frog, western spadefoot, coast horned lizard, Swainson's hawk, western yellow-billed cuckoo, California black rail, and California spotted owl.

The following discussions provide further details of the 18 special-status wildlife species with the potential to occur within the study area. Table 4.3-3 lists all 28 special-status wildlife species with potential to occur in the vicinity of the study area.

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


Study Area (81.8 acres)
5-Mile Radius
Invertebrates
1 - Valley Elderberry Longhorn Beetle
2 - Vernal Pool Fairy Shrimp
Amphibians
3 - Foothill Yellow-legged Frog - South Sierra DPS
4 - Western Spadefoot
Reptiles
5 - Coast Horned Lizard
6 - Western Pond Turtle
Birds
7 - Bald Eagle
8 - Burrowing Owl
9 - California Black Rail
10 - Golden Eagle
11 - Swainson's Hawk
12 - Tricolored Blackbird
13 - White-Tailed Kite
Granite Bay
Folsom
El Dorado Hills
Cameron Park
Shingle Springs
Folsom Lake
Folsom Lake State Recreation Area
Iron Mountain
Mormon Ravine
Martel Creek
Sweetwater Creek
Jayhawk Creek
Deer Valley Rd
Dry Creek
Indian Creek
Mound Springs Creek
Missouri Flat
Rescue
White Oak Creek
White Oak Flat
Kelley Creek
Green Spring Creek
Deer Creek
Tennessee Creek
Shingle Springs Rancheria
Green Valley Rd
Malcolm Dixon Rd
Folsom Dam Rd
Folsom Lake Xing
Folsom-Auburn Rd
Oak Avenue Pkwy
Natoma St
Blue Ravine Rd
Greenback Ln
Central Ave
Elm Ave
Cherry Ave
Eureka Rd
Mooney Ridge
Sierra College Blvd
Hazel Ave
Granite Bay Golf Club
Indian Stone Corral
Orangevale Park
Lembi Park
Lake Natoma
Folsom Lake
Serrano Country Club
Serrano Parkway
Silva Valley Parkway
New York Creek
Greenview Dr
Carson Creek
Coyote Creek
Slate Creek
Scott Rd
Broadstone Parkway
Palladio
Iron Point Rd
White Rock Rd
Latrobe Rd
Golden Foothill Parkway
Carson Crossing
Wetsel Oyatt Rd
Dunlap Ranch Rd
Cothrin Ranch Rd
Marble Creek
Marble Valley
Old Mill Creek
Shingle Creek
Plum Creek
Silver Fork Creek
Little Indian Creek
Mount Aukum
China Mountain
Bonny Creek
Cameron Park Country Club
Lanat Dr
Durock Rd
Shingle Springs Rancheria
Missouri Flat Rd
Green Valley Rd
Sundance Trl
Echo Ln
Dry Creek
Greenstone Rd
Shadowbake Rd
Davidson Rd
Mother Lode Dr
State Creek
Gymkhana Rd
Quartz Dr
Dolomite Dr
Crystal Blvd
State Hwy-49
Sawmill Creek
Stanford Creek
Big Canyon Creek
French Creek
Bar Canyon Rd
Ponderosa Rd
Carleton Dr
Sierra Vista Dr
Tennessee Creek
Pine Hill Rd
Buckhorn Ln
Starbuck Rd
Walker Dr
Meder Rd
Fairway Dr
Cambridge Rd
Knollwood Dr
Terracina Dr
Sutterhom Dr
Golf Link Dr
Blue Ravine Rd
Oak Avenue Pkwy
Folsom-Auburn Rd
Santa Juanita Ave
American River
Lake Natoma
Folsom Lake
Folsom Lake Xing
Folsom Dam Rd
Folsom-Auburn Rd
Oak Avenue Pkwy
Natoma St
Blue Ravine Rd
Greenback Ln
Central Ave
Elm Ave
Cherry Ave
Eureka Rd
Mooney Ridge
Sierra College Blvd
Hazel Ave
Granite Bay Golf Club
Indian Stone Corral
Orangevale Park
Lembi Park
Folsom Lake State Recreation Area
Iron Mountain
Mormon Ravine
Martel Creek
Sweetwater Creek
Jayhawk Creek
Deer Valley Rd
Dry Creek
Indian Creek
Mound Springs Creek
Missouri Flat
Rescue
White Oak Creek
White Oak Flat
Kelley Creek
Green Spring Creek
Deer Creek
Tennessee Creek
Shingle Springs Rancheria
Green Valley Rd
Malcolm Dixon Rd
Loch Way
Folsom Dam Rd
Folsom Lake Xing
Folsom-Auburn Rd
Oak Avenue Pkwy
Natoma St
Blue Ravine Rd
Greenback Ln
Central Ave
Elm Ave
Cherry Ave
Eureka Rd
Mooney Ridge
Sierra College Blvd
Hazel Ave
Granite Bay Golf Club
Indian Stone Corral
Orangevale Park
Lembi Park
Folsom Lake

Invetebrates

Crotch's Bumble Bee

Crotch's bumble bee (*Bombus crotchii*) is not federally listed but is a candidate for listing under CESA. Crotch's bumble bee 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 utilized by most bumble bees. Generally, bumble bees overwinter in soft, disturbed soil, under leaf litter or other debris, in abandoned holes, or occasionally in abandoned burrows. Some species nest on the surface of the ground in grassy tussocks, or in empty cavities such as hollow logs, dead trees, or under rocks. Queens most likely overwinter in small cavities just below or on the ground surface.

The annual brome grassland within the study area represents suitable habitat for Crotch's bumble bee. The species has not been documented within five miles of the study area in the CNDDB. Based on the above, Crotch's bumble bee has *high* potential for occurrence within the study area.

Vernal Pool Fairy Shrimp

The vernal pool fairy shrimp (*Branchinecta lynchi*) is listed as threatened, pursuant to the FESA. Historically, the range of vernal pool fairy shrimp extended throughout the Central Valley. Vernal pool fairy shrimp populations have been found in several locations throughout California, with habitat extending from Stillwater Plain in Shasta County, through the Central Valley, to Pixley in Tulare County, and along the Central Coast range from northern Solano County to Pinnacles National Monument in San Benito County. Additional populations occur in San Luis Obispo, Santa Barbara, and Riverside counties. The historic and current ranges of vernal pool fairy shrimp are very similar in extent;

however, the remaining populations are more fragmented and isolated than during historical times. The lifecycle of vernal pool fairy shrimp is adapted to seasonally inundated features such as vernal pools, seasonal wetlands, and seasonal wetland swales. Fairy shrimp embryos survive the dry season in cyst form. Cysts "hatch" soon after pools become inundated during the wet season. Fairy shrimp complete their life cycle quickly and feed on small particles of detritus, algae, and bacteria.

The depressional seasonal wetlands within the Sewer Alternative 2 and within the southern portion of the Project Development Area represent marginally suitable habitat for vernal pool fair shrimp. One documented CNDDB occurrence of vernal pool fairy shrimp (Occurrence #168) has been recorded within five miles of the study area, approximately three miles west of the study area near Mormon Island Dam (see Figure 4.3-4). Based on the above, vernal pool fairy shrimp has *low* potential for occurrence within the study area.

Monarch Butterfly

The monarch butterfly (*Danaus plexippus*) is a candidate for listing pursuant to the FESA. Monarch butterfly 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 eight 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.

Milkweed plants throughout the study area represent suitable habitat for monarch butterfly, and at least one monarch butterfly has been observed within the study area. Occurrences of monarch butterfly have not been documented in the CNDDB within five miles of the study area. Based on the above, monarch butterfly is *present* within the study area.

Amphibians

Foothill Yellow-Legged Frog – South Sierra Distinct Population Segment

FYLF (*Rana boylii*) South Sierra DPS is listed as endangered under both the FESA and the CESA. FYLF is a small- to medium-sized frog with unusual rough and granular skin with many tiny tubercules. The species' historic range extends through foothill and mountain streams from the San Gabriel River in Los Angeles County to southern Oregon west of the Sierra-Cascade crest at elevations below 5,000 feet.

FYLF occurs in different habitats depending on life stage, season, and weather conditions. Breeding habitat includes margins of relatively wide and shallow channel sections, habitats that experience reduced flow variation. FYLF tadpoles also breed in water temperatures above 13 degrees Celsius in slower-moving pool habitats. FYLF occurs in a wide variety of vegetation types including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, mixed chaparral and wet meadows. The species is closely associated with streams and is rarely observed far from the water's edge. Breeding stream habitat is typically shallow, rocky and at least partially exposed to direct sunlight.

Two CNDDB occurrences of FYLF have been recorded within five miles of the study area. The nearest occurrence, Occurrence #2, is located approximately 3.4 miles northwest of the study area, near the intersection of Salmon Falls Road and Green Valley Road, and is considered extirpated. The nearest extant occurrence, Occurrence #276, is located 4.2 miles north of the study area along Sweetwater Creek, at about 700 feet in elevation, and was most recently documented at this location in October 2023 (see Figure 4.3-4). Although Carson Creek within the study area provides suitable habitat for FYLF, the study area is located at the very edge of the species' range, and, as such, the potential for FYLF to occur within the study area is *low*.

Reptiles

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.

Carson Creek within the study area provides suitable habitat for northwestern pond turtle. Seven documented CNDDB occurrences of northwestern pond turtle have been recorded within five miles of the study area, the nearest of which, Occurrence #1646, is located 0.6-mile west of the study area in a drainage between ponds west of Silva Valley Parkway (see Figure 4.3-4). Based on the above, northwestern pond turtle has *high* potential for occurrence within the study area.

Birds

Tricolored Blackbird

Tricolored blackbird (*Agelaius tricolor*) populations, which are currently in decline throughout the state, were listed as threatened under the CESA by the California Fish and Game Commission on April 19, 2018. Historically, colonies were established in freshwater marshes dominated by cattails (*Typha* spp.) and bulrushes (*Scirpus* or *Schoenoplectus* spp.). More recently, the species has utilized non-native mustards (*Brassica* spp.), blackberries (*Rubus* spp.), thistles (*Circium* spp.), and mallows (*Malva* spp.) as nesting

substrate. Since the 1980s, the largest colonies have been observed in the San Joaquin Valley in cultivated fields of triticale, which is a hybrid of wheat and rye often grown as livestock fodder. This 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.

Annual brome grassland within the study area provides marginally suitable foraging habitat for tricolored blackbird. Ten documented CNDDB occurrences of tricolored blackbird have been recorded within five miles of the study area, the nearest of which, Occurrence #93, is located approximately 0.6-mile east of the study area at Crazy Horse Campground (see Figure 4.3-4). The site is considered extirpated, but the nearest apparently extant record is Occurrence #452, approximately three miles to the west, just south of Iron Point Road (see Figure 4.3-4). Based on the above, tricolored blackbird has *low* potential for occurrence within the study area.

Golden Eagle

Golden eagle (*Aquila chrysaetos*) is not listed pursuant to either the CESA or FESA; however, the species is categorized as a Species of Special Concern and a Fully Protected Species by the CDFW, and is protected under the federal Bald and Golden Eagle Protection Act. Golden eagle is a very large solitary raptor that feeds on mammals, carrion, and reptiles. The species typically nests in large trees or cliffsides in rolling to mountainous terrain, and forages in large, expansive open grasslands and savannas. Although the species' natural densities are generally believed to be low, they were once relatively common to the open areas of California. Today, golden eagles are rarely observed in the Central Valley. The species typically nests between February and August.

Large, isolated trees within the study area provide potential nesting habitat and the annual brome grassland provides suitable foraging habitat for the species. Two CNDDB occurrences of golden eagle nests have been recorded within five miles of the study area, the nearest of which, Occurrence #321, is located approximately 2.1 miles west of the study area along Via Fiori Road in El Dorado Hills (see Figure 4.3-4). Based on the above, golden eagle has *high* potential for occurrence within the study area.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is not listed pursuant to either the FESA or CESA. 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.

Although ground squirrel burrows were not observed within the study area during the field survey, the annual brome grassland could provide marginally suitable wintering habitat under scattered debris or in culverts. Three documented CNDDB occurrences of burrowing owl have been recorded within five miles of the study area, the nearest of which, Occurrence #1166, is located approximately 2.3 miles southwest of the study area, west of the Sacramento/El Dorado County line (see Figure 4.3-4). Based on the above, burrowing owl has *low* 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.

Although the study area is outside of the nesting range of white-tailed kite, the annual brome grassland throughout the study area represents suitable foraging habitat for the species and, thus, white-tailed kite could occur within the study area as a winter migrant or occasional summer forager. The CNDDB includes two documented occurrences of white-tailed kite within five miles of the study area, the nearest of which, Occurrence #149, is located approximately 2.9 miles west of the study area, west of Sophia Parkway in El Dorado Hills (see Figure 4.3-4). Based on the above, white-tailed kite has *high* potential for occurrence within the study area.

Bald Eagle

Bald eagle (*Haliaeetus leucocephalus*) is listed as endangered under the CESA and is fully protected under State law and the federal Bald and Golden Eagle Protection Act. The species nests in northern California and in the Sierra Nevada mountain range. Bald eagle requires large bodies of water or free-flowing rivers with abundant fish and adjacent snags or other perches. The species nests in large, live trees with open branchwork, most frequently in stands with less than 40 percent canopy, and near a permanent water source.

Large, scattered trees throughout the study area provide marginally suitable nesting habitat for bald eagle. Bald eagle has been recorded in the CNDDB within five miles of the study area, and is regularly documented foraging at Bass Lake and Cameron Park Lake, both of which are within one mile of the study area. The nearest nesting record, Occurrence #358, is located approximately 4.2 miles northwest of the study area along the edge of Folsom Lake (see Figure 4.3-4). Based on the above, bald eagle has *low* potential for occurrence within the study area.

Yellow-Breasted Chat

The yellow-breasted chat (*Icteria virens*) is not listed, pursuant to either the FESA or CESA, but is designated as a CDFW Species of Special Concern. The species is an uncommon summer (breeding) resident in coastal California and in foothills of the Sierra Nevada. Yellow-breasted chat spends the breeding season in dense scrubs along a stream or river and frequent dense, brushy thickets and tangles near water, and thick understory in riparian woodland. In the valley foothill riparian, the species may occur up to about 4,800 feet elevation and up to 6,500 feet east of the Sierra Nevada. Loss and degradation of riparian habitat have caused a marked decline in the breeding population in recent decades in California.

The arroyo willow riparian scrub along Carson Creek within the study area provides suitable habitat for yellow-breasted chat, although the likelihood of the species occurring is low due to the small acreage of habitat within the study area. Yellow-breasted chat has not been documented within five miles of the study area in the CNDDB. Based on the above, yellow-breasted chat has *moderate* 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 shrike 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 grassland within the study area provides suitable habitat for loggerhead shrike. The species has not been documented in the CNDDB within five miles of the study area. Based on the above, loggerhead shrike has *high* potential for occurrence within the study area.

Mammals

Northern California Ringtail

The Northern California ringtail (*Bassariscus astutus*) is not federally or state listed but is considered a CDFW Fully Protected species. The species is nocturnal and occurs in various riparian habitats, forest brush, and shrublands in association with rocky areas. Northern California ringtail is known to nest in rock recesses, hollow trees, logs, snags, and abandoned burrows, and is usually within approximately 0.6-mile of permanent water.

The arroyo willow riparian scrub and the relatively dense oak woodland south of Carson Creek within the study area provides suitable habitat for Northern California ringtail. The species has not been documented in the CNDDB within five miles of the study area. Based on the above, Northern California ringtail 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 two to 20 individuals and are also known to roost alone. 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. Pallid bat forages over open shrub-steppe grasslands, oak savannah grasslands, open Ponderosa pine forests, talus slopes, gravel roads, fruit orchards, and vineyards.

Tree hollows and exfoliating bark on trees throughout the study area represent suitable roosting habitat for pallid bat. Pallid bat has not been documented in the CNDDB within five miles of the study area. Based on the above, pallid bat has *high* potential for occurrence within the study area.

Townsend's Big-Eared Bat

Townsend's big-eared bat (*Corynorhinus townsendii townsendii*) is not federally or State listed; however, the species is a CDFW Species of Special Concern and is classified by the WBWG as a High priority species. Townsend's big-eared bat is a fairly large bat with prominent bilateral nose lumps and large rabbit-like ears. The species occurs throughout the west and ranges from the southern portion of British Columbia south along the Pacific

coast to central Mexico and east into the Great Plains. The species has been reported from a wide variety of habitat types and elevations from sea level to 10,827 feet. Habitats used include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. The species' distribution is strongly associated with the availability of caves and cave-like roosting habitats, including abandoned mines, buildings, bridges, rock crevices, and hollow trees. The species is readily detectable when roosting due to their habit of roosting pendant-like on open surfaces. Townsend's big-eared bat is a moth specialist with over 90 percent of its diet composed of Lepidopterans. Foraging habitat includes edge habitats along streams, as well as near and within a variety of wooded habitats. The species often travels long distances when foraging, and large home ranges have been documented in California.

Large tree cavities in large decadent trees within the study area provide suitable roosting habitat for the Townsend's big-eared bat. In addition, the open areas within the study area provide suitable foraging habitat for this species. The species has not been documented in the CNDDB within five miles of the study area. Based on the above, Townsend's big-eared bat has *high* potential for occurrence within the study area.

Silver-Haired Bat

Silver-haired bat (*Lasionycteris noctivagans*) is not federally or State listed. The species is classified by the WBWG as a Medium priority species. Primarily considered a coastal and montane forest species, the silver-haired bat occurs in more xeric environments during winter and seasonal migrations. The species changes roosts frequently and us multiple roosts within a limited area, indicating that clusters of large trees are necessary. The bat roosts in hollow trees, abandoned woodpecker holes, under sloughing bark, in rock crevices, and occasionally under wood piles. The species tends to forage above the canopy, over open meadows, and in the riparian zone along water courses. Although silver-haired bat is known to eat a wide variety of species, moths appear to be a major portion of dietary prey.

Tree hollows and exfoliating bark on trees throughout the study area provide suitable roosting habitat for silver-haired bat. The species has not been documented in the CNDDB within five miles of the study area. Based on the above, silver-haired bat has *high* potential for occurrence within the study area.

Western Red Bat

Western red bat (*Lasiurus blossevillii*) is not federally or State listed. The species is a CDFW Species of Special Concern and is classified by the WBWG as a High priority species. Western red bat is typically solitary, roosting primarily in the foliage of trees or shrubs. Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. The species may associate with intact riparian habitat, particularly willows, cottonwoods, and sycamores. Roost sites are generally hidden from all directions except from below, allowing the bat to drop downward for flight.

The arroyo willow riparian scrub along Carson Creek within the study area provides suitable roosting habitat for this species, although the likelihood of the species occurring is low due to the small acreage of habitat within the study area. The species has not been

documented in the CNDDB within five miles of the study area. Based on the above, western red bat has *moderate* potential for occurrence within the study area.

Hoary Bat

The hoary bat (*Lasiurus cinereus*) is not federally or State listed. The species is classified by the WBWG as a Medium priority species. Hoary bat is considered to be one of the most widespread of all American bats, with a range extending from Canada to central Chile and Argentina, as well as Hawaii. Hoary bats are solitary and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches at the edge of a clearing. The species is primarily crepuscular or nocturnal and requires open areas to hunt its preferred prey item, moths. The hoary bat is considered a forest/woodland species, and in California they are often associated with undisturbed riparian or stream corridors.

Trees within the study area represent suitable roosting habitat for hoary bat. The species has not been documented in the CNDDB within five miles of the study area. Based on the above, hoary bat has *high* potential for occurrence within the study area.

Oak Resources

As discussed further in the Methods of Analysis section of this chapter, in accordance with El Dorado County's Oak Resources Management Plan (ORMP), as part of the ORTR prepared for the proposed project, Madrone conducted a tree inventory within the study area of all native oak trees greater than 24 inches in diameter at breast height (DBH) within oak woodlands, and all native oak trees greater than six inches DBH outside of the oak woodlands. In addition, because the ORMP specifies different mitigation requirements for heritage trees, or trees greater than 36 inches DBH, Madrone included such trees in the tree inventory. The results of the tree inventory are summarized in Table 4.3-4, below.

Table 4.3-4
Oak Trees Inventoried within the Study Area

Location	Condition	Size (inches)	Number of Trees (DBH)			
			Blue Oak	Interior Live Oak	Valley Oak	Total
Within Oak Woodlands	Fair to Good	24 to 35 DBH	4 (114.6)	16 (468.1)	1 (24.8)	21 (607.5)
		≥ 36 DBH	--	24 (1,148.9)	2 (78.3)	26 (1,227.2)
	Poor	24 to 35 DBH	--	6 (170.7)	--	6 (170.7)
		≥ 36 DBH	--	2 (81.7)	--	2 (81.7)
Subtotal						55 (2,079.1)
Outside of Oak Woodlands	Fair to Good	6 to 35 DBH	3 (71.0)	--	6 (165.6)	9 (236.6)
		≥ 36 DBH	2 (83.8)	--	2 (79.7)	4 (163.5)
	Poor	6 to 35 DBH	--	2 (50.0)	1 (15.7)	3 (65.7)
		≥ 36 DBH	--	--	1 (37.1)	1 (37.1)
Subtotal						17 (502.9)
Total			**9 (269.4)**	**50 (1,911.4)**	**13 (401.2)**	**72 (2,582.0)**

Source: Madrone Ecological Consulting, 2024.

Oak resources inventoried within the study area include 6.2 acres of oak woodlands. As shown in Table 4.3-4, the study area contains a total of 17 individual native oak trees greater than six inches DBH outside of the oak woodlands (five of which are greater than 36 inches DBH), and 55

native oaks greater than 24 inches DBH within the oak woodlands (28 of which are greater than 36 inches DBH).

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 project 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 Code of Federal Regulations [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. In addition, FESA prohibits malicious damage or destruction of listed plant species on federal lands or in association with federal actions, and the removal, cutting, digging up, damage, or destruction of listed plant species in violation of State law. FESA does not afford any protections to federally listed plant species that are not also included on a State endangered species list on private lands without associated federal action.

Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of State and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code (CFGC) states, "It is unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the code or any regulation adopted pursuant thereto."

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (as amended) provides for the protection of bald eagle and golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit [16 U.S. Code (USC) 668(a); 50 CFR 22]. The USFWS may authorize take of bald eagles and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided (50 CFR 22.26).

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 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 United States include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR Section 328.3[b]).

Furthermore, jurisdictional waters of the 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]).

In addition to discharge of dredged or fill material into waters of the U.S. under Section 404, the CWA regulates municipal and industrial discharges to surface waters of the U.S through the National Pollutant Discharge Elimination System (NPDES) permit system, which is discussed in detail in Chapter 4.7, Hydrology and Water Quality, of this EIR.

State Regulations

The following are the State environmental laws and policies relevant to biological resources.

California Department of Fish and Wildlife

CDFW administers a number of laws and programs designed to protect fish and wildlife resources under the CFGC, such as CESA (CFGC Section 2050, et seq.), Fully Protected Species (CFGC Section 3511) and the Lake or Streambed Alteration Agreement (LSAA) Program (CFGC Sections 1600 to 1616). Such regulations are summarized in the following sections.

California Endangered Species Act

The State of California enacted CESA in 1984. CESA is similar to the FESA but pertains to State-listed endangered and threatened species. 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.

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. CESA 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, 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 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.

Regional Water Quality 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 Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE's 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, NPDES permits, Section 401 WQCs, or other approvals.

Local Regulations

The following are the local environmental laws and policies relevant to biological resources.

El Dorado County General Plan

The El Dorado County General Plan biological resource policies that are applicable to the proposed project are presented below:

Goal 7.3 WATER QUALITY AND QUANTITY:

Conserve, enhance, and manage water resources and protect their quality from degradation.

Objective 7.3.3 WETLANDS: Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.

Policy 7.3.3.1 For projects that would result in the discharge of material to or that may affect the function and value of river, stream, lake, pond, or wetland features, the application shall include a delineation of all such features. For wetlands, the delineation shall be conducted using the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual.

Policy 7.3.3.4 The Zoning Ordinance shall be amended to provide buffers and special setbacks for the protection of riparian areas and wetlands. The County shall encourage the incorporation of protected areas into conservation easements or natural resource protection areas.

Exceptions to riparian and wetland buffer and setback requirements shall be provided to permit necessary road and bridge repair and construction, trail construction, and other recreational access structures such as docks and piers, or where such buffers deny reasonable use of the property, but only when appropriate mitigation measures and Best Management Practices are incorporated into the project. Exceptions shall also be provided for horticultural and grazing activities on agriculturally zoned lands that utilize “best management

practices (BMPs)" as recommended by the County Agricultural Commission and adopted by the Board of Supervisors.

Until standards for buffers and special setbacks are established in the Zoning Ordinance, the County shall apply a minimum setback of 100 feet from all perennial streams, rivers, lakes, and 50 feet from intermittent streams and wetlands. These interim standards may be modified in a particular instance if more detailed information relating to slope, soil stability, vegetation, habitat, or other site- or project-specific conditions supplied as part of the review for a specific project demonstrates that a different setback is necessary or would be sufficient to protect the particular riparian area at issue.

For projects where the County allows an exception to wetland and riparian buffers, development in or immediately adjacent to such features shall be planned so that impacts on the resources are minimized. If avoidance and minimization are not feasible, the County shall make findings, based on documentation provided by the project proponent, that avoidance and minimization are infeasible.

Policy 7.3.3.5 Rivers, streams, lakes and ponds, and wetlands shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site while disturbance to the resource is avoided or minimized and fragmentation is limited.

Goal 7.4 WILDLIFE AND VEGETATION RESOURCES:

Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.

Objective 7.4.1 PINE HILL RARE PLANT SPECIES: The County shall protect Pine Hill rare plant species and their habitats consisted with federal and State laws.

Policy 7.4.1.1 The County shall continue to provide for the permanent protection of the eight sensitive plant species known as the Pine Hill endemics and their habitat through the establishment and management of ecological preserves consistent with County Code Chapter 130.71 and the USFWS's Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan (USFWS 2002).

Policy 7.4.1.2 Private land for Pine Hill rare plant preserve sites will be purchased only from willing sellers.

Policy 7.4.1.3 Limit land uses within established Pine Hill rare plant preserve areas to activities deemed compatible. Such uses may include passive recreation, research and scientific study, and education. In conjunction with use as passive recreational areas, develop a rare plant educational and interpretive program.

Objective 7.4.4 FOREST, OAK WOODLAND, AND TREE RESOURCES: Protect and conserve forest, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

Policy 7.4.4.2 Through the review of discretionary projects, the County, consistent with any limitations imposed by State law, shall encourage the conservation protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.

Policy 7.4.4.3 Encourage the clustering of development to retain the largest contiguous areas of forests and oak woodlands possible.

Policy 7.4.4.4 For all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees, the County shall require mitigation as outlined in the El Dorado County Oak Resources Management Plan (ORMP). The ORMP functions as the oak resources component of the County's

biological resources mitigation program, identified in Policy 7.4.2.8.

The ORMP identifies standards for oak woodland and native oak tree impact determination, mechanisms to mitigate oak woodland and native oak tree impacts, technical report submittal requirements, minimum qualifications for technical report preparation, mitigation monitoring and reporting requirements, and projects or actions that are exempt from this policy. The ORMP also establishes an in-lieu fee payment option for impacts to oak woodlands and native oak trees, identifies Priority Conservation Areas (PC As) where oak woodland conservation efforts may be focused, and outlines minimum standards for identification of oak woodland conservation areas outside the PCAs. Requirements for monitoring and maintenance of conserved oak woodland areas and identification of allowable uses within conserved oak woodland areas are also included in the ORMP.

Bass Lake Hills Specific Plan

The BLHSP was adopted November 7, 1995, as a coordinated planning program consistent with the El Dorado County General Plan for the development of 1,196 acres located in eastern El Dorado County.

Section 7.4 of the BLHSP outlines standards related to the preservation of wetlands, intermittent streams, and drainages within the BLHSP area. For example, as required by Section 7.4(1), development is required to include a conservation easement extending from wetlands identified in Figure 1-5 of the BLHSP. In addition, Section 7.5 of the BLHSP outlines requirements related to woodland habitat and oak trees, such as requiring the preparation of an arborist report and requiring the conservation of such resources.

El Dorado County Code

The ordinances established in the El Dorado County Code related to biological resources that are applicable to the proposed project are presented below.

El Dorado County Zoning Ordinance, Protection of Wetlands and Sensitive Riparian Habitat

The El Dorado County Zoning Ordinance Site Planning and Project Design Standards for setback requirements (Section 130.30.050) establishes standards for avoidance and minimization of impacts to wetlands and sensitive riparian habitat. This section of the Ordinance applies to discretionary projects adjacent to perennial streams, intermittent streams, wetlands, or any sensitive riparian habitat within El Dorado County. The Ordinance requires new development to

avoid or minimize impacts to these habitat types. If the habitats cannot be avoided, the County requires an assessment that establishes appropriate buffers to reduce impacts to a less than significant level and mitigation consistent with state or federal permit requirements. The County has established standardized setbacks of 25 feet from any intermittent stream, wetland or sensitive riparian habitat, or a distance of 50 feet from any perennial lake, river or stream. Storm drain, irrigation outflow structures, and bridges are permitted as long as they are approved by the County as part of the development process.

El Dorado County Zoning Ordinance, Oak Resources Conservation

Chapter 130.39 of the El Dorado County Zoning Ordinance requires mitigation for impacts to native oak trees in all portions of unincorporated El Dorado County below 4,000 feet in elevation. The Chapter requires documentation of all oak woodlands, individual native oak trees, and heritage native oak trees (collectively, oak resources) on a site if any oak impacts are proposed on that site. Furthermore, an Oak Resources Technical Report must be prepared as stipulated in the Chapter. Mitigation for impacts to oak resources may be accomplished through payment of an in-lieu fee to the Oak Woodland Conservation Fund, conservation using a deed restriction or conservation easement, and/or replacement planting.

4.3.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed 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, and the County's General Plan, a significant impact would occur if the proposed project would result in 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 Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan (see Chapter 4.15, Effects Not Found to be Significant).

As noted above, issues related to whether the proposed project would result in the following impact is discussed in Chapter 4.15, Effects Not Found To Be Significant, of this EIR:

- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan (see Chapter 4.15, Effects Not Found to be Significant).

Impacts to Oak Resources

In accordance with the El Dorado County Oak Resources Conservation Ordinance, impacts to oak resources are calculated differently for oak woodland areas and non-oak woodland areas. Within mapped oak woodlands, impacts are calculated based on impact to oak canopy, plus impacts to any individual native oak trees within the woodland that are 36 inches or greater DBH. Outside of mapped oak woodlands, impacts are calculated based on impacts to each native oak tree that is six inches or greater DBH. Mitigation is only required for trees that are in Fair or better condition. In addition, it is noted that trees are considered permanently impacted if the trunk falls within either the permanent or temporary impact boundary, or if greater than approximately 30 percent of the tree's dripline area would be permanently impacted.

Method of Analysis

The information contained in the analysis is primarily based on the BRA and the ORTR prepared by Madrone. It is noted that the analysis presented herein assumed that construction within the Project Development Area would include construction of the proposed off-site water, sewer, and natural gas lines, bike path, and pedestrian bridge improvements. It should be noted that by assuming concurrent construction of the off-site improvements, the conclusions presented herein represent a conservative analysis, as construction of the off-site sewer pipeline may be delayed until construction of the Program Study Area due to the option for the project applicant to use an on-site septic system in the interim.

Biological Resource Assessment

The analyses within the BRA is based on a literature review and field surveys of the study area, which are detailed further below.

Literature Review

A list of special-status plant and wildlife species with potential to occur within the study area was developed as part of the BRA through queries of the following databases:

a) CNDDB query of the study area and all areas within five miles of the study area (see Figure 4.3-3 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 "Clarksville, California" U.S. Geological Survey topographic quadrangle and the eight surrounding quadrangles (included as Attachment C of the BRA); and
d) WBWG Species Matrix.

In addition, any special-status species that are known to occur in the project region, but that were not identified in any of the above database searches, were also analyzed for their potential to occur within the study area.

Field Surveys

Madrone conducted field surveys of various portions of the study area on April 13, 2022, September 27, 2023, and October 6, 2023 to assess the suitability of habitats on-site to support special-status species and to conduct protocol-level surveys. Meandering pedestrian surveys

were performed on foot throughout the study area. Vegetation communities were classified in accordance with The Manual of California Vegetation, Second Edition, and plant taxonomy was based on the nomenclature in the *Jepson eFlora*. A list of all wildlife species observed during the field surveys is included as Attachment D to the BRA (see Appendix E of this EIR).

Protocol-level special-status plant surveys of the entire study area were completed on several dates in 2022, 2023, and 2024. 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. The results of the protocol-level surveys described above were incorporated into and included as Attachment E to the BRA (Special-Status Plant Survey Report for Town & Country Village El Dorado).

An aquatic resources delineation of the entire study area was conducted in accordance with USACE protocol on September 27 and October 6, 2023; the results of the aquatic resources delineation were submitted to the USACE for verification. The USACE conducted a site visit on May 29, 2024 to view on-site aquatic features and determine the accuracy of the aquatic resources delineation. In response to USACE feedback, Madrone made minor modifications to the acreages of aquatic resources, which are presented in the BRA.

Oak Resources Technical Report

As part of the ORTR, Madrone conducted an oak resources inventory throughout the study area on September 27 and October 6, 2023, as required by El Dorado County's ORMP. The oak resources inventory including native oak trees within the study area or with driplines overhanging the study area that meet the following criteria:

- All native oak trees outside of mapped oak woodlands that have a single trunk six inches DBH or greater or multiple trunks with an aggregate of 10 inches DBH or greater; and
- All native oak trees within the mapped oak woodlands that are 24 inches DBH or greater.

For each tree inventoried, Madrone nailed aluminum tags with a unique identification number into the trunk (for those that did not already have a tag), recorded the tree identification number, tree species, DBH, approximate dripline radius, and general health and structure. The location of each tree was recorded with a GPS unit capable of sub-meter accuracy. It is noted that because oak resources do not occur within the Program Study Area portion of the project site, the analysis of the ORTR only concerns the remaining portions of the study area.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to biological resources is based on implementation of the proposed 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*.

The following discussion applies to the potential for buildout of both portions of the project site to impact special-status plants. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, it was determined that special-status plants are not likely to occur based on habitat suitability, proximity of recent occurrences, species' geographic ranges, and field observations.[9]

Project Development Area and Project Buildout

As detailed 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, spicate rosinweed, Red Hills soaproot, dwarf downingia, Tuolumne button-celery, and Sanford's arrowhead. The protocol-level special-status plant surveys conducted throughout the study area during 2022, 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.

Based on the above, should construction commence during or following the spring of 2025, without additional field surveys, the proposed 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 measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-1 *If construction has not commenced prior to the first day of spring 2026, a new round of special-status plant surveys shall be conducted in on- and off-site areas proposed for disturbance, prior to the commencement of construction.*

The surveys shall be conducted in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants, the CNPS Botanical Survey Guidelines of the California Native Plant Society, and Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. The survey results shall be submitted to the El Dorado County Planning and Building Department

[9] SWCA Environmental Consultants. *Biological Resources Evaluation for the Bass Lake North Bike Trail Project, El Dorado Hills, El Dorado County, California* [pg. 10]. October 2022.

prior to the commencement of construction activities. If special-status plant species are not found, further mitigation shall not be required.

If special-status plants are found within the proposed impact area, specific mitigation measures shall be determined based on the plant species affected, physical conditions at the impact site, and conditions at a proposed mitigation site, if applicable. Options for mitigating impacts to annual plants, such as dwarf dowingia, could include avoidance, seed collection and planting at a mitigation site, or collection of seed-bearing soil to be spread at a mitigation site. Options for mitigating impacts to perennial plants, such as Sanford's arrowhead or big-scale balsamroot, include avoidance, transplantation of plant to a mitigation site, propagation using cuttings to be planted at a mitigation site, or seed collection and planting at a mitigation site.

If special-status plants are impacted, a qualified biologist shall prepare an avoidance and mitigation plan detailing protection and avoidance measures, transplantation procedures, success criteria, and long-term monitoring protocols. The plan shall be reviewed and approved by the El Dorado County Planning and Building Department and shall ensure that mitigation for the impacts to rare plants shall result in no net loss of individual plants after a five-year monitoring period. In addition, a pre-construction worker awareness training shall be conducted to alert workers to the presence of and protections for special-status plants.

If plants listed under the Federal Endangered Species Act or the California Endangered Species Act are located within the project impact area and those plants cannot be avoided, the project proponent shall coordinate with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) (as appropriate) for issuance of an Incidental Take Permit (ITP) and shall implement similar mitigation measures as outline above and ultimately approved by the appropriate agency.

4.3-2 Impacts to Crotch's bumble bee either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As the footprints of the Project Development Area and Program Study Area are contiguous and feature similar habitats, the potential for impacts to Crotch's bumble bee from developing either portion of the project site would be similar. Thus, the following discussion applies to the potential for buildout of both portions of the project site to impact Crotch's bumble bee. The discussion is also applicable to the off-site water line alignment within the approved Bass Lake North Bike Trail.

Project Development Area and Project Buildout

As discussed above, the annual brome grassland within the study area represents suitable habitat for Crotch's bumble bee. The BRA concluded that removal of such habitat could result in a substantial adverse effect to Crotch's bumble bee.

In addition, although Crotch's bumble bee is not currently formally listed, the species was designated as a candidate for listing under CESA in 2019. Although a decision on the listing has not yet been published, a decision could be published by the time that construction begins on the proposed project.

Based on the above, the proposed 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.

Project Development Area and Project Buildout

4.3-2 *If, at the time of project implementation, Crotch's bumble bee is not designated as a California Endangered Species Act (CESA) candidate or CESA listed, mitigation is not required. However, if the species is a CESA candidate or CESA listed or is otherwise considered to be a special-status species, the following mitigation shall be required.*

If feasible, initial ground-disturbing activities associated with development of the project 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 bumble bee. If completing all initial ground-disturbing activities between September 1 and March 31 is not feasible, 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 bee 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 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 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 bumble bees are observed, watch any 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 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 bumble bees. The survey report shall be submitted to the El Dorado County Planning and Building Department prior to the commencement of construction activities.

If bumble bees are not located during the preconstruction survey or the bumble bees located are definitively identified as a common species (i.e., not special-status species), then further mitigation or coordination with the California Department of Fish and Wildlife (CDFW) is not required.

If any sign(s) of a bumble bee nest is observed, and if the species present cannot be established as a common bumble bee, then

construction shall not commence until either (1) the bumble bees present are positively identified as common (i.e., not a special-status species), or (2) the completion of coordination with CDFW to identify appropriate mitigation measures, which may include, but not be limited to, waiting until the colony active season ends, establishment of nest buffers, or obtaining an Incidental Take Permit (ITP) from CDFW.

If Crotch's bumble bees are located, and after coordination with CDFW take of Crotch's bumble bees cannot be avoided, the project applicant shall obtain an ITP from CDFW, and the applicant shall implement all conditions identified in the ITP. Mitigation required by the ITP may include, but not be limited to, the project applicant 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 project site that will remain appropriate habitat, worker awareness training, and/or other measures specified by CDFW.

4.3-3 Impacts to vernal pool fairy shrimp either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout, to result in impacts to vernal pool fairy shrimp. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, it was determined that vernal pool fairy shrimp do not have the potential to occur within the seasonal wetlands located in the alignment.[10]

Project Development Area

The Project Development Area portion of the project site contains one depressional seasonal wetland comprising approximately 0.006-acre of suitable habitat for vernal pool fairy shrimp that would be permanently impacted by the proposed project. Sewer Alternative 1 does not contain vernal pool fairy shrimp habitat, and, thus, potential development of such would not result in any additional impacts to the species. However, Sewer Alternative 2 contains an approximately 0.007-acre depressional seasonal wetland that is suitable habitat for vernal pool fairy shrimp and could be permanently impacted. The proposed development of the on-site depressional seasonal wetlands could result in adverse impacts to vernal pool fairy shrimp.

Project Buildout

The BRA determined that the Program Study Area does not contain wetlands that would be suitable habitat for vernal pool fairy shrimp. Therefore, full project buildout

[10] SWCA Environmental Consultants. *Biological Resources Evaluation for the Bass Lake North Bike Trail Project, El Dorado Hills, El Dorado County, California* [pg. E-5]. October 2022.

would not result in any additional impacts to vernal pool fairy shrimp beyond those associated with development of the Project Development Area, as discussed above.

Conclusion

Based on the above, while the Program Study Area does not contain wetlands that would be suitable habitat for vernal pool fairy shrimp, the Project Development Area and Sewer Alternative 2 would have the potential to permanently impact between approximately 0.006 and 0.013-acre of depressional seasonal wetland that represent suitable habitat for vernal pool fairy shrimp. Therefore, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a on a wildlife species (vernal pool fairy shrimp) 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.

Project Development Area (and Sewer Alternative 2)

4.3-3 *The project applicant may choose to conduct surveys for vernal pool fairy shrimp prior to initiation of any ground disturbance activities within the Project Development Area and/or Sewer Alternative 2; any such surveys shall be conducted in accordance with the Survey Guidelines for the Listed Large Branchiopods (USFWS 2017). If vernal pool fairy shrimp are not found during protocol-level wet and dry season surveys, further mitigation shall not be required. If protocol-level surveys of the on-site depressional seasonal wetlands are not conducted, or if vernal pool fairy shrimp are found during protocol-level wet- or dry-season surveys of the features, then the project proponent or the USACE (depending on the regulatory mechanism) shall consult with the USFWS regarding impacts to vernal pool fairy shrimp associated with the project. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.*

The project proponent shall comply with any conditions of the appropriate take authorization from the USFWS prior to County approval of any permit authorizing construction. The conditions in this take authorization may include but will 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.

Program Study Area

None required.

4.3-4 Impacts to monarch butterfly either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As the footprints of the Project Development Area and Program Study Area are contiguous and feature similar habitats, the potential for impacts to monarch butterfly from developing either portion of the project site would be similar. Thus, the following discussion applies to the potential for buildout of both portions of the project site to impact monarch butterfly. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, it was determined that the alignment contains milkweed plants and the species was observed during the August 12, 2022 field survey.[11] Therefore, the below mitigation measure required for the Project Development Area and Project Buildout would similarly be required should the off-site water line be placed within the Bass Lake North Bike Trail alignment.

Project Development Area and Project Buildout

As discussed above, milkweed plants located within the annual brome grassland throughout the study area represent suitable habitat for monarch butterfly, and at least one monarch butterfly has been observed within the study area. The BRA concluded that removal of the on-site milkweed plants could result in a substantial adverse effect to monarch butterfly.

It is noted that although a federal determination dated December 17, 2020 determined that monarch butterfly warranted listing as an endangered or threatened species under the FESA, the listing was precluded by higher priority listing actions. Although a decision on the listing has not yet been published, a decision could be published by the time that construction begins on the proposed project.

Based on the above, the proposed 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.

Project Development Area and Project Buildout

4.3-4 *If, at the time of project implementation, monarch butterfly is not designated as a federal Endangered Species Act (FESA) candidate or FESA listed, mitigation is not required. However, if the species is a*

[11] SWCA Environmental Consultants. *Biological Resources Evaluation for the Bass Lake North Bike Trail Project, El Dorado Hills, El Dorado County, California* [pg. E-6]. October 2022.

FESA candidate or FESA listed or is otherwise considered to be a special-status species, the following mitigation shall be required.

If construction occurs within annual brome grassland in on- and off-site improvement areas during the time when milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late September), a pre-construction survey shall be conducted by a qualified biologist no earlier than 15 days prior to construction within the proposed impact area and a 50-foot buffer in accessible areas. The biologist shall comprehensively search the survey area for milkweed plants, and all milkweed plants found shall be surveyed for monarch eggs, larvae (i.e., caterpillars), and chrysalises. Additionally, other plants immediately adjacent to milkweed plants shall also be searched for chrysalises. If eggs, caterpillars, or chrysalises are not detected, additional mitigation measures are not necessary. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.

If eggs, caterpillars or chrysalises are found, the plants shall be avoided with a 50-foot buffer until metamorphosis is completed and adult butterflies emerge and voluntarily 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. The alternative location must be a minimum of 50 feet outside of the impact area and must 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 will 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 Impacts to foothill yellow-legged frog either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout, to result in impacts to FYLF. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, it was determined that FYLF does not have the potential to occur due to the lack of perennial stream habitat within the alignment.[12]

[12] SWCA Environmental Consultants. *Biological Resources Evaluation for the Bass Lake North Bike Trail Project, El Dorado Hills, El Dorado County, California* [pg. E-4]. October 2022.

Project Development Area

Although the majority of the Project Development Area does not contain suitable habitat for FYLF, the BRA determined that Carson Creek in the western portion of the off-site sewer alternative represents suitable habitat for the species. The proposed project would not disturb the creek itself. However, individual frogs could be killed if they are present in the construction area adjacent to Carson Creek. Therefore, the proposed project could substantially adversely affect FYLF if the off-site sewer alternative is implemented.

Project Buildout

The Program Study Area does not contain any additional suitable habitat for FYLF. Therefore, full project buildout would not result in any additional impacts to FYLF beyond those associated with development of the Project Development Area, as discussed above.

Conclusion

Based on the above, if the off-site sewer alternative is implemented, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (FYLF) 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 by requiring surveying, and if necessary, protection of FYLF prior to installation of the off-site sewer pipe within the Carson Creek vicinity.

Off-Site Sewer Pipe Alignments Only

4.3-5 *Prior to initiation of ground disturbance activities within 100 feet of Carson Creek, associated with the off-site sewer pipe, the following measures shall be taken to mitigate potential impacts to foothill yellow-legged frog (FYLF):*

- *As part of the CWA Section 404 USACE permitting for the project, the USACE will conduct formal Endangered Species Act consultation with the USFWS on potential impacts to federally-listed species or species that are proposed for listing; this may include FYLF.[13] If the USACE consults with USFWS on FYLF, the project applicant shall prepare a Biological Assessment, which will include details on potential impacts and mitigation for FYLF, to be submitted to the USACE and the USFWS.*
- *If take of FYLF is determined to be likely, the project applicant shall submit an application for an CDFW Code Section 2081 Incidental Take Permit.*

[13] The USACE may choose not to consult with USFWS on FYLF as direct impacts to USACE jurisdictional FYLF habitat are not proposed; impacts would only be indirect.

- *If it is determined that take of FYLF is likely to occur, the project applicant shall abide by mitigation measures developed during the course of the Endangered Species Act consultation with the USFWS and CDFW. These mitigation measures could include, but are not limited to, seasonal work restrictions for initial ground disturbance, pre-construction surveys by a qualified biologist, the installation of wildlife exclusion fencing, biological monitoring, and worker environmental awareness training. If it is determined that take of FYLF is likely to occur, additional measures could include preservation, restoration, or enhancement of habitat on- or off-site, 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 and CDFW.*

  The mitigation measures listed below may be implemented if take of FYLF is likely to occur. The mitigation measures listed below may differ from mitigation measures included in a USFWS Biological Opinion or a CDFW Incidental Take Permit. If that occurs, the measures in the USFWS Biological Opinion and CDFW Incidental Take Permit take precedence.

  - *The project proponent shall develop a Pre-Construction Survey Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities with 100 feet of Carson Creek. The Plan shall include what life-stage(s) shall be surveyed for, survey method(s), and timing of survey(s). The Plan shall provide justification for timing and methodology of survey design (e.g., watershed characteristics, regional snow pack, timing and rate of spring runoff, day length, average ambient air and water temperatures, local and seasonal conditions). For sites with suitable breeding habitat, two consecutive seasons of negative egg mass/larval surveys are recommended to support a negative finding.*
  - *Within 3-5 days prior to entering or working within 100-feet of Carson Creek, a USFWS and CDFW-approved biologist shall perform a pre-construction survey, as specified in the Pre-Construction Survey Plan, within 500-foot buffer zone upstream and downstream of the construction area (if permitted by adjacent land owners). The survey shall include a description of any standing or flowing water. Permittee shall provide Pre-Construction Survey notes and observations to the USFWS and CDFW prior to commencing Covered Activities.*
  - *The project proponent shall develop a Relocation Plan for FYLF and submit it to the USFWS and CDFW for approval prior to ground-disturbing activities within 100 feet of Carson Creek. The Relocation Plan shall include*

what life stage(s) will be relocated (e.g., adults or egg masses) and specific protocols for each life stage. The Relocation Plan shall quantify the amount, location, and quality of suitable receiving habitat (e.g., breeding and dispersal habitat). The Relocation Plan shall include capture and handling methods specific to each life stage.

- *The project proponent shall ensure that Covered Activities, involving construction and heavy equipment use (such as excavation, grading, and contouring), that are conducted in streams, ponds, and riparian areas are limited to the period from May 1 to October 15 of each year (Dry Season). Any work outside of the Dry Season shall be subject to approval of the USFWS and CDFW.*
- *Prior to the start of construction within 100 feet of Carson Creek, high visibility orange fencing shall be installed around approved work areas. The fencing shall remain in place while construction activities are ongoing and shall be regularly inspected and fully maintained at all times.*
- *The project proponent shall develop a Water Diversion Plan for FYLF and submit it to CDFW for approval prior to any in-stream activities. The Water Diversion Plan shall contain detailed descriptions of the water intake screening (e.g., screen material, size, cleaning method, etc.), the duration of the water diversion, how the project proponent will ensure that aquatic life will be maintained or relocated from the dewatered area, diversion materials (unacceptable materials that are deleterious to fish and wildlife include particle board, plastic sheeting, bentonite, pressure-treated lumber, creosote, concrete, or asphalt), and monitoring methods for the diversion.*

- *If it is determined that take of FYLF is unlikely to occur, the Applicant shall conduct a pre-construction Visual Encounter Survey (VES) survey for the species within 15 days prior to initiation of ground disturbance within 100 feet of Carson Creek. The survey shall be conducted in accordance with the Peek et al (2017) Visual encounter survey protocol for Rana boylii in lotic environments, but only implement the life-stage survey(s) that are appropriate for the time of year of the survey (which will be based on when construction commences). If survey results are negative, then no further mitigation will be required. If FYLF are found during the survey, then take should be considered likely to occur, and consultation with USFWS and CDFW as outlined above shall occur. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.*

4.3-6 Impacts to northwestern pond turtle either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout, to result in impacts to northwestern pond turtle. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, it was determined that northwestern pond turtle is unlikely to occur within the alignment, as it does not contain suitable freshwater habitats to support the species.[14]

Project Development Area

The portion of the off-site sewer alternative footprint that overlaps with Carson Creek provides suitable aquatic habitat for northwestern pond turtle. In addition, the adjacent oak woodlands and arroyo willow riparian scrub within 150 feet of Carson Creek provide potential movement habitat. Although Carson Creek would not be directly impacted by the proposed project, the oak woodlands and arroyo willow riparian scrub adjacent to Carson Creek would be temporarily or permanently disturbed during project construction. In the event that northwestern pond turtles or their nests are present in such areas during construction activities, individual turtles could be injured or killed, or nests could be destroyed.

If the off-site sewer alternative is implemented, approximately 0.020-acre would be temporarily disturbed. In addition, approximately 0.13-acre of northwestern pond turtle movement habitat within 150 feet of Carson Creek would be permanently impacted by buildout of the off-site sewer alternative, and approximately 0.15-acre would be temporarily disturbed.

Project Buildout

The Program Study Area does not contain any additional suitable habitat for northwestern pond turtle. Therefore, full project buildout would not result in any additional impacts to northwestern pond turtle beyond those associated with development of the Project Development Area, as discussed above.

Conclusion

Based on the above, if the off-site sewer alternative is implemented, the proposed 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.

[14] SWCA Environmental Consultants. *Biological Resources Evaluation for the Bass Lake North Bike Trail Project, El Dorado Hills, El Dorado County, California* [pg. E-7]. October 2022.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level by requiring surveying, and if necessary, protection of northwestern pond turtle prior to installation of the off-site sewer pipe within the Carson Creek vicinity.

Off-Site Sewer Pipe Alignments Only

4.3-6 *A northwestern pond turtle survey shall be conducted no more than 48 hours prior to construction where construction activities overlap with suitable aquatic habitat (i.e., Carson Creek), and where construction will occur in arroyo willow riparian scrub or oak woodlands within 150 feet of these aquatic resources. If northwestern pond turtles or nests are not found, further mitigation is not required. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.*

If a northwestern pond turtle is observed within the proposed impact area, a qualified biologist shall relocate the individual to habitat of equivalent or greater value outside of the proposed impact area prior to construction. If a northwestern pond turtle nest is observed within the proposed impact area, the nest shall be fenced off and avoided until the eggs hatch. The exclusion fencing shall be placed no less than 25 feet from the nest. A qualified biologist shall monitor the nest daily during construction to ensure that hatchlings do not disperse into the construction area. Relocation of hatchlings shall occur as stipulated above, if necessary.

If, as part of the CWA Section 404 USACE permitting for the project, the USACE determines that formal Endangered Species Act (ESA) consultation with the USFWS is needed, the project proponent shall abide by the mitigation measures developed during the course of the ESA consultation, which shall supersede these measures. These mitigation measures could include, but are not limited to, seasonal work restrictions for initial ground disturbance, dewatering protocols, pre-construction surveys by a qualified biologist, the installation of wildlife exclusion fencing, turtle relocation, nest avoidance, biological monitoring, and worker environmental awareness training. Additional measures could include preservation, restoration, or enhancement of habitat on- or off-site, 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.

4.3-7 Impacts to nesting birds and raptors protected under the MBTA and CFGC either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with

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

As the footprints of the Project Development Area and Program Study Area are contiguous and feature similar habitats, the potential for impacts to nesting birds and raptors from developing either portion of the project site would be similar. Thus, the following discussion applies to the potential for buildout of both portions of the project site to impact nesting birds and raptors. The following discussion also applies to the off-site water alignment within the Bass Lake North Bike Trail, as it contains suitable habitat for nesting birds.

Project Development Area and Project Buildout

According to the BRA, although the study area is on the very edge of the elevational range for burrowing owl, and ground squirrel burrows were not observed within the study area, the annual brome grassland that is present throughout the study area provides suitable wintering habitat for burrowing owl, and the occasional ground-squirrel burrows and debris throughout the study area provide marginally suitable burrow habitat. If ground disturbance would occur while burrowing owls were in burrows on-site, individuals of the species could be killed. Similarly, the study area provides suitable nesting habitat to accommodate nesting songbirds and raptors protected under the MBTA and CFGC; such species include, but are not limited to, golden eagle, bald eagle, yellow-breasted chat, and loggerhead shrike. If nesting songbirds and raptors protected under the MBTA and CFGC were nesting on-site and/or within the off-site improvement areas, removal of the nest could kill individuals of the species. Furthermore, birds nesting in avoided areas adjacent to construction could be disturbed by construction, which could result in nest abandonment.

Tricolored blackbird and white-tailed kite have the potential to use the on-site annual brome grasslands for winter foraging. However, given the large amount of annual brome grassland within the study area and in adjacent areas, the fact that the species would only forage on-site during winter, and considering that most construction activities would occur outside of the winter foraging season, the project would not result in significant effects to foraging tricolored blackbird or white-tailed kite.

Based on the above, although the proposed project would not significantly impact tricolored blackbird or white-tailed kite, the project could have a substantial adverse effect, either directly or through habitat modifications, on other 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 measure would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.3-7 The project proponent shall implement the following:

- *If ground disturbance or other construction activities are proposed during the bird nesting season (February 1 – August*

31), a focused survey for nesting raptors and migratory bird nests shall be conducted by a qualified biologist within 14 days prior to the beginning of construction activities in order to identify active nests. This survey shall be conducted within the proposed construction area and all accessible areas within the following buffer areas:

- *0.5-mile for bald eagle and golden eagle;*
- *0.25-mile for tree-nesting raptors; and*
- *500 feet for all other species.*

- *Burrowing owl pre-construction surveys of suitable habitat shall be conducted within 14 days prior to the beginning of construction activities consistent with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012).*
- *If active raptor nests are found, construction activities shall not take place within 0.25-mile for golden eagle or within 500 feet of other raptor nest(s) until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer shall be established. These no-disturbance buffers may be reduced based on consultation and approval by the County.*
- *The limit of work shall be indicated by bright orange temporary fencing or other similar highly-visible marker. Construction activities or personnel shall not cross the fencing, except with approval of a qualified biologist. If trees containing nests or burrows must be removed as a result of project implementation, removal shall be completed during the nonbreeding season (late September to March) if possible, or after a qualified biologist determines that the young have fledged (during the breeding season).*
- *If active nests are not found during the required pre-construction surveys, further mitigation shall not be required.*
- *Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys. Surveys shall be repeated if there is a break of construction of more than 14 days during the nesting season.*

4.3-8 Impacts to roosting bats either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Pursuant to the BRA, pallid bat, silver-haired bat, Townsend's big-eared bat, and hoary bat all have high potential to occur within the study area, and western red bat has moderate potential to occur. As the footprints of the Project Development Area and Program Study Area are contiguous and feature similar habitats, the potential for

impacts to special-status bats species from developing either portion of the project site would be similar. Thus, the following discussion applies to the potential for buildout of both portions of the project site to impact special-status bats species. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, it was determined that the alignment lacks suitable roosting habitat to support special-status bats.[15]

Project Development Area and Project Buildout

The trees throughout the study area provide habitat for the aforementioned special-status bats species. As such, if special-status bats were roosting in trees proposed for removal during project construction, the bats could be injured or killed.

Conclusion

Based on the above, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on a bat species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

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

Project Development Area and Project Buildout

4.3-8 *A qualified biologist shall conduct a bat habitat assessment of all potential roosting trees within the proposed impact footprint. This habitat assessment shall identify all potentially suitable roosting habitat and may be conducted up to one (1) year prior to the start of construction.*

If potential roosting habitat is identified within the areas proposed for impact, the biologist shall survey the potential roosting habitat within 14 days prior to tree removal to determine presence of roosting bats. These surveys are recommended to be conducted utilizing methods that are considered acceptable by CDFW and bat experts. Methods may include evening emergence surveys, acoustic surveys, inspecting potential roosting habitat with fiberoptic cameras or a combination thereof. Survey results shall be provided to the El Dorado County Planning and Building Department within 15 days of completion of all surveys.

If pre-construction surveys indicate that roosts of special-status bats are not present, or that roosts are inactive or potential habitat is unoccupied, further mitigation is not required. If roosting bats are found, exclusion shall be conducted as recommended by a qualified biologist. Methods may include acoustic monitoring, evening emergence surveys, and the utilization of two-step tree removal supervised by a

[15] SWCA Environmental Consultants. *Biological Resources Evaluation for the Bass Lake North Bike Trail Project, El Dorado Hills, El Dorado County, California* [pg. E-6]. October 2022.

qualified biologist. Two-step tree removal involves removal of all branches that do not provide roosting habitat on the first day, and the next day cutting down the remaining portion of the tree. Once the bats have been excluded, tree removal may occur.

4.3-9 Impacts to Northern California ringtail either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout, to result in impacts to Northern California ringtail. Suitable habitat for Northern California ringtail is not present within the previously evaluated off-site water line alignment that would overlap the approved Bass Lake North Bike Trail.

Project Development Area

The proposed development footprint of the off-site sewer alternative, specifically south of Carson Creek, contains arroyo willow riparian scrub and dense oak woodland that is suitable habitat for Northern California ringtail. Removal of trees, downed logs, or snags within the arroyo willow riparian scrub or dense oak woodland south of Carson Creek along the sewer alignment could destroy Northern California ringtail nests, and kill individual ringtails if they were present.

Project Buildout

The BRA determined that the Program Study Area does not contain arroyo willow riparian scrub or dense oak woodland that would be suitable habitat for Northern California ringtail. Therefore, full project buildout would not result in any additional impacts to Northern California ringtail beyond those associated with buildout of the Project Development Area, as discussed above.

Conclusion

Based on the above, development within the Project Development Area and off-site sewer pipe alignment areas could have a substantial adverse effect, either directly or through habitat modifications, on a wildlife species (Northern California ringtail) 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.

Project Development Area (and Off-Site Sewer Pipe Alignments)

4.3-9 Within 14 days prior to the initiation of any construction activities, a qualified biologist shall conduct non-invasive preconstruction surveys

for Northern California ringtail and ringtail nests in suitable habitats (riparian habitats, oak woodlands with shrubby understory, and/or trees five inches DBH or greater in riparian areas, particularly those with cavities) that will be disturbed by construction activity. Non-invasive methods may include camera traps and track plates as well as physical surveys of suitable habitat. If ringtail are found prior to the initiation of, and/or during construction activities, a qualified biologist shall consult with CDFW prior to relocation of any individual ringtail. The camera trap may be removed once construction begins.

If a ringtail nest is observed within the project area during the preconstruction survey, a qualified biologist shall establish a 250-foot no-disturbance buffer and the nest shall be fenced off and avoided until the young have left the nest, and the nest is no longer active as determined by the qualified biologist. A qualified biologist shall monitor to ensure that ringtails do not disperse into the construction area.

If any ringtails are observed within the project area, work shall be suspended in a 100-foot radius of the animal until the animal leaves the project area on its own volition. If necessary, the qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation. Any worker who inadvertently injures or kills a ringtail or who finds one dead, injured, or entrapped must immediately report the incident to a qualified biologist.

CDFW may require mitigation for potential impacts to ringtail as part of a streambed alteration agreement. If CDFW assigns mitigation that is more stringent than the measure proposed above, the CDFW measure shall take precedence.

Program Study Area

None required.

4.3-10 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. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

One vegetation community mapped on-site is considered to be a Sensitive Natural Community by CDFW: arroyo willow riparian scrub. The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout, to result in impacts to arroyo willow riparian scrub. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, it was determined that sensitive natural communities do not occur within the alignment.[16] See Impact 4.3-11 for a discussion of wetlands.

[16] SWCA Environmental Consultants. *Biological Resources Evaluation for the Bass Lake North Bike Trail Project, El Dorado Hills, El Dorado County, California* [pg. 12]. October 2022.

Project Development Area

Although arroyo willow riparian scrub does not occur within the project site, the vegetation community occurs within a portion of the off-site sewer alternative that is shared by both of the possible sewer line alignments. According to the BRA, if the off-site sewer alternative is selected, approximately 0.03-acre of arroyo willow riparian scrub would be permanently impacted by project development, and approximately 0.05-acre of arroyo willow riparian scrub would be temporarily impacted (see Figure 4.3-5).

Project Buildout

The BRA determined that the Program Study Area does not contain arroyo willow riparian scrub. Therefore, full project buildout would not result in any additional impacts to riparian habitat or other sensitive natural communities beyond those associated with development of the Project Development Area, as discussed above.

Conclusion

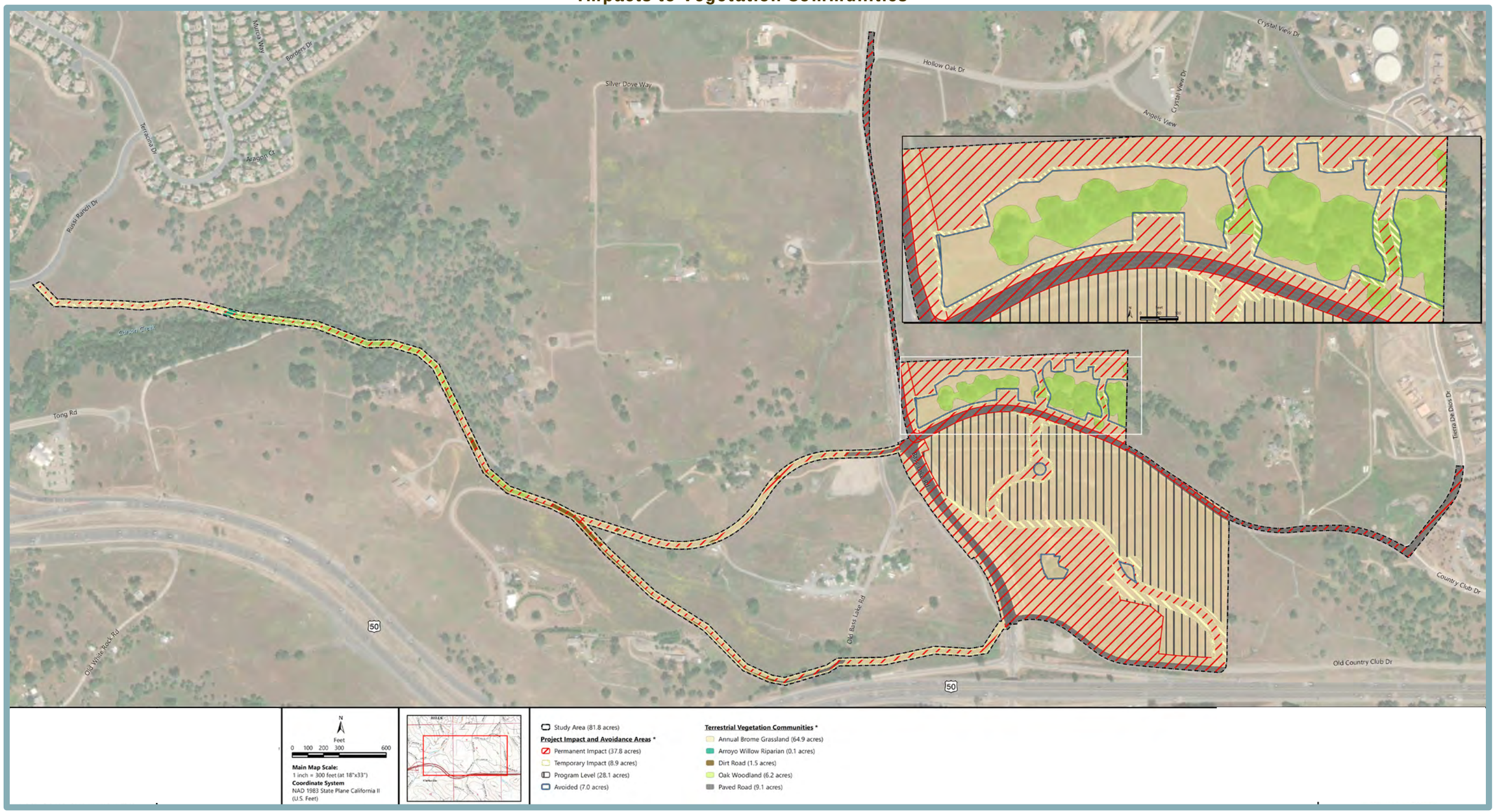
Based on the above, if the off-site sewer alternative is implemented, development of such would result in potential impacts to arroyo willow riparian scrub. Impacts to arroyo willow riparian scrub are regulated under CFGC 1600 et seq. Specifically, CFGC Section 1602 requires notification to CDFW before a project commences "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." CDFW then reviews the proposed action(s). If CDFW determines that the proposed activity would substantially affect fish and wildlife resources, a LSAA containing measures to protect affected fish and wildlife resources would be required. The LSAA would be comprised of the final mitigation measure(s) and condition(s) mutually agreed upon by CDFW and the project applicant. Additionally, projects that require a LSAA often additionally require a permit from the USACE under Section 404 of the CWA. In such instances, the conditions of the Section 404 permit and the LSAA may overlap. Because the proposed project would result in disturbances to the arroyo willow riparian scrub within the study area, the project would be required to comply with the provisions of CFGC Section 1600, et seq.

Based on the above, without compliance with the provisions of CFGC Section 1600, et seq., the proposed project could have a substantial adverse effect on riparian habitat identified in local or regional plans, policies, regulations or by the CDFW or USFWS, and a ***significant*** impact could occur.

Mitigation Measure(s)

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

Figure 4.3-5
Impacts to Vegetation Communities



Off-Site Sewer Pipe Alignments Only

4.3-10 *Prior to the commencement of ground-disturbing activities associated with the off-site sewer pipe, the project proponent shall apply for a Section 1600 Lake or Streambed Alteration Agreement from CDFW. Minimization and avoidance measures shall be proposed as appropriate and may include: preconstruction species surveys and reporting, protective fencing around avoided biological resources, worker environmental awareness training, seeding disturbed areas adjacent to open space areas with native seed, and installation of project-specific storm water BMPs. Mitigation may include restoration or enhancement of resources on- or off-site, purchase habitat credits from an agency-approved mitigation/ conservation bank, off-site, working with a local land trust to preserve land, or any other method acceptable to CDFW.*

4.3-11 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. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

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, CDFW, and RWQCB 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, which prohibits the discharge of dredged or fill material into waters of the U.S. without a permit, including certain wetlands and unvegetated "other waters of the U.S." 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.

The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout, to result in impacts on State or federally protected wetlands. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, the alignment contains two seasonal wetlands, east of Bass Lake Road. These seasonal wetlands may be regulated by the Central Valley RWQCB, in accordance with the Porter-Cologne Act, which defines waters of the State as "any surface water or groundwater, including saline waters, within the boundaries of the state." The wetlands are also likely to be regulated under the CDFW Lake and Streambed Alteration Program because they are associated with a channel with riparian vegetation. Resource Agency permits have already been obtained for the Bass Lake North Bike Trail, including a 404 permit from the USACE

(SPK-2022-00634), 401 Water Quality Certification from the RWQCB (WDID 5A09CR00228), and Streambed Alteration Agreement from the CDFW (ELD-34364-R2). If the Bass Lake North Bike Trail alignment is selected as the location for the off-site water line required for the proposed project, then the applicant will be required to comply with the conditions on the aforementioned permits (see Mitigation Measure 4.3-11(d) below).

Project Development Area and Project Buildout

The BRA determined that, of the approximately 1.059 acres of mapped aquatic resources within the Project Development Area and Program Study Area, approximately 0.560-acre would be permanently impacted by the project, 0.038-acre would be temporarily impacted, and 0.038-acre would be avoided (see Figure 4.3-6).

If the off-site sewer alternative is selected, additional aquatic resources would have the potential to be impacted. If Sewer Alternative 1 is selected, the BRA determined that approximately 0.027-acre of aquatic resources would be permanently impacted, and approximately 0.036-acre would be temporarily impacted. If Sewer Alternative 2 is selected, approximately 0.027-acre of aquatic resources would be permanently impacted, and 0.035-acre would be temporarily impacted.

Potential impacts to aquatic resources associated with buildout of the Project Development Area, as well as both off-site sewer alternatives, are summarized in Table 4.3-5.

Conclusion

Overall, buildout of the proposed project, in combination with the development of the off-site sewer alternative, would result in a total of approximately 0.585- to 0.589-acre of permanent impacts to aquatic resources, and approximately 0.072- to 0.073-acre of temporary impacts. The range of potential impacts represents the full range of cumulative impacts to aquatic resources, with the lower end assuming the least impactful sewer alternative, and the upper end assuming the most impactful sewer alternative.

Based on the above, without compliance with CFGC, the proposed 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. Therefore, 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.

Project Development Area and Project Buildout

4.3-11(a) *Prior to initiation of any ground disturbance activities, the project proponent shall apply for a Section 404 permit from the U.S. Army Corps of Engineers (USACE) for impacts to regulated Waters (Waters) of the U.S.*

Figure 4.3-6
Impacts to Aquatic Resources

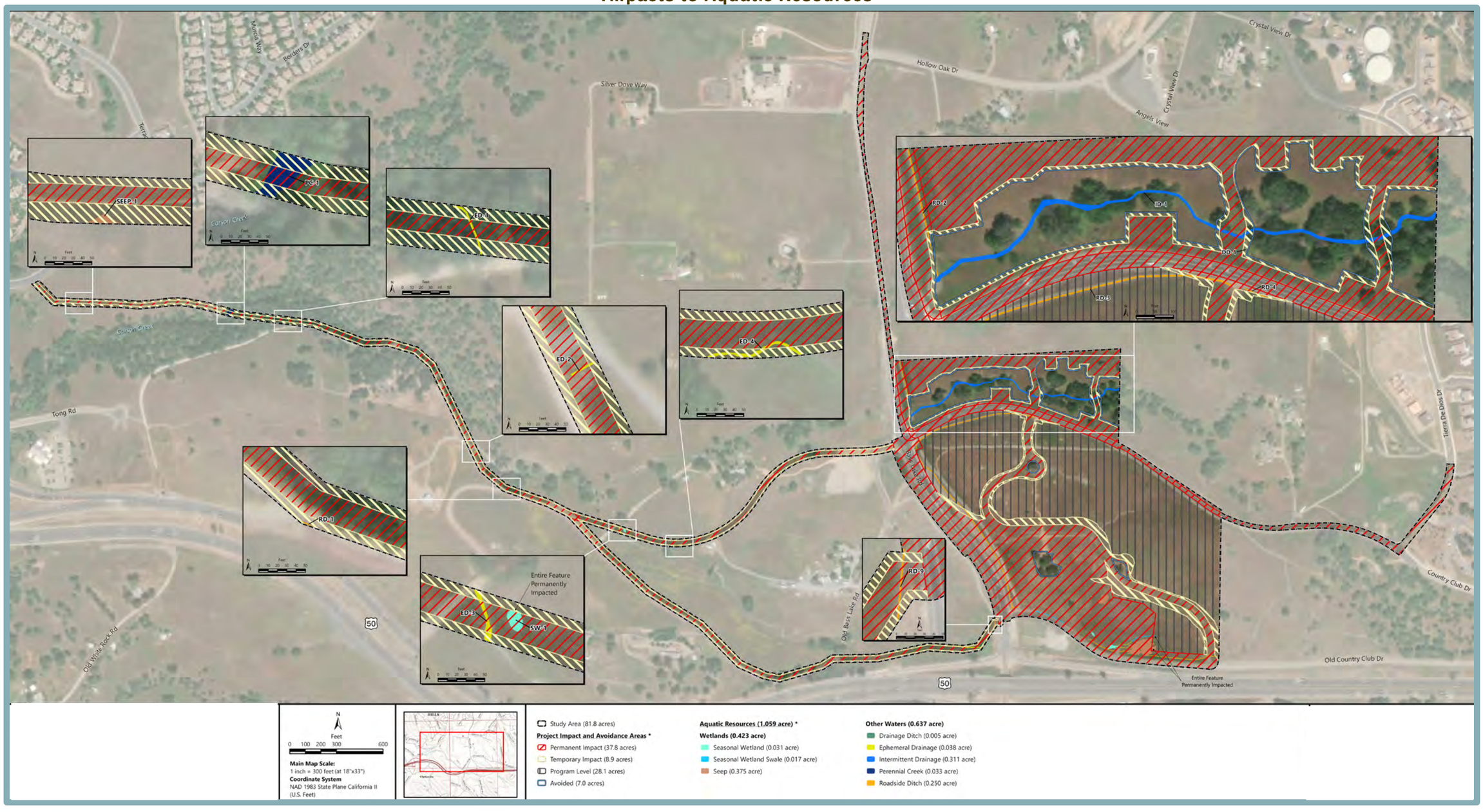


Table 4.3-5
Impacts to Aquatic Resources Associated with the Project

Aquatic Resources	Permanent Impacts								Temporary Impacts								Total Impacts							
	PDA[1]		Sewer Alt 1		Sewer Alt 2		Total		PDA[1]		Sewer Alt 1		Sewer Alt 2		Total		PDA[1]		Sewer Alt 1		Sewer Alt 2		Total	
	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet	acres	linear feet
Seasonal Wetland	0.025		--		0.007		0.025-0.031		--		--		--		--		0.025		--		0.007		0.205 – 0.031	
Seasonal Wetland Swale	0.017[2]		--		--		0.017		--		--		--		--		0.017		--		--		0.017	
Seep	0.370		--		--		0.370		--		0.005		0.005		0.005		0.370		0.005		0.005		0.375	
Drainage Ditch	0.001	21	--	--	--	--	0.001	21	0.002	35	--	--	--	--	0.002	35	0.003	56	--	--	--	--	0.003	56
Ephemeral Drainage	0.003	159	0.012	176	0.007	108	0.010-0.015	267-335	--	--	0.010	153	0.010	152	0.010	152-153	0.003	159	0.022	329	0.017	260	0.020 – 0.023	419-488
Intermittent Drainage	0.019	109	--	--	--	--	0.019	109	0.015	81	--	--	--	--	0.015	81	0.034	208	--	--	--	--	0.034	208
Perennial Creek	--	--	0.013	22	0.013	22	0.013	22	--	--	0.020	33	0.020	33	0.020	33	--	--	0.033	55	0.033	55	0.033	55
Roadside Ditch	0.125	1,873	0.002	46	--	--	0.125–0.127	1,837–1,883	0.020	269	0.001	31	<0.001	16	0.020–0.021	285-300	0.145	2,106	0.003	77	<0.001	16	0.145 – 0.148	2,122-2,199
Total	**0.560**	**2,124**	**0.027**	**244**	**0.027**	**130**	**0.585-0.589**	**2,254-2,368**	**0.038**	**244**	**0.036**	**217**	**0.035**	**201**	**0.072-0.073**	**586-602**	**0.597**	**2,529**	**0.063**	**461**	**0.062**	**331**	**0.652 – 0.664**	**2,840-2,986**

[1] Project Development Area.
[2] 0.001 acre of seasonal wetland swale that is in the Program Study Area was considered permanently impacted by the Project.

Note: Small summation errors may occur due to rounding. The lower end of the impact ranges assumes the least impactful sewer alternative the upper end of the impact ranges assumes the most impactful sewer alternative.

Source: Madrone Ecological Consulting, 2024.

Waters that will be impacted shall be 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.

4.3-11(b) *Prior to initiation of any ground disturbance activities, the project proponent shall apply for WDRs and/or a Water Quality Certification from the RWQCB (depending on the limit of federal jurisdiction to wetlands and waters of the U.S. in place at the time) and adhere to the certification conditions. Waters of the state that will be impacted shall be 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 RWQCB.*

4.3-11(c) *Implement Mitigation Measure 4.3-10.*

4.3-11(d) *If the project applicant proceeds with the proposed off-site water main to be installed within the alignment of the approved Bass Lake North Bike Trail, the project applicant shall implement all mitigation measures included in the following resource agency permit documents:*

- *Clean Water Act Section 401 Water Quality Certification and Order (WDID No. 5A09CR00228);*
- *Streambed Alteration Agreement (EPIMS Notification No. ELD-34364-R2); and*
- *Section 404 Permit (ID No. SPK-2022-00634).*

4.3-12 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Based on the analysis below, the impact is *less than significant*.

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation also occurs when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance, such as fire, mudslide, or grading activities. Wildlife corridors mitigate the effects of fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thereby reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout, to 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. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, it was determined that wildlife corridors do not occur within the alignment.[17]

Project Development Area and Project Buildout

The majority of the project site, including the off-site sewer alternative, is comprised of annual brome grasslands and roadways virtually identical to surrounding areas. Such conditions are largely conducive to wildlife movement, but are not necessarily corridors. The oak woodlands around the intermittent drainage in the northern portion of the project site could serve as a low-quality wildlife corridor, and the arroyo willow riparian scrub and surrounding oak woodland along Carson Creek are also expected to serve as a wildlife corridor. Additionally, deer may utilize the Bass Lake Road undercrossing of US 50 to the south of the project site as a migration corridor to access open areas south of US 50.

According to the BRA, the potential wildlife corridor along the intermittent drainage in the northern portion of the project site is considered low-quality because the current western terminus of the drainage is a relatively small culvert that carries the flow under Bass Lake Road. The culvert does not allow for large wildlife passage, and a tall (20 foot plus) road prism and the heavily-travelled Bass Lake Road are the only way for large wildlife to continue west. As such, wildlife use of this corridor is likely minimal. Furthermore, the proposed project has been designed to preserve the wildlife corridor along the intermittent drainage in the northern portion of the project site to the extent possible.

The BRA determined that the wildlife corridor along Carson Creek is high quality. However, according to the BRA, the wildlife corridor would be largely unaffected by the project. The wildlife corridor along Carson Creek is located within the portion of the proposed sewer line alignment that is shared by both sewer alignment options. The Creek itself would not be directly impacted, but a new sewer pipe would be hung over the creek channel. Trails are easily crossed by wildlife and maintenance vehicles will only very occasionally use the access road. As such, although the wildlife corridor along Carson Creek may be indirectly impacted by the proposed project if the off-site sewer alternative is selected, the impact is not expected to significantly affect existing wildlife corridors.

Deer use of the Bass Lake Road undercrossing to access open areas south of US 50 could be somewhat impacted by development within the Project Development Area, as the grasslands within the Project Development Area would be removed. However, extensive grasslands will still be available to the west of the Project Development Area, and some grasslands would still be present to the east, and as a result, substantial impacts to deer movement are not anticipated. Furthermore, the proposed project would not impact the undercrossing itself. Therefore, the proposed project is not anticipated to significantly impact deer use of the Bass Lake Road undercrossing.

[17] SWCA Environmental Consultants. *Biological Resources Evaluation for the Bass Lake North Bike Trail Project, El Dorado Hills, El Dorado County, California* [pg. 13]. October 2022.

Conclusion

Based on the above, the proposed 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.

4.3-13 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As discussed above, in accordance with the El Dorado County Oak Resources Conservation Ordinance, impacts to oak resources are calculated differently for oak woodland areas and non-oak woodland areas. Within mapped oak woodlands, impacts are calculated based on impact to oak canopy, plus impacts to any individual native oak trees within the woodland that are 36 inches or greater DBH. Outside of mapped oak woodlands, impacts are calculated based on impacts to each native oak tree that is six inches or greater DBH. Mitigation is only required for trees that are in Fair or better condition. In addition, it is noted that trees are considered permanently impacted if the trunk falls within either the permanent or temporary impact boundary, or if greater than approximately 30 percent of the tree's dripline area would be permanently impacted.

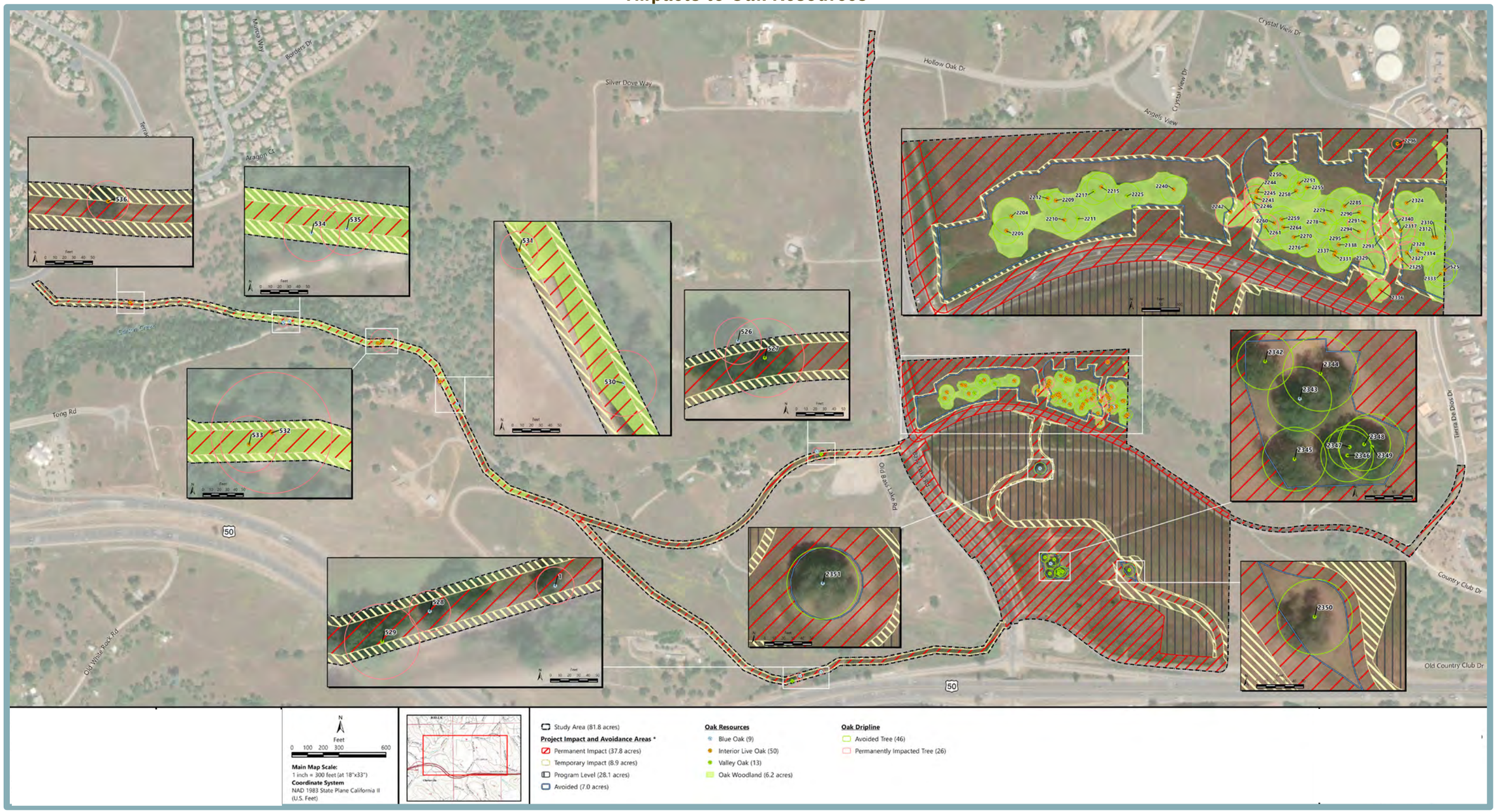
The following analysis addresses potential of buildout of the Project Development Area, as well as Project Buildout, to conflict with the County's ORMP. With respect to the previously evaluated off-site water line alignment within the approved Bass Lake North Bike Trail, it was determined that development within the alignment of the Bass Lake North Bike Trail would result in the removal of one *Salix laevigata* tree and one *Ficus carica* tree, each with a diameter at breast height of less than four inches.[18] This impact would be addressed by compliance with permit conditions (see Mitigation Measure 4.3-10[d]).

Project Development Area

According to the ORTR, a total of approximately 0.3-acre of oak woodland would be permanently impacted within the Project Development Area, and approximately 0.2-acre of oak woodland would be temporarily impacted within the Project Development Area (see Figure 4.3-7). Within the oak woodland, a total of seven native oak trees with a DBH of 36 inches or greater would be impacted, six of which are in fair to good condition. In addition, one individual native oak tree with a DBH of six inches or greater outside of oak woodlands would be permanently impacted within the Project Development Area; the tree is in poor condition.

[18] California Department of Fish and Wildlife. *Streambed Alteration Agreement (ELD-34364-R2), Toll Brothers, Bass Lake North Bike Trail* [pg. 2]. October 2022.

Figure 4.3-7
Impacts to Oak Resources



Potential oak resources impacts within the Project Development Area are summarized in Table 4.3-6, below. A total of approximately 0.5-acre of oak woodland and, as shown in Table 4.3-6, six individual trees in fair to good condition (with a cumulative DBH of 264.3 inches) within the Project Development Area would be impacted by the proposed project.

Table 4.3-6
Oak Tree Impacts within the Project Development Area

			Number of Impacted Trees (DBH)			
			Blue Oak	Interior Live Oak	Valley Oak	Total
Trees ≥36" DBH Within Oak Woodlands	Fair or Better		0	6 (264.3)	0	6 (264.3)
	Poor Condition		0	1 (38.4)	0	1 (38.4)
Subtotal						7 (302.7)
Trees Outside of Oak Woodlands	Fair or Better	6-35" DBH	0	0	0	0
		≥36" DBH	0	0	0	0
	Poor Condition	6-35" DBH	0	1 (23.4)	0	1 (23.4)
		≥36" DBH	0	0	0	0
Subtotal						1 (23.4)
Total Trees in Fair to Good Condition			0	6 (264.3)	0	6 (264.3)
Total			0	8 (326.1)	0	8 (326.1)

Source: Madrone Ecological Consulting, 2024.

Sewer Alternative 1

According to the ORTR, a total of approximately 1.2 acres of oak woodland could be permanently impacted by Sewer Alternative 1, and approximately one-acre of oak woodland could be temporarily impacted by Sewer Alternative 1 (see Figure 4.3-7). It is important to note that this is a conservative estimate, as it assumes all areas within the 50-foot corridor studied for the off-site sewer pipe alignments would be adversely affected during construction activities. It is the intent of the applicant to avoid as many oak trees as possible when preparing design plans for the off-site sewer pipe improvements.

Within the oak woodland, two native oak trees with a DBH of 36 inches or greater could be impacted, both of which are in fair to good condition. In addition, a total of four individual native oak trees with a DBH of six inches or greater outside of oak woodlands could be permanently impacted by Sewer Alternative 1, three of which are in fair to good condition. Of the three trees in fair to good condition that may be impacted, one has a DBH of 36 inches or greater.

Potential worst-case oak resources impacts associated with buildout of Sewer Alternative 1 are summarized in Table 4.3-7, below. A total of approximately 2.2 acres of oak woodland and, as shown in Table 4.3-7, five individual trees in fair to good

condition with a cumulative DBH of 200 inches could be impacted by buildout Sewer Alternative 1.

Table 4.3-7
Oak Tree Impacts within Sewer Alternative 1

			Number of Impacted Trees (DBH)			
			Blue Oak	Interior Live Oak	Valley Oak	Total
Trees ≥36" DBH Within Oak Woodlands	Fair to Good		0	2 (115.9)	0	2 (115.9)
	Poor Condition		0	0	0	0
Subtotal						2 (115.9)
Trees Outside of Oak Woodlands	Fair to Good	6-35" DBH	2 (41.0)	0	0	2 (41.0)
		≥36" DBH	0	0	1 (43.1)	1 (43.1)
	Poor Condition	6-35" DBH	0	1 (26.6)	0	1 (26.6)
		≥36" DBH	0	0	0	0
Subtotal						4 (110.7)
Total Trees in Fair to Good Condition			2 (41.0)	2 (115.9)	1 (43.1)	5 (200.0)
Total			2 (41.0)	3 (142.5)	1 (43.1)	6 (226.6)

Source: Madrone Ecological Consulting, 2024.

Sewer Alternative 2

According to the ORTR, a total of approximately 1.2 acres of oak woodland could be permanently impacted by Sewer Alternative 2, and approximately one-acre of oak woodland could be temporarily impacted by Sewer Alternative 2 (see Figure 4.3-7).

Within the oak woodland, two native oak trees with a DBH of 36 inches or greater could be impacted, both of which are in fair to good condition. In addition, a total of three individual native oak trees with a DBH of six inches or greater outside of oak woodlands could be permanently impacted by Sewer Alternative 2, two of which are in fair to good condition. Of the two trees in fair to good condition that may be impacted, one has a DBH of 36 inches or greater.

Potential worst case oak resources impacts associated with buildout of Sewer Alternative 1 are summarized in Table 4.3-8, below. A total of approximately 2.2 acres of oak woodland and, as shown in Table 4.3-8, four individual trees in fair to good condition (with a cumulative DBH of 189.4 inches) could be impacted by buildout of Sewer Alternative 2.

Table 4.3-8
Oak Tree Impacts within Sewer Alternative 2

			Number of Impacted Trees (DBH)			
			Blue Oak	Interior Live Oak	Valley Oak	Total
Trees ≥36" DBH Within Oak Woodlands	Fair to Good		0	2 (115.9)	0	2 (115.9)
	Poor Condition		0	0	0	0
Subtotal						2 (115.9)
Trees Outside of Oak Woodlands	Fair to Good	6-35" DBH	0	0	1 (35.0)	1 (35.0)
		≥36" DBH	1 (38.5)	0	0	1 (38.5)
	Poor Condition	6-35" DBH	0	1 (26.6)	0	1 (26.6)
		≥36" DBH	0	0	0	0
Subtotal						3 (100.1)
Total Trees in Fair to Good Condition			1 (38.5)	2 (115.9)	1 (35.0)	4 (189.4)
Total			1 (38.5)	3 (142.5)	1 (35.0)	5 (216.0)

Source: Madrone Ecological Consulting, 2024.

Project Buildout

The BRA determined that the Program Study Area portion of the project site does not contain any oak resources. Therefore, full project buildout would not result in any additional impacts related to such beyond those associated with development of the Project Development Area, as discussed above.

Conclusion

Using conservative estimates, as discussed above, development of the Project Development Area combined with the off-site sewer pipe could permanently impact approximately 1.5 acres of oak woodland and could temporarily impact 1.2 acres of oak woodland. Within the oak woodland, the development of the Project Development Area combined with the off-site sewer alternative could impact nine native oak trees with a DBH of 36 inches or greater, eight of which are in fair to good condition. In addition, a total of three to four individual native oak trees with a DBH of six inches or greater outside of oak woodlands could be permanently impacted by development of the Project Development Area combined with the off-site sewer alternative, two to three of which are in fair to good condition. Of the two to three trees in fair to good condition that may be impacted, two have a DBH of 36 inches or greater (one along each off-site sewer alternative).

Overall, depending on which sewer alignment is selected, the proposed project could have the potential to impact approximately 2.7 acres of oak woodland and 11 to 12 individual trees in fair to good condition, with a cumulative DBH of 453.7 to 464.3 inches. This is a cumulative total of approximately 2.7 acres (44 percent) of impact of the total 6.2 acres of oak woodland mapped within the project area. In accordance with the ORMP, the project proponent would be required to mitigate at a ratio of 1:1

for impacts to 0 to 50 percent of the oak woodland within the project area. Based on this ratio, the project would require approximately 2.7 acres of oak woodland mitigation.

Based on the above, without compliance with requirements set forth by the ORMP to address impacts to oak resources, the proposed project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Therefore, a ***significant*** impact could occur.

Mitigation Measure(s)

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

Project Development Area and Off-Site Sewer Pipe Alternatives

4.3-13 *Prior to initiation of ground disturbing activities within the Project Development Area and Off-Site Sewer Pipe Alignments, the applicant shall submit a final version of the Oak Resources Technical Report (ORTR) and an Oak Resources Code Compliance Certificate to the El Dorado County Planning and Building Department that address all on-site and off-site oak tree and oak woodland impacts. The following mitigation for oak woodlands and individual oak trees shall be accomplished using one or more of the following options:*

a. *In-lieu fee payment based on the percent of on-site Oak Woodland impacted by the development and the DBH inches of trees impacted to be either used by the County to acquire off-site deed restrictions and/or conservation easements or to be given by the County to a land conservation organization to acquire off-site deed restrictions and/or conservation easements.*
    1. *In accordance with the ORMP, and based on current impact estimates for the Project Development Area and Off-Site Sewer Pipe Alignments, the project proponent would be required to mitigate at a ratio of 1:1 for impacts to 0 to 50 percent of the Oak Woodland within the project area. Based on this ratio, the project would require approximately 2.7 acres of Oak Woodland mitigation, unless it can be shown in the final ORTR, based on final project design, that the project would impact a lesser amount of oak woodland.*
    2. *In accordance with the ORMP, based on a mitigation ratio of 3:1 for Heritage Trees and 1:1 for smaller trees, impacts to trees for the project combined with the off-site sewer alignments would incur mitigation (DBH) of up to 1,291.1 to 1,310.6 DBH inches, unless it can be shown in the final ORTR, based on final project design, that the project would impact a lesser amount of Heritage/Individual oak trees.*

b. Off-site deed restriction or conservation easement acquisition for purposes of off-site oak woodland conservation consistent with Chapter 4.0 (Priority Conservation Areas) of the ORMP;
c. Replacement planting within an area on-site for up to 50 percent of the total oak woodland mitigation requirement consistent with Section 2.4 (Replacement Planting Guidelines) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement;
d. Replacement planting within an area off-site for up to 50 percent of the total oak woodland mitigation requirement. Off-site replacement planting areas shall be consistent with Section 2.4 (Replacement Planting Guidelines) and Chapter 4.0 (Priority Conservation Areas) of the ORMP. This area shall be subject to a Deed Restriction or Conservation Easement; or
e. A combination of options a through d above.

The final form of mitigation shall be approved by the El Dorado County Planning and Building Department prior to initiation of any ground disturbing activities.

Program Study Area
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 geographic scope for the cumulative biological resources analysis generally includes buildout of the proposed project in conjunction with the El Dorado County General Plan and reasonably foreseeable projects involving amendments to the General Plan. For more details regarding the cumulative setting, refer to Chapter 5, Statutorily Required Sections, of this EIR.

4.3-14 Cumulative loss of habitat for special-status species and oak woodlands. Based on the analysis below, even with implementation of mitigation, the project's incremental contribution to the significant cumulative impact is *cumulatively considerable* and *significant and unavoidable*.

As the footprints of the Project Development Area and Program Study Area are contiguous, and the proposed uses for both components of the proposed project are similar, the potential for either component of the proposed project to result in the cumulative loss of habitat for special-status species would be similar. Thus, the following discussion applies to both components of the proposed project.

The El Dorado County General Plan EIR identified significant and unavoidable biological resource impacts associated with loss and fragmentation of wildlife habitat and significant and unavoidable impacts on special-status species, wildlife movement, and sensitive habitats under project and cumulative conditions. The El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR also identified significant and unavoidable biological resource impacts associated with loss and fragmentation of wildlife habitat and significant and unavoidable impacts on special-status species, wildlife movement, and sensitive habitats under project and cumulative conditions. The approved and proposed development in the project area would further contribute to identified cumulative biological resource impacts anticipated under the General Plan and Targeted General Plan Amendment/Zoning Ordinance Update.

The El Dorado County Board of Supervisors certified the Final EIR and adopted the Biological Resources Policy Update and the ORMP in October 2017. The Biological Resources Policy Update included revisions to the General Plan objectives, policies, and implementation measures to establish a comprehensive Biological Resource Mitigation Program. The objective of the program is to conserve special-status species habitat, aquatic habitat, wetland and riparian habitat, habitat for migratory deer herds, and large expanses of native vegetation. The ORMP updated and revised the existing Oak Woodland Management Plan and defines mitigation requirements for impacts on oak woodlands, individual native oak trees, and heritage trees. The Final EIR determined that the implementation of the Biological Resources Policy Update and ORMP would result in significant and unavoidable impacts to the loss of sensitive habitats associated with the loss of valley oak trees and valley oak woodlands.

The Bass Lake EIR, which assessed buildout of the BHLSP area, determined that buildout of the BHLSP would result in the disruption and/or loss of natural communities; the Bass Lake EIR anticipated that following development of the area, less than one-fourth of the area would support native vegetation.[19] Even if areas were set aside for wildlife, the presence of residential uses in the vicinity would unavoidably impact such areas. The Bass Lake EIR concluded that the inherent incompatibility of residential land use with natural areas could not be fully resolved, and impacts related to the loss of wildlife habitat would be significant and unavoidable.

Project Development Area and Project Buildout

The County's General Plan includes several approved developments, including, but not limited to, the Lime Rock Valley Specific Plan (LRVSP), the Village of Marble Valley Specific Plan (VMVSP), and the EDH 52 Project. Implementation of the proposed project, in combination with other reasonably foreseeable development in the County, would result in a significant cumulative impact related to the loss of special-status species habitat.

As discussed above, the study area contains a variety of vegetation communities, including annual brome grassland, arroyo willow riparian woodland, oak woodland, and roads. In addition, the study area is comprised of aquatic resources, including seasonal wetland, seasonal wetland swale, seep, drainage ditch, ephemeral drainages, intermittent drainage, roadside ditches, and Carson Creek. Development of the proposed on-site and off-site project components would result in potential

[19] El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 1991.

impacts to portions of the foregoing areas. Potential impacts to aquatic resources are detailed in Table 4.3-5, above. As discussed throughout this chapter, the above areas represent potential habitat for various special-status species listed in Table 4.3-3.

This chapter provides a wide range of mitigation to minimize potential adverse effects to habitat for special-status species. For development of the Project Development Area and the potential installation of the off-site sewer pipe, mitigation measures are set forth in this chapter to ensure that preconstruction surveys are conducted for special-status plant and wildlife species with potential to occur in the study area, applicable agency notifications are completed and permits obtained in accordance with Section 1600 of the CFGC and Sections 404 and 401 of the CWA, and the project applicant apply for a Section 1600 LSAA from CDFW and WDRs and/or a Water Quality Certification from the RWQCB.

Overall, with incorporation of the mitigation measures set forth herein, the proposed project's incremental contribution to cumulative biological resources impacts would be reduced.

Conclusion

Project-specific impacts to special-status species and habitats, including oak woodlands, would be reduced to a less-than-significant level with the implementation of mitigation set forth within this chapter. However, consistent with the conclusions of the Bass Lake EIR and the El Dorado County General Plan EIR, the combined effects on biological resources resulting from buildout of the proposed project in combination with approved/planned development throughout the County would be considered significant and unavoidable. The proposed project's incremental contribution to cumulative impacts on special-status species, riparian habitat, State and federally protected wetlands, and oak woodlands, while reduced through the mitigation measures included in this chapter, could be considered cumulatively considerable. Therefore, the project's contribution to the cumulative loss of habitat for special-status species and oak woodlands identified in the El Dorado County General Plan EIR and the Bass Lake EIR would be ***cumulatively considerable*** and ***significant***.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce project-specific impacts related to biological resources, but would not be sufficient to reduce the cumulative impact to a less-than-significant level. Therefore, even with implementation of the following mitigation measures, the project's incremental contribution to the significant cumulative impact would be *cumulatively considerable* and *significant and unavoidable*.

Project Development Area and Project Buildout

4.3-14 *Implement Mitigation Measures 4.3-1, 4.3-2, 4.3-3, 4.3-4, 4.3-5, 4.3-6, 4.3-7, 4.3-8, 4.3-9, 4.3-10, 4.3-11(a) through 4.3-11(d), and 4.3-13.*

4.4. CULTURAL RESOURCES

4.4. CULTURAL RESOURCES

4.4.1 INTRODUCTION

The Cultural Resources chapter of the EIR addresses known and unknown historic and prehistoric cultural resources in the vicinity of the project area. Cultural resources can be categorized into prehistoric or historic resources. Prehistoric resources are those sites and artifacts associated with indigenous, non-Euroamerican populations, generally prior to contact with people of European descent (i.e., precontact). 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 resources, identifies thresholds of significance, evaluates project impacts to such resources, and sets forth mitigation measures. Information presented in the chapter is primarily drawn from the Cultural Resources Study prepared by Historic Resource Associates (HRA).[1] Other sources include the 2004 El Dorado County General Plan,[2] the 2004 El Dorado County General Plan EIR,[3] the Bass Lake Hills Specific Plan (BLHSP),[4] and the associated Bass Lake Road Study Area Program EIR (Bass Lake EIR).[5]

It should be noted that potential impacts to tribal cultural resources are discussed and evaluated in Chapter 4.12, Tribal Cultural Resources, of this EIR.

4.4.2 EXISTING ENVIRONMENTAL SETTING

The project site consists of approximately 60.5 acres of land, identified as Assessor's Parcel Numbers (APNs) 119-080-012, 119-080-021, and 119-080-023 located in El Dorado County, California, approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road. The project area is located in the western slope of the central Sierra Nevada foothills, in an area classified as the transition from the Great Central Valley to the Foothill Gray Pine Belt. The project area lies at an elevation of approximately 75 to 1,150 feet above sea level. In the Paleozoic era, a large inland sea occupied the area of the present Sierra Nevada Mountains. A land mass west of the present coastline and the continental land mass provided mud, sand, silt, and marl for deposition during the life span of the sea. Deformation and uplift with volcanic eruptions caused a great body of sediments and volcanic rocks to accumulate. The accumulation has been referred to as the "Calaveras group" and consisted of slate, sandstone, limestone, chert, metavolcanic rocks, schist, and gneiss. Although most of the rock groups lie well east of the project area, other minerals occur in the study area, including granite and quartz. Many, if not all, of the mineral resources were procured by native people and used for tool making.

The predominant vegetation of the project site consists of oak woodland interspersed with areas cleared previously for grazing livestock and are currently covered with non-native grasses, sedge, star thistle, and other varieties of ground cover. Common species within the project site include gray pine, interior live oak, scrub oak, blue oak, toyon, manzanita, valley oak, California

1 Historic Resource Associates. *Cultural Resources Study of the Town & Country Village El Dorado Project, El Dorado Hills, El Dorado County, California 95762*. January 2024.
2 El Dorado County. *El Dorado County General Plan*. Adopted July 19, 2004.
3 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.
4 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
5 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

blackberry, yerba santa, California buckeye, and redbud. Additionally, commonly observed species within the project site include valley oak, interior live oak, Sierra coffee berry, California blackberry, willow, and bunch grasses. Non-native species included domesticated grape vines and star thistle.

The climate in the area is characterized as humid mesothermal, meaning the climate is Mediterranean or dry summer subtropical. The upper valley and foothill region has been termed the "thermal belt" because of the mild winter climate. However, temperature is dependent upon elevation and air drainage. Both prehistoric and historic sites have been identified throughout these life zones. However, questions of diversity related to ecosystems and population size have not been fully explored in this region of the Sierra. Prehistoric sites generally lie along the higher ridges and sheltered valleys. The Sierra Nevada foothills have witnessed radical shifts in climate in the last two decades, from near drought conditions to near record rainfalls. Average rainfall is around 15 to 40 inches per year. Substantially more rain falls above the 3,000-foot elevation. The erratic shifts in climate played havoc with aboriginal populations, who were dependent upon the sustained productivity of the ecosystem.

The following sections provide further details regarding the precontact overview, ethnographic overview, historic overview of the project area, and project site history and current uses. In addition, a description of any identified cultural resources associated with the project site is provided below.

Precontact Overview

The earliest residents in the high Sierra are thought to date to at least 6000 B.C. The early period of 6000 B.C. is represented by the Parman type projectile points found along the Tahoe Reach of the Truckee River. Within portions of the high Sierra, Parman projectile points and similar point types have been found on El Dorado, Tahoe, and Lassen National Forests, which is known as the Tahoe Reach phase.

Following the Tahoe Reach phase, a second phase in the high Sierra, known as the Spooner phase was documented, which dates from 2000 to 5000 B.C. and is characterized by Pino and Humboldt type points. The next phase in the high Sierra chronology, which dates from 2000 B.C. to 500 A.D. is the Martis phase, named after the Martis Valley. The Martis phase is characterized by the widespread use of basalt for stone tools, large roughly shaped projectile points of the Martis type, atlatl weights, manos, milling stones, bowl mortars, cylindrical pestles, and many flake scrapers. The Martis phase is of Great Basin origin, distributed from the western Great Basin to the Central Valley. The Martis phase may represent Maidu prehistory, including Nisenan. The Kings Beach phase followed the Martis phase and is characterized by the use of obsidian and silicate stone tools, small projectile points, indicating a shift from the atlatl, or throwing stick, to the use of the bow and arrow, scrapers, and bedrock mortars. The Kings Beach phase dates from 500 A.D. to 1200 A.D. and is considered ancestral to the ethnographic Washo.

The first extraction of a stratified site in the Georgetown region was conducted in 1970. The site is located west of Foresthill, the Spring Garden Ravine site (PLA-101), which dates to 1400 B.C. Three strata were identified at the site. The oldest, Horizon C, contained large slate and basalt projectile points of the Martis type, atlatl weights, bowl mortars, milling stones, and many core tools. From the extraction conducted in 1970 came evidence that, prehistorically, the environment of the region may not have been as wooded as the landscape presently is today.

Between 1908 and 1910, J.C. Hawver discovered the remains of between 30 to 40 people with associated artifacts, which may be at least 2,500 years old at the Cool Limestone Quarry, northwest of Georgetown. According to the Cultural Resources Study, the area was assumed to have been settled by groups of people of unknown origins who possess both Martis and Central Valley traits by 1000 B.C. During the period of 1000 B.C., the bow and arrow were introduced, at approximately 600 A.D. through 800 A.D., and the mortar and pestle were more intensively used after 1400 A.D. Permanent villages were established by 1 A.D.

Ethnographic Overview

The project site is located within the ethnographic territory of the Nisenan (also known as the Southern Maidu). The Nisenan are part of the California Penutian linguistic family, which is further divided into four subfamilies: Wintuan, Maiduan, Yokutsan, and Utian. The Nisenan belong to the Maiduan subfamily, along with the Maidu and Konkow. The territory of the Nisenan, which includes the drainage of the American River, extended from the crest of the Sierra Nevada in the east to the Sacramento River in the west; as far south as the Cosumnes River; and north to the divide of the North Fork of the Yuba River and Middle Fork of the Feather River. For a more detailed ethnographic overview of the project area, see Chapter 4.12, Tribal Cultural Resources, of this EIR.

Historic Overview

The history of the project area is directly related to the Gold Rush of the 1850s. In January 1848, gold was discovered in Coloma. One year later, thousands of people arrived for the opportunity to discover gold, many settled in the townsites of Clarksville, the nearest historic community to the project site. Clarksville was located approximately six miles east of Folsom. Of particular importance to the project area is the Sacramento and Placerville Emigrant Road and, the much later, Lincoln Highway, which passed through the project area.

Shingle Springs, to the east, was an early Gold Rush mining camp. According to historian Erwin Gudde, gold was discovered at Shingle Springs in 1848. A shingle mill was erected in 1849 at the fledgling townsite and the camp took the name Shingle Springs. The first permanent home was built in 1850 and a post office was established in 1853. Three gold mills were operating in and around Shingle Springs in the 1800s. Lumps of gold worth ten thousand dollars were extracted from Gray Mine. Mining continued in the immediate area of the townsite, however, ranching and commerce became the principal economic occupations of most of the citizens. In 1866, hotels were located about every mile between Shingle Springs and White Rock to the west.

The Sacramento and Placerville Wagon Road was used by emigrants and miners between 1848 and 1850. The route was improved to accommodate wagons for the emigration of 1849 and 1850. In 1860 through 1861, the wagon road is believed to have been the route selected by the Pony Express riders. However, there is evidence that conflicts with this notion, suggesting that the route followed the alignment of present-day Green Valley Road to Folsom. Numerous waystations or hotels were built along the route, such as Prairie House, the What Cheer House, Wellington House, White Rock Springs Ranch Hotel, Aldridge Ravine House, Bar E Ranch, Carson Creek House, Mormon Tavern, Clarksville, Atlantic House, Ohio House, and the Deer Creek House. Additionally, over 20 more hotels existed between the Deer Creek House and Placerville. In the late 1890s, the State of California created a highway commission and state funding became available for road improvements, including the Sacramento-Lake Tahoe Wagon Road. During the early 1910s, Folsom prisoners were used to help improve sections of the old wagon road between Whiterock and Mud Springs.

The 19th century was a foremost period of invention and experimentation in mining machinery and tools. The early gold rush produced simple tools, such as the pan, rocker, spoon, and knife, whereas the 19th century produced more advanced technology such as the stamp mill, ball mill, hydraulic monitor and elevator. Thousands of miles of streams were mined in the Sierra foothills using the technique of ground sluicing, which consisted of washing gravel deposits by hand, digging gravels into sluices and discarding the larger cobbles. By the late-19th century, ground sluicing and hydraulic placer gold mining had been surpassed by dredging. Gold placer mining was observed in the two primary drainages that bisect the project site.

Project Site History and Current Uses

The project site's current landscape is comprised of open, mostly undeveloped land that consists of parcels of seasonal grasses and scattered oak trees. The project site also includes an intermittent drainage on the site, north of Country Club Drive. Native vegetation in the project region consists of California grasslands with central oak woodland features that are still observable today. The project site includes interior live oak, scrub oak, blue oak, toyon, manzanita, valley oak, California blackberry, yerba santa, California buckeye, and redbud.

The project area and immediate vicinity were used primarily for grazing until the late 1950s, when residential housing development began in Cameron Park. While large communities immediately adjacent to the project did not exist in the 19th century, there were, however, many small mining camps and post offices in the immediate area. The State of California declared the old emigrant and stage road a state highway in 1910 and in 1914 it was adopted as part of the Lincoln Highway system. Land ownership within the project site in the 1890s was divided between A. Russi, W. Johnson, Morrison, and Garsten.

The project site was not only used for agriculture but also used for dry-land farming, particularly crops, such as hay and barley. Evidence of piled fieldstone was identified throughout the project area, which provides evidence that pastures were cleared of vegetation and stone and cultivated in hopes of winter rains germinating seed to establish feed for livestock. The other land within the project site was used as a complex series of roads that were developed in the early 1850s through the 1930s. The main users of this road were emigrants on foot, horse, and wagon, and later for stagecoaches and large freight wagons. During the 1860s, the older emigrant roads were slowly being replaced or improved by local governments. This was the case for roads leaving Mormon Tavern and heading east through Clarksville and Placerville. Roads were further improved in the early 1900s to accommodate automobiles. In addition to the emigrant roads there was the Overland Pony Express, which was in operation for only 18 months between April 1860 and October 1861. Although operation of the Pony Express was short lived, it made a substantial mark on the American West and the movement of mail between the east and west coasts.

Known Cultural and Archaeological Resources

A records search of the California Historical Resources Information System (CHRIS) was completed at the North Central Information Center (NCIC) at Sacramento State University, on November 14, 2017 for the Bass Lake Road and Country Club Drive Intersection Project, which included much of the project site. Two additional record searches were conducted in June 2022 and August 2023. Further details of the records searches are provided in the Method of Analysis subsection below. Based on the record searches, nine previous cultural resource studies have been conducted within the vicinity of the project site. Of the previous studies, three studies encompassed the areas proposed for development as part of the proposed project. In addition, eight cultural resource studies have been previously conducted within the vicinity of the off-site

sewer alternative alignments. Another three cultural resource studies have been conducted within the vicinity of the proposed off-site water line alignment.

According to the CHRIS record searches and previous cultural resource studies, five known historic and/or archaeological resources occur within 0.25-mile of the project site, including three resources that occur within proximity to the proposed off-site water line alignment (P-09-000807/CA-ELD-000719/H) and another resource that is within proximity to the off-site sewer alignment alternatives (P-09-000809/CA-PLA-000721/H and P-09-001695/CA-ELD-001218H). In addition to the foregoing sites, an additional nine known historic and/or archaeological sites are within proximity to the off-site sewer alignment alternatives. The aforementioned archaeological sites are summarized in Table 4.4-1.

Table 4.4-1
Historic and Archaeological Resources in Project Vicinity

Resource Number / Trinomial	Resource Description	General Location
P-09-000807/CA-ELD-000719/H/BLR-1	Historic Cemetery with Seven Internments	Within 0.25-mile of APE and Proximate to Off-Site Water Line Alignment
P-09-000807/CA-ELD-000719/H/BLR-2	Single Bedrock Mortar Pit	Within 0.25-mile of APE and Proximate to Off-Site Water Line Alignment
P-09-000807/CA-ELD-000719/H/BLR-3	Mining Ditch Complex with Rock Dam	Within 0.25-mile of APE and Proximate to Off-Site Water Line Alignment
P-09-000809/CA-PLA-000721/H & P-09-001695/CA-ELD-001218H	Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway	Within 0.25-mile of APE and Proximate to Off-Site Sewer Alignment Alternatives
P-09-001590/CA-ELD-001201H	Altdoerfer Ranch House, Holdrige Ranch, Bell Ranch, Bar J Ranch	Within 0.25-mile of APE
P-09-000688/CA-ELD-000600/H	Banholzer and Russi Ranches	Proximate to Off-Site Sewer Alignment Alternatives
P-09-000805/CA-ELD-717	Prehistoric Milling Site	Proximate to Off-Site Sewer Alignment Alternatives
P-09-001670/--	Easternmost Portion of the Proposed Mormon Hill Historic District	Proximate to Off-Site Sewer Alignment Alternatives
P-09-005352/--	Rock Feature	Proximate to Off-Site Sewer Alignment Alternatives
P-09-005353/--	Rock Pile	Proximate to Off-Site Sewer Alignment Alternatives
P-09-005354/--	Placer Tailings	Proximate to Off-Site Sewer Alignment Alternatives
P-09-005363/--	Dry-Laid Partial Rock Wall	Proximate to Off-Site Sewer Alignment Alternatives
P-09-005365/--	Spring House	Proximate to Off-Site Sewer Alignment Alternatives
P-09-005510/--	Dry-Laid Partial Rock Wall	Proximate to Off-Site Sewer Alignment Alternatives

Source: Historic Resource Associates, 2024.

Of the 14 known resources that occur within the project vicinity, HRA determined that four resources occur either within or in immediate proximity to the project site, off-site sewer alignment

alternatives, and/or off-site water alignment. The known historic and/or archaeological resources that occur within or in immediate proximity to areas that could be disturbed as part of project construction activities include the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway (P-09-000809/CA-PLA-000721/H and P-09-001695/CA-ELD-001218H), a multi-component archaeological resource (P-09-000807/CA-ELD-000719/H/BLR-2 and CA-ELD-000719/H/BLR-3), and a prehistoric milling site (P-09-000805/CA-ELD-717), each of which is discussed further below.

Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway: P-09-000809/CA-PLA-000721H and P-09-001695/CA-ELD-001218H

The Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway represents a group of historic linear transportation routes dating from the 1850s through the 1940s, including portions of the 1850s emigrant road, between Sacramento and Placerville; improvements to the 1850s emigrant road during the late 1850s through the 1860s; and a segment of the Lincoln Transcontinental Highway, between Clarksville to just east of Bass Lake Road. Within the project site, a dirt road extending from Old Country Club Road to Bass Lake Road comprises a portion of the resource, while segments of the off-site sewer alignment alternatives that would be routed along Old Bass Lake Road (Lincoln Highway) comprise other portions of the resource. The road segments are distinguished by roadbeds constructed by hand tools, horse-drawn scrapers, and later gas- or diesel-propelled mechanical equipment. While the pre-1900 roads have a dirt surface, the Lincoln Highway segment (Old Bass Lake Road) is paved with either macadam or asphalt, from present-day Bass Lake Road towards the west for approximately a third of a mile.

Historically significant character-defining features of the pre-1900s roads, besides the actual roadbed, include dry-laid fieldstone retaining walls and livestock walls that run parallel to portions of each road segment. With regard to Lincoln Highway, historically significant character-defining features include concrete culverts, a concrete arched bridge, fieldstone retaining walls, and a macadam surface. Despite some integrity loss, the intact road segments, as a whole, retain adequate integrity to convey their historical significance. Based upon previous cultural resource surveys of the aforementioned routes dating to the 1980s, the road segments located within the project vicinity reflect a significant chapter in the history of transportation in El Dorado County and Northern California from the mid-19th through the mid-20th century.

Multi-Component Archaeological Site: P-09-000807/CA-ELD-000719/H

The multi-component archaeological resource is located off-site primarily within the east-west intermittent drainage north of Country Club Drive to the east of the project site and is comprised of the sparse residue of historic gold placer mining, structural remains of a former water storage and irrigation system, and a precontact milling or bedrock mortar features. While the historic gold placer mining, water storage, and irrigation features are sparse and generally lack integrity, the precontact site occurs approximately 25 meters to the east of the project site boundary, to the north of the intermittent drainage.

Prehistoric Milling Site: P-09-000805/CA-ELD-717

The prehistoric milling site was recorded in 1990 and occurs off-site to the west of the project site, west of Old Bass Lake Road (Lincoln Highway) and north of an unnamed drainage. The site consists of single mortar cupule in an outcrop of amphibolite schist. In addition to the mortar cupule, HRA discovered a very sparse refuse scatter of discarded ceramics and glass, along with

shovel blade and several other pieces of iron. The refuse scatter occurs approximately 40 meters to the northeast of the mortar cupule.

4.4.3 REGULATORY CONTEXT

Federal, State, and local governments have developed laws and regulations designed to protect significant 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 and archaeological resources of national, regional, State, and local significance.

Federal Regulations

The following are the federal environmental laws and policies relevant to 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 Historical 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 National Register of Historic Places (NRHP). The criteria for determining NRHP eligibility are found in 36 CFR Part 60. Amendments to the Act (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 are eligible to be listed on the NRHP. However, properties under 50 years of age that are of exceptional significance or are contributors to a district could 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 could be individually eligible for listing on the NRHP under any of the above four criteria, or could be listed as contributing to a group of resources that are listed on the NRHP.

A resource could be considered significant in American history, architecture, archaeology, engineering, or culture. Once a resource has been identified as significant and potentially eligible for the NRHP, the resource's historic integrity must be evaluated. Integrity is a function of seven factors: location, design, setting, materials, workmanship, feeling, and association. The factors closely relate to the resource's significance and must be intact for NRHP eligibility.

Historical buildings, structures, and objects are usually eligible under Criteria A, B, and C based on historical research and architectural or engineering characteristics. Archaeological sites are usually eligible under Criterion D, the potential to yield information important in prehistory or history. An archaeological test program may be necessary to determine whether the site has the potential to yield important data. The lead federal agency makes the determination of eligibility based on the results of the test program and seeks concurrence from the State Historic Preservation Officer (SHPO).

Effects to NRHP-eligible resources (historic properties) are adverse if the project may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register 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 resources.

California Environmental Quality Act and California Register of Historic Places

State historic preservation regulations affecting the proposed project include the statutes and guidelines contained in CEQA (Public Resources Code [PRC] Sections 21083.2 and 21084.1 and Sections 15064.5 and 15126.4[b] of the CEQA Guidelines). CEQA requires lead agencies to consider the potential effects of a project on historic resources and unique archaeological resources. A "historic resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant (PRC Section 5020.1). Under Section 15064.5 of the CEQA Guidelines, a resource is considered "historically significant" if one or more of the following California Register of Historic Resources (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 could include archeological resources that meet the criteria listed above, CEQA also requires consideration of "unique archaeological resources." If a site meets the definition of a unique archaeological resource, the site must be treated in accordance with the provisions of PRC Section 21083.2. Under PRC Section 20183.2(g), an archaeological resource is considered "unique" if it:

1) Is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory;
2) Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
3) Has a special kind or particular quality such as oldest, best example, largest, or last surviving example of its kind;
4) Is at least 100 years old and possesses substantial stratigraphic integrity; or
5) Involves important research questions that can be answered only with archaeological methods.

CEQA also includes specific guidance regarding the accidental discovery of human remains. Specifically, CEQA Guidelines Section 15064.5(e) requires that if human remains are uncovered, excavation activities must be stopped and the county coroner be contacted. If the county coroner determines that the remains are Native American, the coroner must contact the Native American Heritage Commission (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 Section 15064.5 of the CEQA Guidelines.

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.

Local Regulations

The following are El Dorado County's environmental policies that are intended to protect cultural resources by mitigating the potential impacts of new development in areas containing important archaeological or historic resources.

El Dorado County General Plan

The following goals, objectives, and policies from the El Dorado County General Plan related to cultural resources are applicable to the proposed project.

Goal 7.5 CULTURAL RESOURCES: Ensure the preservation of the County's important cultural resources.

Objective 7.5.1 PROTECTION OF CULTURAL HERITAGE: Creation of an identification and preservation program for the County's cultural resources.

Policy 7.5.1.1 The County shall establish a Cultural Resources ordinance. This ordinance shall

provide a broad regulatory framework for the mitigation of impacts on cultural resources (including historic, prehistoric and paleontological resources) by discretionary projects. This ordinance should include (but not be limited to) and provide for the following:

A. Appropriate (as per guidance from the Native American Heritage Commission) Native American monitors to be notified regarding projects involving significant ground disturbing activities that could affect significant resources.
B. A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.
C. Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.
D. A definition of cultural resources that are significant to the County. This definition shall conform to (but nor necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CPHR) and society of Vertebrate Paleontology.
E. Formulation of project review guidelines for all development projects.
F. Development of a cultural resources sensitivity map of the County.

Policy 7.5.1.2 Reports and/or maps identifying specific locations of archaeological or historical sites shall be kept confidential in the Planning Department but shall be disclosed where applicable.

Policy 7.5.1.3 Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento,

the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.

Policy 7.5.1.4 Promote the registration of historic districts, sites, buildings, structures, and objects in the National Register of Historic Places and inclusion in the California State Office of Historic Preservation's California Points of Historic Interest and California Inventory of Historic Resources.

Policy 7.5.1.6 The County shall treat any significant cultural resources (i.e., those determined California Register of Historical Resources/National Register of Historic Places eligible and unique paleontological resources), documented as a result of a conformity review for ministerial development, in accordance with CEQA standards.

Objective 7.5.2 VISUAL INTEGRITY: Maintenance of the visual integrity of historic resources.

Policy 7.5.2.4 The County shall prohibit the modification of all National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) listed properties that would alter their integrity, historic setting, and appearance to a degree that would preclude their continued listing on these registers. If avoidance of such modifications on privately owned listed properties is deemed infeasible, mitigation measures commensurate with NRHP/CRHR standards shall be formulated in cooperation with the property owner.

Policy 7.5.2.5 In cases where the County permits the demolition or alteration of an historic building, such alteration or new construction (subsequent to demolition) shall be required to maintain the character of the historic building or replicate its historic features.

Bass Lake Hills Specific Plan

The BLHSP was adopted November 7, 1995, as a coordinated planning program consistent with the El Dorado County General Plan for the development of 1,196 acres located in eastern El

Dorado County. The plan area is located approximately three miles east of the Sacramento County/El Dorado County line, within the underdeveloped eastern portion of El Dorado Hills and adjacent to the west end of Cameron Park. US 50 forms the southern Plan area boundary, and Bass Lake Road transects the area in a north/south direction. Bass Lake is located approximately 0.25-mile north of the plan area. The project site is located within the southern portion of the BLHSP area. Section 7.2 of the BLHSP establishes the following cultural resources standards related to sensitive archeological sites:

1. The County shall require site-specific archaeological investigations for all development proposals which may impact sensitive archaeological sites described in the EIR.
2. Mitigation measures to protect archaeological sites shall be implemented through conditions in development permits and shall require on-site monitoring by qualified personnel during excavation work in areas identified as sensitive for archaeological resources. Development activity shall cease whenever artifacts or skeletal remains are discovered until arrangements can be made to avoid or otherwise protect the site. Identified archaeological sites shall be protected through non-building setbacks to be recorded on the subdivision map.
3. The local Indian Council shall be notified of all discretionary development application for review and comment.

4.4.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to cultural 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 cultural resources is considered significant if the proposed project would:

- 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 a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Disturb any human remains, including those interred outside of dedicated cemeteries;
- Have the potential to cause a physical change which would affect unique ethnic cultural values; or
- Restrict existing religious or sacred uses within the potential impact area.

Method of Analysis

The information contained in the analysis is primarily based on the Cultural Resources Study prepared by HRA, which included a CHRIS records search at the NCIC, literature and map review, and a field survey. The foregoing components of the Cultural Resources Study are discussed further below.

North Central Information Center Records Search

A CHRIS records search was completed at the NCIC at Sacramento State University, on November 14, 2017 for the Bass Lake Road and Country Club Drive Intersection Project, which included much of the project site, and was followed by two additional record searches that included the project site, one in June 2022 and another on August 14, 2023. The records search

was conducted to identify all previously recorded cultural resources, including prehistoric and historic archaeological sites, historic buildings, structures, objects, or districts within and near the proposed project. The record search required a review of pertinent NCIC base maps that reference cultural resource survey and excavation reports, recorded prehistoric and historic archaeological sites, historic-period maps, and literature for the project vicinity in western El Dorado County.

To identify historic properties, the CHRIS search included a review of the California Built Environment Resource Directory, which includes properties listed on the NRHP, California Historical Landmarks, California Points of Historical Interest, the CRHR, as well as certified Local Government surveys that have undergone Section 106 review. The record searches entailed a review for all previously recorded cultural resources within an approximate 0.25-mile radius of the proposed project's area of potential effects (APE).

Based upon the CHRIS records search, nine cultural resource studies have been conducted within the project vicinity: Peak & Associates (1985, #03668), Foster and Foster (1990, #03729), HRA (2017, #13308), Jones & Stokes (2000, #03756), Peak & Associates, Inc. (2007, #10136), Windmiller (2010, #09248), Applied EarthWorks, Inc. (2013, #11191), ECORP Consulting, Inc. (2013, #11332), and Windmiller (2014, #11507). The studies conducted by HRA, Foster and Foster, and Applied EarthWorks, Inc. encompassed the areas proposed for development as part of the proposed project. In addition, the following eight cultural resource studies have been previously conducted within the vicinity of the off-site sewer alternative alignments: Peak (1988, #003730), Prichard and Peak (1990, #003733), Foster and Foster (1992, #003674), Peak (2007, #009248), Jensen (2007, #009860), Armstrong et al. (2013, #011191), Windmiller (2013, #013166), and Supernowicz (2017, #013308). The following three cultural resource studies have been conducted within the vicinity of the proposed off-site water line alignment: Foster and Foster (1990, #003729), Green (2004, #0074644), and Jensen (2006, #007771).

Literature and Map Review

HRA conducted research to obtain archaeological, ethnographic, historical, and environmental information regarding the project site, off-site water alignment, and off-site sewer alignment alternatives. The records search included a review of the following sources:

- Historic U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps (1944,1957, 1961, 1972, 1976, and 1980);
- Aerial photographs: 1952, 1966, 1998, 2005, and 2017;
- Historic General Land Office (GLO) survey plat maps;
- Archival research at the Sacramento State University Library;
- El Dorado County Historical Museum; and
- HRA research library.

Field Survey Methods

HRA performed an archaeological field survey over a series of site visits from June 2022 through October 2023. The survey methodology was similar to previous cultural resource studies conducted within the project vicinity and included a physical inspection of all previously identified or recorded cultural resources in previous studies. In addition, the field survey encompassed all areas of the project site determined to be of high archaeological sensitivity and areas that appeared to have been subjected to little or no survey coverage.

Project-Specific Impacts and Mitigation Measures

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

4.4-1 Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. Based on the analysis below and even with implementation of mitigation, the impact is *significant and unavoidable*.

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. As previously noted above, cultural resources determined eligible for the NRHP by a federal agency are automatically eligible for the CRHR.

Given that development of the Project Development Area and Program Study Area would result in the construction of similar land uses on contiguous parcels, the following discussion applies to the potential for both components to cause a substantial adverse change in the significance of a historical resource, as defined by CEQA Guidelines Section 15064.5. In addition, the discussion includes consideration of the proposed off-site water line alignment and off-site sewer line alignment alternatives.

Project Development Area and Project Buildout

As previously discussed, of the known historic sites identified as part of the CHRIS records search and literature and map review (see Table 4.4-1), only the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway (P-09-000809/CA-PLA-000721/H and P-09-001695/CA-ELD-001218H) occurs within proximity to areas that could be disturbed as part of project construction. All other historic resources are located outside of areas that could be potentially impacted by construction activities associated with the proposed project. Within the project site, a dirt road extending from Old Country Club Road to Bass Lake Road within the Project Development Area and Program Study Area comprises a portion of the Sacramento-Placerville Road, while segments of the off-site sewer alignment alternatives that would be routed along Old Bass Lake Road (Lincoln Highway) comprise other portions of the resource.

Although the Cultural Resources Study concluded the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway does not meet CRHR Criterion 2, which applies only to cultural resources associated with individuals whose specific contributions to history can be identified and documented as significant in our past, the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway potentially meets other criteria for listing. For eligibility under CRHR Criterion 1, a resource must be associated with one or more events or historic themes of importance. According to the Cultural Resources Study, while some of the segments of the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway appear to have been entirely destroyed, other

segments still retain adequate integrity to convey their historical significance and appear to be eligible for listing under CRHR Criterion 1, as the road segments have direct association with significant events in the history of El Dorado County in regards to emigration, commerce and trade, and later tourism.

In addition, under CRHR Criterion 3, a resource could be eligible for listing if the resource illustrates important concepts in design and planning, if the landscape reflects an important historical trend, is distinguished in design or layout, and is the result of skilled craftsmanship. The Cultural Resources Study found that the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway potentially meets CRHR Criterion 3 as the resource possesses important information regarding engineering, technology, and design of some of the State's oldest transportation features.

Finally, to be eligible under CRHR Criterion 4, a resource must have yielded or have the potential to yield important information. The Cultural Resources Study found that the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway potentially meets CRHR Criterion 4 as the resource has important scientific or engineering data regarding pioneer transportation of people and goods between Sacramento and Placerville.

As discussed further in the Project Description chapter of this EIR, the proposed project would include construction of a future private road, which would extend through the southern portion of the project site from Old Country Club Drive to the surface parking area associated with the hotel/event center. The majority of the above-described historical road would not be impacted by development of the new private road. However, the future private road would impact a small portion of the historic road segment. In addition, the proposed surface parking area associated with the hotel/event center would encroach on the historic road for approximately 100 feet east of Bass Lake Road.

Within the off-site sewer alignment alternatives, the proposed project could result in a potential impact to the Lincoln Highway portion of the resource as a result of excavation or trenching activities associated with the off-site sewer line and use of heavy equipment along Old Bass Lake Road (Lincoln Highway), which could damage the old macadam surfaces. Trenching could potentially impact the character-defining features of the road if the road prism is widened or if the road trenching or excavation is not returned close to its previous surface condition.

Based on the above, the proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. Thus, a ***significant*** impact could occur.

Mitigation Measure(s)

Mitigation to address potential impacts related to the historic road segments of the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway would include completion of a Phase II Archaeological Testing Program in order to recover and document any historical artifacts that lie within the road prism, further evaluation of any historical artifacts found, and the placement of temporary drip fencing in order to

protect the historic road segment that occurs within the project site. However, construction of the future private road and surface parking area associated with the hotel/event center cannot feasibly avoid the entirety of the on-site segment of the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway. Thus, even with implementation of the following mitigation measures, the impact would remain *significant and unavoidable*.

Project Development Area and Project Buildout

4.4-1(a) *Prior to initiation of ground-disturbing activities, a qualified cultural resources specialist shall conduct a Phase II Archaeological Testing Program using a metal detector within any of the historic road segments delineated in the Cultural Resources Study prepared for the proposed project by Historic Resource Associates (HRA) that have an earthen surface in order to recover and document any historical artifacts that lie within the road prism. A report summarizing the results of the Phase II Archaeological Testing Program shall be submitted for review and approval to the El Dorado County Planning and Building Department. If historical artifacts are not found, further mitigation is not required.*

If historical artifacts are found, the qualified archaeologist shall assess the significance of the find in accordance with criteria for listing established by the National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) and make recommendations for further evaluation and treatment, as necessary, which could include, but not be limited to, avoidance of the historical artifact(s) and preservation in place, planning construction to avoid historical artifact(s), deeding the historical artifact(s) into permanent conservation easements; capping or covering the historical artifact(s) with a layer of soil before building on the artifact(s), or planning parks, greenspace, or other open space to incorporate the historical artifact(s). The recommendations shall be documented in the project record and implemented by the project applicant.

4.4-1(b) *Prior to the initiation of ground-disturbing activities, a professional archaeologist shall observe the placement of temporary drip fencing in order to protect the portions of the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway that occur within the project site and would be avoided by construction of the future private road and surface parking area associated with the proposed hotel/event center. If surfacing is needed to establish a hiking, equestrian, or bike trail on the historic road, surface materials shall be compatible in color and material to the existing road surface. Verification of the foregoing requirement shall be confirmed by the El Dorado County Planning and Building Department and County Department of Transportation.*

4.4-1(c) *Prior to construction of the off-site sewer line alignments to the west of Bass Lake Road, a professional archaeologist/historian shall provide preconstruction training to all contractors and staff who will participate in the construction of the buried sewer line within or near the prism of*

the historic road segments. Documentation of the training (i.e., a sign-in sheet) shall be retained at the project site and shall be submitted with applicable reports to the El Dorado County Planning and Building Department.

4.4-1(d) *Prior to approval of the final improvement plans for the off-site sewer line alignments, the plans shall demonstrate that the historic macadam surface along Old Bass Lake Road is fully avoided. The final off-site sewer line improvement plans shall be reviewed by the El Dorado County Planning and Building Department, County Department of Transportation, and a qualified historian/archaeologist, who shall confirm that the proposed sewer line design and non-construction buffers are sufficient to preserve the historic macadam surface intact.*

4.4-2 Cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines Section 15064.5. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Development of the Project Development Area and Program Study Area would result in the construction of similar land uses on contiguous parcels. Thus, the following discussion applies to the potential for both components to cause a substantial adverse change in the significance of a unique archeological resource, as defined by CEQA Guidelines Section 15064.5. In addition, the discussion includes consideration of the proposed off-site water line alignment and off-site sewer line alignment alternatives.

Project Development Area and Project Buildout

As previously discussed, of the known archaeological sites identified as part of the CHRIS records search and literature and map review (see Table 4.4-1), only the multi-component archaeological site (P-09-000807/CA-ELD-000719/H/BLR-2 and CA-ELD-000719/H/BLR-3) and prehistoric milling site (P-09-000805/CA-ELD-717) occur within or in immediate proximity to areas that could be disturbed as part of project construction. Each resource is discussed further below, followed by a discussion of the potential for unknown archaeological resources to occur within the project site and off-site improvement areas.

Multi-Component Archaeological Site

The multi-component archaeological resource is located off-site primarily within the east-west intermittent drainage north of Country Club Drive to the east of the project site. According to the Cultural Resources Study, the historic gold placer mining features of the resource are sparse and generally lack integrity, as do the resource's water storage and irrigation features. However, the resource's precontact milling or bedrock mortar features could be eligible for listing under CRHR criteria.

Given that the multi-component archaeological resource is located off-site, the proposed project is not anticipated to result in direct impacts to the precontact milling or bedrock mortar features. In addition, the resource is located well outside of the northern boundary of the Program Study Area. As such, future development of the

Program Study Area would not result in potential impacts to the resource. However, as the final improvement plans have not yet been prepared, based on the resource's close proximity to the easternmost boundary of the Project Development Area, indirect effects associated with Project Development Area construction staging activities and/or inadvertent off-site ground disturbance cannot be entirely ruled out. Thus, development of the Project Development Area could cause a substantial adverse change in the significance of the multi-component archaeological resource's precontact milling or bedrock mortar features, and a significant impact could occur.

Prehistoric Milling Site

The prehistoric milling site occurs off-site to the west of the project site, west of Old Bass Lake Road (Lincoln Highway) and north of an unnamed drainage. Given that the archaeological resource is located well outside the boundaries of the project site, development of the Project Development Area and Program Study Area would not result in a potential impact to the resource. In addition, as shown in Figure 3-16 of the Project Description chapter of this EIR, installation of the off-site water line would occur within or adjacent to the existing right-of-way (ROW) of Bass Lake Road, and thus, would not potentially impact the prehistoric milling site. Additionally, the off-site sewer line alternatives would be routed along Old Bass Lake Road (Lincoln Highway), as shown in Figure 3-18 of the Project Description chapter of this EIR. Thus, installation of the off-site sewer line would similarly avoid potential impacts to the archaeological resource. Thus, development of the proposed project would not cause a substantial adverse change in the significance of the prehistoric milling site, and a less-than-significant impact would occur.

Unknown Archaeological Resources

The potential for encountering previously unidentified buried archaeological resources within the project site and off-site utility line alignments cannot be entirely ruled out, as the proposed project would include ground-disturbing activities, such as excavation associated with construction of the proposed structures, as well as new building foundations and trenching for new utility lines. According to the Cultural Resources Study's review of literature, local ethnographic settlement and subsistence patterns, and history of the project vicinity, the project site includes areas of high archaeological sensitivity. In addition, the project site is located in a region sensitive for prehistoric and historic-era archaeological resources, such as resources associated with the ancestral Nisenan culture, whose territory encompassed the project site, as well as resources associated with gold mining within the region.

Given the sensitivity of the project site, unknown archaeological resources could exist in the project vicinity beneath the ground surface and have the potential to be uncovered during ground-disturbing activities at the project site and off-site utility alignment areas. In the event that project ground-disturbing activities encounter such resources, a significant impact could occur.

Conclusion

Based on the above, the proposed project could cause a substantial adverse change in the significance of a unique archeological resource pursuant to CEQA Guidelines Section 15064.5, 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.

Project Development Area and Project Buildout

4.4-2(a) *Prior to initiation of ground-disturbing activities associated with the Project Development Area, the project contractor shall install drip-line fencing along the eastern boundary of the Project Development Area, between the intermittent drainage and just north of the multi-component archaeological site (P-09-000807/CA-ELD-000719/H/BLR-2 and CA-ELD-000719/H/BLR-3). The foregoing requirement shall be noted on the final improvement plans and subject to review and approval by the El Dorado County Planning and Building Department.*

4.4-2(b) *Prior to initiation of ground-disturbing activities, a qualified archaeologist shall conduct a short awareness training session for all construction workers and supervisory personnel. The course shall explain the importance of, and legal basis for, the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event cultural resources or human remains/burials are uncovered during construction activities, including work curtailment or redirection and to immediately contact their supervisor and the archaeological monitor. The worker education session shall include visuals of artifacts (prehistoric and historic) that might be found in the project vicinity and take place on the construction site immediately prior to the start of construction. Documentation of the training (i.e., a sign-in sheet) shall be retained at the site and shall be submitted with applicable reports to the El Dorado County Planning and Building Department.*

4.4-2(c) *If archaeological resources are discovered during project construction, then all work must halt within a 100-foot radius of the discovery. A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologists, shall be called to evaluate the significance of the find. Work shall not continue at the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the NRHP/CRHR. If a potentially eligible resource is encountered, then the archaeologist and El Dorado County shall arrange for either 1) total avoidance of the resource, if possible; 2) test excavations or total data recovery; or 3) other alternative forms of mitigation. The determination shall be formally documented in writing and submitted to El Dorado County as verification that the provisions in CEQA for managing unanticipated discoveries have been met.*

4.4-3 Disturb any 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*.

Development of the Project Development Area and Program Study Area would result in the construction of similar land uses on contiguous parcels. Thus, the following discussion applies to the potential for both components to disturb any human remains, including those interred outside of dedicated cemeteries. In addition, the discussion includes consideration of the proposed off-site water line alignment and off-site sewer line alignment alternatives.

Project Development Area and Project Buildout

The proposed 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 within the project site, as well as in off-site areas. As previously discussed, the project site and off-site utility alignments are located in an area sensitive for prehistoric archaeological resources, such as those associated with the ancestral Nisenan culture, whose territory encompassed the project site. Precontact sites often also contain human remains.

While field surveys conducted as part of the Cultural Resources Study did not detect human remains, the potential for human remains to be discovered during project construction cannot be eliminated given the known precontact occupation of the project vicinity by Native American tribes. In the event that project ground-disturbing activities encounter human remains, a significant impact could occur.

Based on the above, the proposed project could disturb human remains, including those interred outside of formal cemeteries, during project construction. 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.

Project Development Area and Project Buildout

4.4-3 *The following language shall be noted on the project improvement plans, subject to review and approval by the El Dorado County Planning and Building Department.*

If articulated or disarticulated human remains are encountered on the project site or within the off-site water line or off-site sewer line alignments during construction activities, all work within 50 feet of the find must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The El Dorado County Coroner shall be immediately notified. If the Coroner determines the remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall determine and notify a Most Likely Descendant (MLD). Further actions

shall be determined, in part, by the desires of the MLD. The MLD shall be afforded 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendant may request mediation by the NAHC.

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 5, Statutorily Required Sections, of this EIR.

4.4-5 Cause a cumulative loss of cultural resources. Based on the analysis below, the cumulative impact is *less than significant*.

Generally, while some cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For example, impacts to a subsurface archeological find at one project site would not generally be made worse by impacts to a 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 resource represents the last known example of its kind or is part of larger cultural resources such as a single building along an intact historic Main Street. For such a resource, cumulative impacts, and the contribution of a project to them, may be considered cumulatively significant.

Development of the Project Development Area and Program Study Area would result in the construction of similar land uses on contiguous parcels. Thus, the following discussion applies to the potential for both components to cause a cumulative loss of cultural resources. In addition, the discussion includes consideration of the proposed off-site water line alignment and off-site sewer line alignment alternatives.

Project Development Area and Project Buildout

As discussed throughout this chapter, 14 known resources occur within the project vicinity, including the following four resources that occur either within or in immediate proximity to the project site, off-site sewer alignment alternative, and/or off-site water alignment: the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway (P-09-000809/CA-PLA-000721/H and P-09-001695/CA-ELD-001218H), a multi-component archaeological resource (P-09-000807/CA-ELD-000719/H/BLR-2 and CA-ELD-000719/H/BLR-3), and a prehistoric milling site (P-09-000805/CA-ELD-717). While the proposed project would not result in potential impacts to the prehistoric

milling site, the project could cause a substantial adverse change in the significance of the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway and multi-component archaeological resource.

However, this EIR sets forth Mitigation Measures 4.4-1(a) through 4.4-1(d) to ensure that potential impacts to the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway do not occur through incorporation of various requirements, including preparation of a Phase II Archaeological Testing Program to vet areas proposed for disturbance for historical artifacts; prohibit widening of the resource's portion east of Bass Lake Road; require preconstruction training; and avoid impacting the historic macadam surface of Old Bass Lake Road (Lincoln Highway). Similarly, this EIR sets forth Mitigation Measure 4.4-2(a) to ensure that potential impacts to the multi-component archaeological resource do not occur through requiring that drip-line fencing is installed along the eastern boundary of the Project Development Area. Finally, this EIR sets forth Mitigation Measures 4.4-2(b), 4.4-2(c), and 4.4-3 to prevent potential impacts from occurring to unknown archaeological resources and human remains through implementation of standard requirements if such resources are inadvertently encountered during project construction. With implementation of the foregoing mitigation measures, all potential impacts would be reduced to a less-than-significant level.

Similar to the proposed project, future development projects within El Dorado County would be required to implement project-specific mitigation to ensure any potential impacts to identified cultural resources are reduced to a less-than-significant level, where possible. Therefore, given that cultural resource impacts are generally site-specific and each future project within the County would be required to mitigate such impacts, any potential impacts associated with cumulative buildout of the County would not combine to result in a significant cumulative impact.

Based on the above, the proposed project would not contribute to a cumulative loss of cultural resources within the County. Therefore, the cumulative impact would be ***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 project site and off-site improvement areas, and evaluates the extent to which implementation of the proposed project could be affected by unstable earth conditions and various geologic and geomorphic hazards. In addition, the chapter evaluates any adverse impacts on paleontological resources. The impact discussions and mitigation measures presented in each technical section apply to both the project site and the off-site improvement areas, unless otherwise stated.

Information in this chapter is primarily drawn from the Preliminary Geotechnical Engineering Study (see Appendix G),[1] Preliminary Onsite Wastewater Treatment Feasibility Study (see Appendix H),[2] and Preliminary Onsite Wastewater Percolation and Mantle Testing Memorandums (see Appendix I and Appendix J)[3,4] prepared by Youngdahl Consulting Group, Inc. (Youngdahl), and a Preliminary Sanitary Sewer Feasibility Study prepared by CWE/RFE Engineering, Inc. (CWE/RFE) (see Appendix K),[5] as well as the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey conducted by Youngdahl for the project site as part of the Phase I Environmental Site Assessment (ESA) prepared for the proposed project (see Appendix L) [6] and the USDA NRCS Web Soil Survey conducted for the off-site improvement areas.[7] In addition, information was sourced from the El Dorado County General Plan,[8] the El Dorado County General Plan EIR,[9] the Bass Lake Hills Specific Plan (BLHSP),[10] and the associated Bass Lake Road Study Area Program EIR (Bass Lake EIR).[11]

4.5.2 EXISTING ENVIRONMENTAL SETTING

Background setting information regarding the geology, soils, seismicity, and paleontological resources associated with the project site and the surrounding region is provided below.

1 Youngdahl Consulting Group, Inc. *Preliminary Geotechnical Engineering Study for the Town and Country Village.* February 9, 2023.
2 Youngdahl Consulting Group, Inc. *Town and Country Village, El Dorado, Preliminary Onsite Wastewater Treatment Feasibility Study.* December 30, 2021.
3 Youngdahl Consulting Group, Inc. *Town and Country Village, El Dorado, Preliminary Onsite Wastewater Percolation and Mantle Testing*. March 13, 2022.
4 Youngdahl Consulting Group, Inc. *Town and Country Village, El Dorado, Preliminary Onsite Wastewater Percolation and Mantle Testing*. June 30, 2022.
5 CWE/RFE Engineering, Inc. *Preliminary Sanitary Sewer Feasibility Study for Town and Country, El Dorado Hills, CA.* April 3, 2024.
6 Youngdahl Consulting Group, Inc. *Phase I Environmental Site Assessment, The Town and Country Village.* August 2022.
7 United States Department of Agriculture, National Resources Conservation Service. *Web Soil Survey*. Available at: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed April 2024.
8 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.
9 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.
10 El Dorado County. *Bass Lake Hills Specific Plan.* November 7, 1995.
11 El Dorado County. *Bass Lake Study Area Program Environmental Impact Report.* June 14, 1991.

Regional Setting

The project site is located within El Dorado County in the central Sierra Nevada, east of the Central Valley. El Dorado County covers approximately 1,789 square miles (1,145,385 acres) ranging from the residential foothills of El Dorado Hills to the high Sierra Nevada mountain range. El Dorado County is bordered by Placer County to the north, Amador and Alpine counties to the south, and Sacramento County to the west; the state of Nevada borders El Dorado County to the east. El Dorado County is divided geographically into two distinct regions: the west slope of the Sierra Nevada (west slope) and the Lake Tahoe Basin, which are separated by the El Dorado National Forest. The following section describes the geology and seismicity of the project region.

Regional Geology

El Dorado County is located in the Sierra Nevada geomorphic province of California, which is east of the Great Valley province and west of the Range and Basin province. The Sierra Nevada province is characterized by steep-sided hills and narrow, rocky stream channels, which consists of Pliocene and older deposits that have been uplifted as a result of plate tectonics, granite intrusions, and volcanic activity. The southwestern foothills of El Dorado County are composed of rocks of the Mariposa Formation, which includes amphibolite, serpentine, and pyroxenite. The northwestern areas of the County consist of the Calaveras Formation, which includes metamorphic rock such as chert, slate, quartzite, and mica schist, as well as limited serpentine formations. The higher peaks in the County primarily consist of igneous and metamorphic rock, with some granite intrusions.

The project site, as well as the off-site improvement areas, are located within the BLHSP area within El Dorado County. The BLHSP area is located on top of the western fracture zone created by uplifting of the Sierra Nevada Mountains. The western fracture zone trends southeast to northwest along the western base of the Sierra Nevada Mountains and is characterized by plutonic and metasedimentary materials created during the Mesozoic and Paleozoic periods. Frequent rock outcroppings, shallow soils, and rolling terrain are common characteristics associated with the underlying geologic formation of the BLHSP area.

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 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 California Department of Conservation, potentially active faults with Holocene-epoch surface displacement are not known to exist within the project region.[12]

Based on historical seismic activity and fault and seismic hazards mapping, El Dorado County is considered to have relatively low potential for seismic activity, and is located beyond the highly active fault zones of the coastal areas of California. The fault mapping distinguishes faults by period of displacement (i.e., historic, Holocene, late Quaternary, Quaternary, and pre-Quaternary) and location characteristics (i.e., well located, approximately located or inferred, and concealed). The distribution of known faults is concentrated in the western portion of El Dorado County, with several isolated faults in the central area of El Dorado County and the Lake Tahoe Basin. Fault systems mapped in western El Dorado County include the West Bear Mountains Fault, the East Bear Mountains Fault, the Maidu Fault Zone, the El Dorado Fault, the Melones Fault Zone of the Clark, Gillis Hill Fault, and the Calaveras-Shoo Fly Thrust.

According to the County's General Plan EIR, active faults have not been identified in El Dorado County. However, one fault, which is part of the Rescue Lineament–Bear Mountains fault zone, is classified as a well located late-Quaternary fault; this fault represents the only potentially active fault in the County. All other faults located in El Dorado County are classified as pre-Quaternary (inactive).

The probability of fault rupture in El Dorado County is based on Earthquake Fault Zone maps prepared by the California Geologic Survey (CGS) pursuant to the Alquist-Priolo Fault Zoning Act. Earthquake Fault Zones are regulatory zones around active faults. According to the CGS, the County is not located within an Alquist-Priolo Earthquake Fault Zone.

Project Site Characteristics

The project site consists of approximately 60.5 acres located approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road, in El Dorado County. The project site is located in the southern central portion of the BLHSP; the northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region. The project site is currently undeveloped and consists of seasonal grasses and scattered oak trees; there is an intermittent drainage on the site, north of Country Club Drive. Two wells are located near the center of the property. Country Club Drive bisects the northern parcel, and an unimproved dirt road bisects the southern parcels from west to east. It should be noted that the project site also includes several off-site improvement areas associated with the proposed water, sewer, and natural gas lines, bike path, and pedestrian bridge improvements.

The project site consists of two areas: the Project Development Area consists of the northernmost and southernmost 30.3 acres of the project site, and would be developed with two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended stay basis. The Program Study Area consists of the central and easternmost 30.2 acres of the project site and may include future development of additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts.

[12] California Department of Conservation. *Fault Activity Map of California.* Available at: https://maps.conservation.ca.gov/cgs/fam/. Accessed April 2024.

The geologic conditions on the project site and the off-site improvement areas 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, a description of known paleontological resources within the project area is included below.

Site Geology and Subsurface Soil Conditions

The project site and off-site improvement areas are located within the western foothills region of the Sierra Nevada geomorphic province. This portion of the foothills is defined by long belts of metamorphic rock formed by ancient subduction and related volcanism, continental accretion and uplift during the Jurassic and Cretaceous ages. According to the Geologic Map of the Sacramento Quadrangle, California, the subject property and vicinity are underlain by metavolcanic rock. The elevation at the project site ranges between approximately 1,040 and 1,220 feet above mean sea level (amsl). The site contains slopes in various directions and vegetation at the site consists of seasonal grasses and scattered trees. Rock outcroppings are also located throughout the site.

Based on the USDA Web Soil Survey conducted by Youngdahl as part of the Phase I ESA, the project site is underlain by the following soil units:

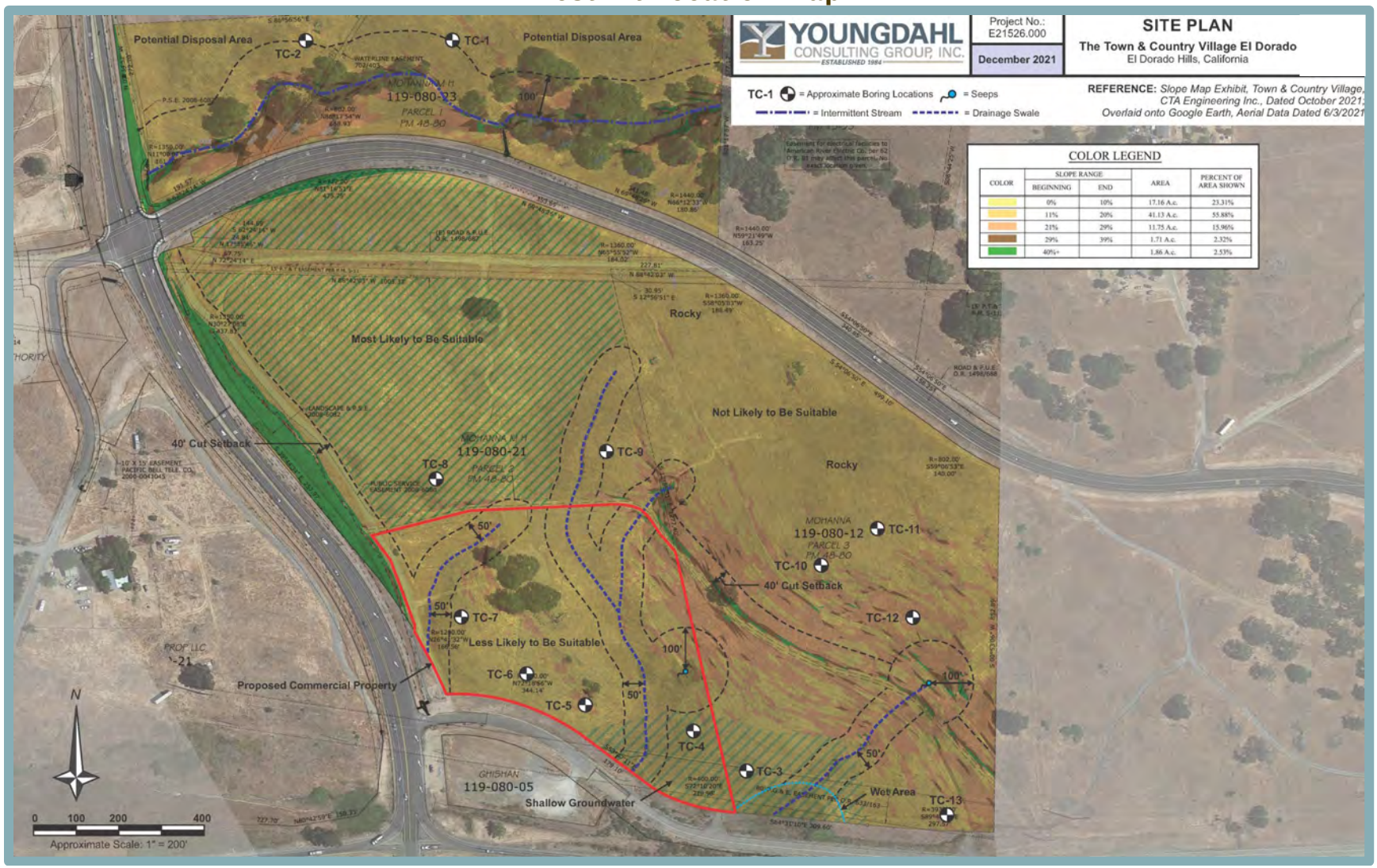
- Auburn Very Rocky Silt Loam (AxD), two to 30 percent slopes – The parent material is residuum weathered from basic igneous rock and/or basic residuum weathered from metamorphic rock. The AxD soil unit is well drained and has a medium runoff class.
- Auburn Silt Loam (AwD), two to 30 percent slopes – The parent material is residuum weathered from basic igneous rock and/or basic residuum weathered from metamorphic rock. The AwD soil unit is well drained and has a low runoff class.
- Auburn Extremely Rocky Silt Loam (AyF), three to 70 percent slopes – The parent material is amphibolite schist. The AyF soil unit is well drained and has a medium runoff class.

The AxD soil unit covers approximately 85.9 percent (52 acres) of the project site, the AwD soil unit covers approximately 12.4 percent (7.5 acres) within the northwest and southwest corners of the project site, and the AyF soil units covers approximately 1.8 percent (one acre) in the northeast corner of the project site. Based on the Web Soil Survey, the AxD, AwD, and AyF soil units consist of silt loam to depths of 14 inches and unweathered bedrock to depths of 18 inches. In addition, according to the USDA NRCS Web Soil Survey conducted for the off-site improvements areas, the off-site improvement areas are underlain by AxD, AwD, and AyF, as well as Argonaut Gravelly Loam (AkC) two to 15 percent slopes.[13] The parent material of AkC is residuum weathered from andesite and/or residuum weathered from metamorphic rock. The AkC soil unit is well drained and has a medium runoff class.

As part of the Preliminary Onsite Wastewater Treatment Feasibility Study, Youngdahl completed the excavation of hand auger borings at 13 test pits on the site (see Figure 4.5-1). Subsurface soil conditions were consistent at the locations evaluated and generally included silty clays and sandy clays to depths of 1 to 3 feet, underlain by moderately weathered bedrock.

[13] United States Department of Agriculture, National Resources Conservation Service. *Web Soil Survey*. Available at: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed April 2024.

Figure 4.5-1
Test Pit Location Map



As part of the Preliminary Onsite Wastewater Percolation and Mantle Testing Memorandum (March 2022), on January 18, 2022, Youngdahl explored the subsurface conditions of the site at five test pits (TP 1 through TP 5) (see Figure 4.5-2).[14] In general, the soil profiles at the project site were found to range from one to 1.5 feet of brown silty clay over 0.5 to 1.5 feet of brown sandy clay, over strong brown intensely weathered and highly fractures metavolcanic rock. Test pit (mantle tests) total depths ranged from four to eight feet to practical refusal depths. Groundwater and caving were not observed during the tests.

On June 9, 2022, Youngdahl advanced an additional five test pits (TP 6 through TP 10) to the east of the previous five test pits (TP 1 through TP 5) (see Figure 4.5-2).[15] Overall, the soil profiles ranged from one foot of brown to reddish brown silty clay over two to seven feet gray green intensely to moderately weathered bedrock. Test pit (mantle tests) total depths ranged from 2.5 to eight feet to practical refusal depths. Groundwater and caving were not observed during the tests.

Seismicity and Ground Shaking

Fault rupture hazards are important near active faults and tend to reoccur along the surface traces of previous fault movements. Known faults do not extend across the project 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. However, the site is located within an area where shaking from earthquake generated ground motion waves should be considered likely.

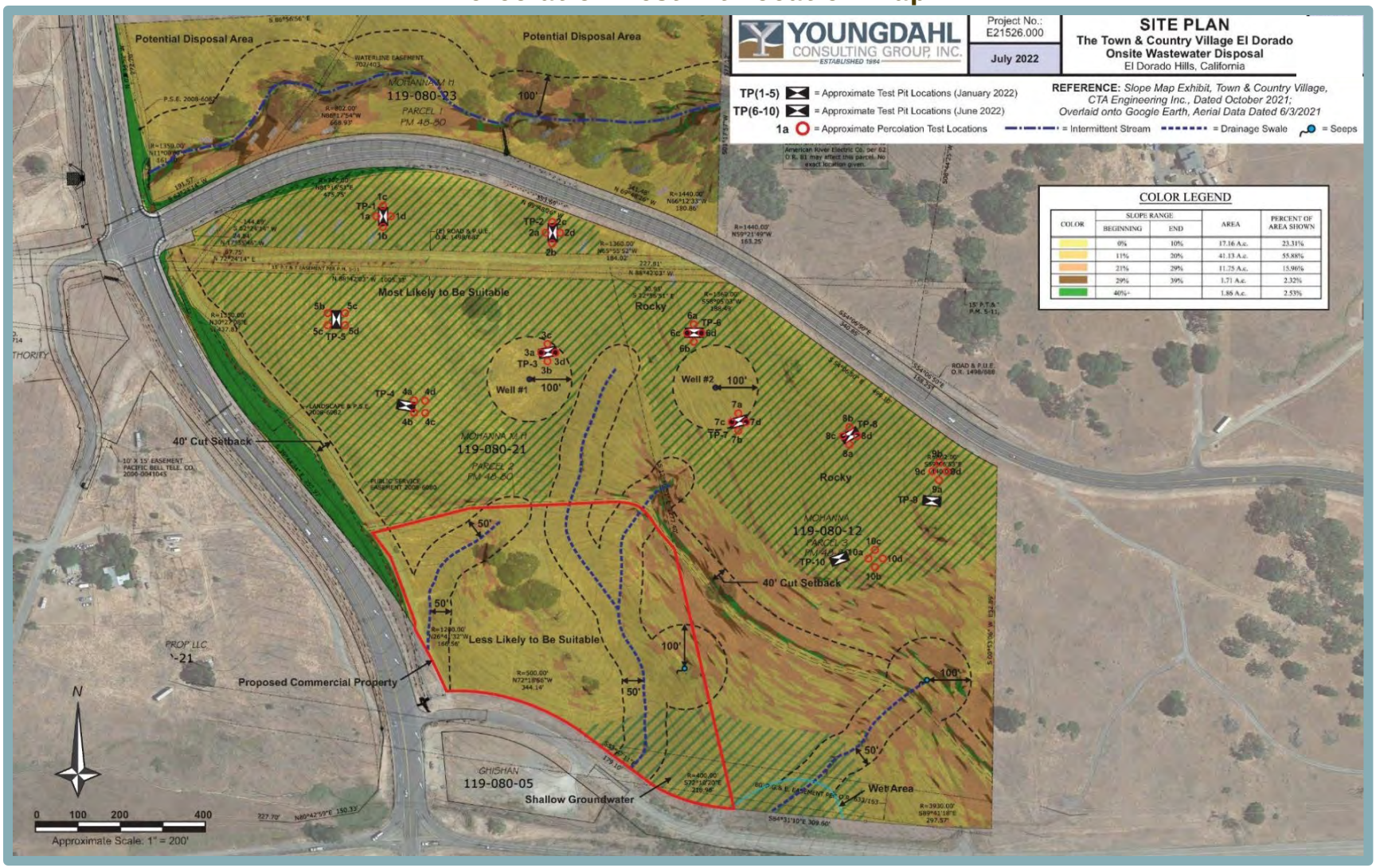
Liquefaction

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. Overall, the project site and off-site improvement areas are not currently mapped for potential liquefaction hazard by the CGS.[16]

According to the Preliminary Geotechnical Engineering Study, a permanently elevated groundwater table is absent, the seismicity in the vicinity of the project is relatively low, and the depths to bedrock is relatively shallow. Therefore, Youngdahl concluded that the potential for seismically induced damage due to liquefaction is considered low.

[14] Youngdahl Consulting Group, Inc. *Town and Country Village, El Dorado, Preliminary Onsite Wastewater Percolation and Mantle Testing*. March 13, 2022.
[15] Youngdahl Consulting Group, Inc. *Town and Country Village, El Dorado, Preliminary Onsite Wastewater Percolation and Mantle Testing*. June 30, 2022.
[16] California Department of Conservation. *California Earthquake Hazards Zone Application.* Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed April 2024.

Figure 4.5-2
Percolation Test Pit Location Map



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 El Dorado County General Plan EIR, soils in western El Dorado County, where the project site is located, generally have a low to moderate shrink-swell potential. Based on the subsurface explorations conducted at the project site, the Preliminary Geotechnical Engineering Study determined that the potential exists for plastic materials, such as clay soils, to be encountered on the site.

Groundwater

According to the Preliminary Geotechnical Engineering Study, due to the shallow depth and low permeability of the underlying rock at the project site, perched water is common to the project area and could be encountered during grading operations. As part of the subsurface explorations conducted as part of the Preliminary Onsite Wastewater Treatment Feasibility Study, Youngdahl encountered perched water at depths of one foot in one of the hand auger borings and at two feet in two of the hand auger borings in the southern portion of the Program Study Area and Project Development Area. The presence of perched water can vary because of many factors such as the proximity to rock, topographic elevations, and the presence of utility trenches.

Paleontological Resources

Paleontological resources include fossil remains, as well as fossil localities and formations, which have produced fossil material in other nearby areas. Paleontological remains are typically found in sedimentary rock formations. According to the El Dorado County General Plan EIR, the County's geology is predominantly igneous (volcanic) in nature and the type of sedimentary deposits where fossil remains might be present are virtually nonexistent. Comprehensive paleontological studies have not been conducted within the County and, as a result, information is not available regarding the sensitivity of certain areas in El Dorado County to contain paleontological resources. While paleontological finds could occur in river and stream gravel deposits within the County, the County's General Plan EIR determined it is unlikely that paleontological resources would be found within the County. Consequently, paleontology is an area of research and concern generally not applicable to the County.

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 Federal Earthquake Hazards Reduction 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 Building Code

The Uniform Building Code (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.

State Regulations

The following are the State environmental laws and policies relevant to soils, geology, seismic hazards, and paleontological resources.

Alquist-Priolo Earthquake Fault Zoning 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 Alquist-Priolo Earthquake Fault Zone 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 Earthquake Fault 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 1690-2699.6) 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 2022 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. The CBSC is updated on a triennial cycle.

Local Regulations

Relevant goals and policies from the El Dorado County General Plan and various other local guidelines and regulations related to soils, geology, seismic hazards, and paleontological resources are discussed in further detail below. Impacts and additional policies regarding naturally occurring asbestos are discussed in Chapter 4.2, Air Quality, Greenhouse Gas Emissions (GHG), and Energy, of this EIR.

El Dorado County General Plan

The following goals and policies from the El Dorado County General Plan are applicable to the proposed project.

Goal 6.3 GEOLOGIC AND SEISMIC HAZARDS: Conserve, enhance, and manage water resource and protect their quality from degradation.

Objective 6.3.1 BUILDING AND SITE STANDARDS: Adopt and enforce development regulations, including building and sit standards, to protect against seismic and geologic hazards.

Policy 6.3.1.1 The County shall require that all discretionary projects and all projects requiring a grading permit, or a building permit that would result in earth disturbance, that are located in areas likely to contain naturally occurring asbestos (based on mapping developed by the California Department of Conservation [DOC]) have a California-registered geologist knowledgeable about asbestos-containing formations inspect the project area for the presence of asbestos using appropriate test methods. The County shall amend the Erosion and Sediment Control Ordinance to include a section that addresses the reduction of thresholds to an appropriate level for grading permits in areas likely to contain naturally occurring asbestos (based on mapping developed by

the DOC). The Department of Transportation and the County Air Quality Management District shall consider the requirement of posting a warning sign at the work site in areas likely to contain naturally occurring asbestos based on the mapping developed by the DOC.

Objective 6.3.2 COUNTY-WIDE SEISMIC HAZARDS: Continue to evaluate seismic related hazards such as liquefaction, landslides, and avalanche, particularly in the Tahoe Basin.

Policy 6.3.2.5 Applications for development of habitable structures shall be reviewed for potential hazards associated with steep or unstable slopes, areas susceptible to high erosion, and avalanche risk. Geotechnical studies shall be required when development may be subject to geological hazards. If hazards are identified, applicants shall be required to mitigate or avoid identified hazards as a condition of approval. If no mitigation is feasible, the project will not be approved.

Goal 7.1 SOIL CONSERVATION: Conserve and protect the County's soil resources.

Objective 7.1.2 EROSION/SEDIMENTATION: Minimize soil erosion and sedimentation.

Policy 7.1.2.1 Development or disturbance of slopes over 30% shall be restricted. Standards for implementation of this policy, including but not limited to exceptions for access, reasonable use of the parcel, and agricultural uses shall be incorporated into the Zoning Ordinance.

Policy 7.1.2.2 Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.

Policy 7.1.2.3 Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.

Policy 7.1.2.4 Cooperate with and encourage the activities of the three Resource Conservation Districts in identifying critical soil erosion problems and pursuing funding sources to resolve such problems.

Policy 7.1.2.5 The Department of Transportation, in conjunction with the Resource Conservation Districts and Soil Conservation District, shall develop a road-side maintenance program to manage roads in a manner that maintains drainage and protects surface waters while reducing road-side weed problems.

Policy 7.1.2.6 The County shall encourage the Soil Conservation Service to update the 1974 Soil Survey and to digitize all soils mapping units on the Geographic Information System (GIS).

Goal 7.3 WATER QUALITY AND QUANTITY: Conserve, enhance, and manage water resource and protect their quality from degradation.

Objective 7.3.4 DRAINAGE: Protection and utilization of natural drainage patterns.

Policy 7.3.4.1 Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.

Policy 7.3.4.2 Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.

Bass Lake Hills Specific Plan

The BLHSP was adopted November 7, 1995, as a coordinated planning program consistent with the El Dorado County General Plan for the development of 1,196 acres located in eastern El Dorado County.

Section 6.1 of the BLHSP outlines the grading plan standards for development projects within the BLHSP area. For example, as required by Section 6.1(7), in order to minimize erosion and

siltation, grading is only allowed on approved projects that are subject to immediate development. Issuance of a grading permit cannot occur prior to approval of a development application.

El Dorado County Code

Chapters 110.14 and 110.32 of the El Dorado County Code are applicable to the proposed project and are summarized below.

Grading, Erosion, and Sediment Control Ordinance

The County Grading, Erosion, and Sediment Control Ordinance (Grading Ordinance, Chapter 110.14 of the El Dorado County Code) establishes provisions for public safety and environmental protection associated with grading activities on private property. The ordinance sets forth rules and regulations to control excavation, grading, and earthwork construction, including fills and embankments. The Grading Ordinance also establishes the administrative procedures for issuance of permits, and provides for approval of plans and inspection of grading construction and all grading specific to single-parcel site improvements, except single-family residence construction, unless exceeding prescriptive standards as defined in the El Dorado County Design and Improvements Standards Manual.

Where the grading or earthwork involves multiple parcels, parcel maps, subdivisions, land divisions or roads, the County's Design and Improvement Standards Manual must be used for design purposes. The ordinance requires grading permits for any grading activity that has the potential to:

- Involve more than 250 cubic yards of grading material, or cuts and fills greater than five feet in vertical depth;
- Create unstable or erodible slopes;
- Denude more than 10,000 square feet of surface on a 10 percent or steeper grade;
- Encroach into a perennial or seasonal watercourse that either has a watershed larger than 50 acres or is designated by a solid or dashed blue line on a USGS 7.5-minute quadrangle map; or
- Occur within the Lake Tahoe Basin Special Restrictions and Exemptions area.

The grading permit applies to all projects with certain exemptions. The most significant exemption is for grading pursuant to a subdivision map and an approved subdivision improvement plan.

Septic Ordinance

Chapter 110.32 of the El Dorado County Code stablishes standards for the siting, design, installation, operation, and maintenance of onsite wastewater treatment systems (OWTS) in the County that are consistent with the water quality control policy for siting, design, operation, and maintenance of onsite wastewater treatment systems, adopted by the State Water Resources Control Board (SWRCB). The standards and specifications included therein are adopted to prevent the creation of health hazards and nuisance conditions and to protect surface water and groundwater quality.

Standards for the Site Evaluation, Design, and Construction of Onsite Wastewater Treatment Systems

The County's Standards for the Site Evaluation, Design and Construction of OWTS (OWTS Manual) was prepared in conjunction with El Dorado County's Local Agency Management Plan

in compliance with state requirements and is referenced in the standards for on-site wastewater treatment standards and permitting under Chapter 110.32.

The OWTS Manual includes the following standards for on-site wastewater treatment system design:

- Site evaluation that consists of soil test data (soil profile, percolation tests, groundwater monitoring results, and/or soil boring logs) to determine the soil's ability to treat and dispose of wastewater;
- Percolation test to determine rates of permeability to handle wastewater;
- Identification of depth to groundwater and associated groundwater monitoring;
- Site plan details identifying the location, setbacks (from wetlands, water features, domestic water supply pipelines, and other features), design of septic tank, disposal area, piping, and replacement disposal area; and
- Documentation that the OWTS would protect public health and the environment from the potential adverse health and environmental impacts.

4.5.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to geology, soils, and paleontological resources. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines and in coordination with El Dorado County, a significant impact related to geology and soils would occur if the proposed project would result in any of the following:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault;
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction; and
    - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;
- Have soils incapable of supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;

- 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 (see Chapter 4.15, Effects Not Found to be Significant); and/or
- 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 (see Chapter 4.15, Effects Not Found to be Significant).

As noted above, issues related to whether the proposed project would result in any of the following impacts are discussed in Chapter 4.15, Effects Not Found to Be Significant, of this EIR:

- 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 (see Chapter 4.15, Effects Not Found to be Significant); and/or
- 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 (see Chapter 4.15, Effects Not Found to be Significant).

Method of Analysis

The analysis for the proposed project's geology, soils, and paleontological impacts is based primarily on the Preliminary Geotechnical Engineering Study prepared by Youngdahl, as well as the Preliminary Onsite Wastewater Percolation and Mantle Testing Memorandums prepared by Youngdahl; the Preliminary Sanitary Sewer Feasibility Study prepared by CWE/RFE; and the USDA NRCS Web Soil Survey conducted by Youngdahl as part of the Phase I ESA. In addition, information from the El Dorado County General Plan and associated EIR was used for analysis.

Preliminary Geotechnical Engineering Study Analysis

A Preliminary Geotechnical Engineering Study was prepared by Youngdahl (February 9, 2023), and relied on a number of analytical tasks, including the following:

- Review of available geotechnical and geologic data for the project vicinity;
- Site reconnaissance;
- Evaluation of the data and information obtained from the field study and literature review for geotechnical conditions; and
- Development of preliminary geotechnical recommendations and considerations regarding earthwork construction, including, site preparation and grading, engineered fill criteria, seasonal moisture conditions, excavation characteristics, slope configuration and grading, and drainage.

Septic System Reports

Two alternatives are currently proposed for providing sewer service to the project site. The first alternative consists of the construction of an approximately 10,510-linear foot BLHSP sewer main connecting the project site to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Road, approximately 1.6 miles to the west (see Figure 3-18 of Chapter 3, Project Description, of this EIR). In order to receive public sewer service from the El Dorado Irrigation District (EID), the project site would need to be annexed into the EID service area, subject to El Dorado Local Agency Formation Commission (LAFCo) approval. The second alternative includes a septic sewer system as an interim solution for the Project Development Area of the project site.

As such, a Preliminary Onsite Wastewater Treatment Feasibility Study (December 30, 2021) and two Preliminary Onsite Wastewater Percolation and Mantle Testing Memorandums (March 13, 2022 and June 30, 2022) were prepared by Youngdahl, and a Preliminary Sanitary Sewer Feasibility Study (April 3, 2024) was prepared by CWE/RFE. The septic system reports are generally discussed below.

Preliminary Onsite Wastewater Treatment Feasibility Study

As part of the Preliminary Onsite Wastewater Treatment Feasibility Study, Youngdahl completed a preliminary feasibility study for onsite wastewater disposal for the proposed project, which included the following analytical tasks:

- A review of preliminary project conceptual plans;
- A review of existing soils data and topographic plans;
- Subsurface exploration of 13 test pits using a hand auger;
- Constraints mapping;
- Wastewater loading estimates;
- Estimation of application rates based on observed soils;
- Estimation of required area for onsite wastewater treatment;
- Identification of potential wastewater treatment areas; and
- Development of recommendations for further feasibility assessment.

On December 17, 2021, Youngdahl used an electrically powered eight-inch diameter soil auger to advance borings at 13 test pits (see Figure 4.5-1). Overall, the on-site subsurface soils were found to be either sandy clay loam or loamy sand, and groundwater was encountered in three borings located in the southern portion of the Program Study Area and the Project Development Area. During the subsurface exploration, Youngdahl observed two seeps on portions of the Program Study Area.

Preliminary Onsite Wastewater Percolation and Mantle Testing Memorandum (March 2022)

As part of the first memorandum (March 2022), Youngdahl completed preliminary percolation and mantle testing for the project site, which included the following analytical tasks:

- Subsurface exploration of five test pits (mantle tests) (see Figure 4.5-2) using a mini-excavator;
- Observations of soil profiles by Youngdahl and a representative of the El Dorado County Environmental Health Department;
- Percolation testing;
- Updated estimation of wastewater application rates based on percolation test results and soil profiles;
- Estimation of the minimum required area for onsite wastewater treatment; and
- Identification of potential areas for the use of onsite wastewater treatment.

On January 18, 2022, Youngdahl used an eight-inch diameter electric auger to advance borings from one to three feet at the five test pits (TP 1 through TP 5) (see Figure 4.5-2). A percolation testing apparatus with pea gravel packing was then installed into each boring. Water was then added to a height of 12 inches above the hole bottoms and maintained for a period of four hours. On the following day, Youngdahl added water to a depth of at least six inches above the hole

bottoms and the rate of drop was measured for four hours, with refilling performed as necessary. The memorandum concluded that further evaluation would be required to determine the feasibility of onsite treatment and disposal.

Preliminary Onsite Wastewater Percolation and Mantle Testing Memorandum (June 2022)

As part of the second memorandum (June 2022), Youngdahl completed preliminary percolation and mantle testing for the project site, which included the following analytical tasks:

- Subsurface exploration of five additional test pits (mantle tests) using a rubber-tired backhoe;
- Observations of soil profiles by Youngdahl and a representative of the El Dorado County Environmental Health Department;
- Percolation testing; and
- Updated estimation of wastewater application rates based on percolation test results and soil profiles.

The portions of the project site which were tested in March 2022 as part of the first memorandum were determined not to be sufficiently sized for the planned wastewater flows. Therefore, Youngdahl conducted additional testing to identify a sufficient area for onsite wastewater disposal to meet the project requirements. On June 9, 2022, Youngdahl advanced an additional five test pits (TP 6 through TP 10) to the east of the previous five test pits (TP 1 through TP 5) (see Figure 4.5-2). Four percolations tests were performed in the vicinity of each new test pit using the same methods as the percolation tests conducted in March 2022. The memorandum concluded that further evaluation would be required to determine the feasibility of onsite treatment and disposal.

Preliminary Sanitary Sewer Feasibility Study

A Preliminary Sanitary Sewer Feasibility Study was prepared by CWE/RFE to evaluate three septic design options for the Project Development Area. As part of the report, CWE/RFE reviewed the Onsite Wastewater Percolation and Mantle Testing Memorandums prepared for the proposed project, and the reports served as the basis for CWE/RFE's design for the septic system. The Preliminary Sanitary Sewer Feasibility Study determined that the Project Development Area would generate 43,100 gallons per day (gpd) of wastewater flow, which includes 9,400 gpd from the event center/museum, inclusive of two restaurants; 11,200 gpd from staff housing and hotel daily rental cottages; and 22,500 from the two hotels. According to CWE/RFE, the preferred septic design for the proposed project is a capping fill or mound system septic disposal system, which would be required to adhere to the requirements of the current El Dorado County OWTS Manual.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed 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, or seismic-related ground failure, including liquefaction, and landslides. Based on the analysis below, the impact is *less than significant*.

As the footprints of the Project Development Area and the Program Study Area are contiguous, and the proposed uses for both components of the proposed project are similar, the potential for either component to 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, or seismic-related ground failure, including liquefaction, and landslides would be similar. Thus, the following discussion applies to both components of the proposed project.

Project Development Area and Project Buildout

Based on historical seismic activity and fault and seismic hazards mapping, El Dorado County is considered to have relatively low potential for seismic activity, and is located beyond the highly active fault zones of the coastal areas of California. The distribution of known faults is concentrated in the western portion of the county, with several isolated faults in the central county area and the Lake Tahoe Basin. According to the County's General Plan EIR, active faults have not been identified in El Dorado County.

According to the US Geological Survey (USGS) Fault Map of California, the nearest fault zone to the project site is the Foothills Fault System, which is located along the foothills northeast of the project site. The nearest segment of the Foothills Fault System is located approximately 6.75 miles northeast of the project site.[17] Specifically, the County General Plan EIR identifies this segment of the Foothills Fault System as the West Bear Mountains Fault. However, according to the County's General Plan EIR, the most recent earthquake produced by the Foothills Fault System was a magnitude 5.7 earthquake that occurred in the City Oroville on August 1, 1975, approximately 65 miles north of the project site.

As discussed above, the project site is not underlain by any active faults, nor is the project area located within an Alquist-Priolo Fault Special Studies Zone. 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 2022 CBSC. The 2022 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.

It should be noted that 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

[17] U.S. Geological Survey. *U.S. Quaternary Faults.* Available at: https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf. Accessed May 2024.

California Supreme Court 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.). As such, environmental impact analyses under CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents unless the project might cause or risk exacerbating environmental hazards or conditions that already exist (CCR Section 15126.2[a]). Based on the above, the construction and operation of the proposed project would not create new seismic events or exacerbate existing seismic hazards, because the development of proposed project would not alter existing geologic, seismic, and fault conditions in the region.

Therefore, the proposed project would not expose people or structures to the risk of loss, injury, or death involving rupture of an earthquake fault, strong ground shaking, ground failure, liquefaction, or landslides, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.5-2 Result in substantial soil erosion or the loss of topsoil. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As the footprints of the Project Development Area and the Program Study Area are contiguous, and the proposed uses for both components of the proposed project are similar, the potential for either component to result in substantial soil erosion of the loss of topsoil would be similar. Thus, the following discussion applies to both components of the proposed project.

Project Development Area and Project Buildout

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. Ground-disturbing activities at the project site and off-site improvement areas associated with construction of the proposed project could also result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential within the construction and staging areas. 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 site would be largely covered with impervious surfaces.

Improvement Plans provided to the County prior to authorization of construction would conform to applicable provisions of the County Grading, Erosion, and Sediment Ordinance (Chapter 110.14 of the El Dorado County Code). In addition, because the proposed project would result in land disturbance of over one acre, the project applicant would be required by the State to comply with the most current National Pollutant Discharge Elimination System (NPDES) Construction General Permit requirements. Pursuant to NPDES requirements, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared for the proposed project, which would include the site plan, drainage patterns and stormwater collection and discharge points, Best Management Practices (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 Central Valley Regional Water Quality Control Board (CVRWQCB). 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. Furthermore, during construction of the off-site sewer alternative, temporary construction BMPs for the project would be implemented to protect the water quality of Carson Creek. For example, the temporary BMPs may include, but would not be 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.

Furthermore, the project would be required to comply with the applicable erosion and sediment control measures outlined in the El Dorado County Design and Improvement Standards Manual and the County's Stormwater Management Program (SWMP). Therefore, with the preparation of an SWPPP in accordance with the NPDES Construction General Permit and compliance with the foregoing requirements, development of the proposed project would not result in substantial soil erosion or the loss of topsoil.

Although topsoil exposure would be temporary during early construction activities and would cease once development of buildings and structures and asphalt for roads, parking, etc. occurs, after grading and leveling and prior to overlaying the ground surface with structures, the potential exists for erosion or loss of topsoil to occur. Therefore, short-term construction related impacts associated with substantial soil erosion or the loss of topsoil could be ***significant***.

Mitigation Measure(s)

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

Project Development Area and Project Buildout

4.5-2 *Prior to issuance of any grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the CVRWQCB. The contractor 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 both the County Planning and Building Department and the County Department of Transportation for review and approval and shall remain on the project site during all phases of construction.

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. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

As the footprints of the Project Development Area and Program Study Area are contiguous, the potential for either component of the proposed project to 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 would be similar. Thus, the following discussion applies to both components of the proposed project.

Project Development Area and Project Buildout

Issues associated with unstable geologic units and/or soils, including expansive soils, landslide, lateral spreading, liquefaction, subsidence/settlement, and collapse are discussed below.

Expansive Soils

According to the El Dorado County General Plan EIR, soils in western El Dorado County, where the project site is located, generally have a low to moderate shrink-swell potential. Furthermore, based on previous subsurface explorations conducted at the project site, the Preliminary Geotechnical Engineering Study determined that the potential exists for plastic materials, such as clay soils, to be encountered on the site. Expansive soils have the potential to compromise the structural integrity of project features, which could result in a significant impact. The Preliminary Geotechnical Engineering Study includes recommendations to reduce potential damage to the proposed project, such as properly mixing any encountered expansive soils with less expansive on-site materials (i.e., silt, sands, and gravel), as well as proper moisture conditioning and compaction control during site grading and designing foundations. Without implementation of mitigation measures, on-site expansive soils could cause differential movement (either shrink or swell) and significant damage to overlying

structures. Thus, the proposed project would have the potential to be exposed to substantial risks related to expansive soils.

Landslide

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. Based on information available on the CGS website, the project site and off-site improvement areas are not located within a State of California Seismic Hazard Zone for seismically-induced landsliding.[18]

Lateral Spreading

Lateral spreading is associated with terrain near free faces such as excavations, channels, or open bodies of water. As discussed above, the project site contains slopes in various directions. During the site reconnaissance, Youngdahl observed that the existing slopes on the project site had adequate vegetation on the slope face, appropriate drainage away from the slope face, and tension cracks or slump blocks in the slope face or at the head of the slope were not observed. As discussed above, seeps have previously been observed at the project, but were not observed during the most recent site exploration in 2023 as part of the Preliminary Geotechnical Engineering Study. Other indications of slope instability, such as seeps or springs were not observed. Additionally, due to the absence of a permanently elevated groundwater table, the relatively low seismicity of the area, and the relatively shallow depth to bedrock, the potential for seismically induced slope instability for the existing slopes is considered low.

Liquefaction

Liquefaction occurs when saturated fine-grained sand and/or silts lose their physical strength temporarily during earthquake-induced shaking and behave as a liquid. The CGS has designated certain areas within California as potential liquefaction hazard zones. The areas considered at risk of liquefaction-related ground failure are based upon mapped surficial deposits and depth to the areal groundwater table. Overall, the project site and off-site improvement areas are not currently mapped for potential liquefaction hazard by the CGS.[19] Additionally, as discussed above, the Preliminary Geotechnical Engineering Study concluded that due to the absence of permanently elevated groundwater table, the relatively low seismicity of the area, and the relatively shallow depth to cemented soils, the potential for seismically induced damage due to liquefaction at the project site is considered low.

Subsidence/Settlement

Subsidence is the settlement of soils of very low density, generally from either oxidation of organic material, desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years, and is a common consequence of liquefaction. Due the site's low potential for liquefaction, the

[18] California Department of Conservation. *CGS Information Warehouse: Landslides*. Available at: http://maps.conservation.ca.gov/cgs/informationwarehouse/. Accessed April 2024.

[19] California Department of Conservation. *California Earthquake Hazards Zone Application.* Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed April 2024.

potential for seismically-induced settlement to occur at the project site is also considered to be low.

Collapse

As discussed above, the design of the project structures 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 proposed project would not be subject to substantial risks associated with building collapse.

Conclusion

Based on the above, the proposed project would not likely be subject to issues associated with subsidence, liquefaction, or collapse. However, expansive soils were identified within the project site. The Preliminary Geotechnical Engineering Study includes recommendations to ensure adequate support of the proposed improvements, including recommendations related to lateral spreading and expansive soils. Such recommendations include, but are not limited to, scarification, moisture conditioning, compaction, and blending expansive soils with non-expansive soils. However, because a final geotechnical engineering report has not yet been prepared, 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.

Project Development Area and Project Buildout

4.5-3 *Prior to final design approval and issuance of building permits for the proposed project, the project applicant shall submit a design-level geotechnical engineering report produced by a California Registered Civil Engineer or Geotechnical Engineer to the El Dorado County Planning and Building Department, for review and approval. The report shall include the geotechnical recommendations specified in the Preliminary Geotechnical Engineering Study prepared for the proposed project, 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;*
- *Slope configuration and grading practices; and*
- *Expansive/unstable soils, including fill.*

Prior to issuance of any building permits, the foundation and improvement plans shall incorporate design-level recommendations.

All foundation and improvement plans shall be reviewed and approved by the El Dorado County Planning and Building Department prior to issuance of any building permits.

4.5-4 Have soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Based on the analysis below, the impact is *less than significant.*

As previously discussed, two alternatives are currently proposed for providing sewer service to the project site. The first alternative consists of the construction of an approximately 10,510-linear foot BLHSP sewer main connecting the project site to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Road. In order to receive public sewer service from EID, the project site would need to be annexed into the EID service area, subject to El Dorado LAFCo approval. The second alternative includes a septic sewer system as an interim solution for the Project Development Area of the project site. If the interim septic sewer system is constructed within the Project Development Area, development would not be allowed to occur in the Program Study Area until the new gravity trunk sewer main is constructed.

Because development of the first alternative would not include use of septic tanks or alternative wastewater disposal systems, the issue of the presence of soils that are incapable of supporting such systems is not relevant. However, the second alternative would require the use of septic systems. Therefore, the following discussion includes a project-level analysis of potential impacts associated with buildout of a septic system to serve the Project Development Area. A detailed discussion of the proposed on-site wastewater treatment systems is included in Chapter 4.13, Utilities and Service Systems, of this EIR.

Project Development Area

As discussed above, the second alternative for providing sewer service to the project site would include development of an interim septic system to serve the Project Development Area.

The Preliminary Onsite Wastewater Treatment Feasibility Study prepared for the proposed project concluded that the shallow soils on the property could potentially be suitable for onsite wastewater treatment and disposal. While the report preliminarily determined that the western portion of the project site and the area north of the planned commercial development would be the most suitable area for onsite wastewater treatment/disposal, Youngdahl recommended further evaluation.

As part of the Onsite Wastewater Percolation and Mantle Testing Memorandum (March 2022), Youngdahl conducted percolation testing at five test pits at the project site (see Figure 4.5-2). The shallow soils discovered during the subsurface explorations were predominately silty to sandy clay and overlay highly weathered bedrock, which represents a limiting layer. According to Youngdahl, because the deep soils within the bedrock were found to be moist, infiltration can occur within this limiting layer. Based on the results of Youngdahl's percolation tests, the average percolation rates from depths of 2.5 feet or shallower are 109 minutes per inch. The percolation

tests conducted at depths of three feet generally did not percolate significantly within the four-hour test timeframe. While the project site is constrained by relatively thin soils overlying fractured bedrock, Youngdahl determined that onsite treatment and disposal is likely feasible using an advanced treatment system. However, the memorandum concluded that further evaluation would be required to determine the feasibility of onsite treatment and disposal.

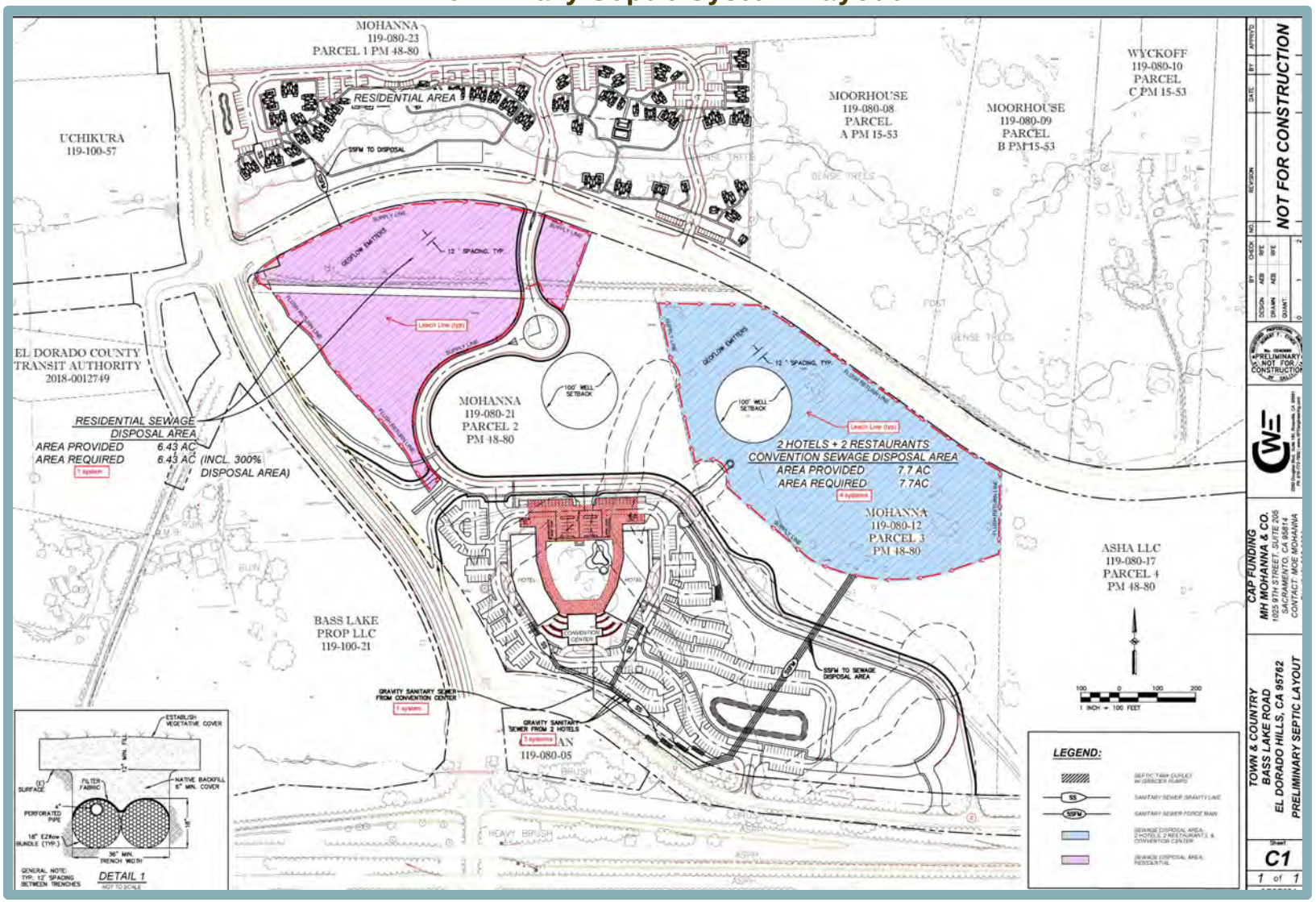
As part of the Onsite Wastewater Percolation and Mantle Testing Memorandum (June 2022), Youngdahl conducted percolation testing at five additional test pits at the project site. Based on the results of the new percolation tests, the average percolation test rates were estimated to be 19.1 minutes per inch. Overall, the one- to two-foot shallow soils were found to have good percolation rates. Soils at depths of more than 2.5 feet did not percolate well and Youngdahl determined that such soils should not be used for sewage disposal. The memorandum concluded that further evaluation would be required to determine the feasibility of onsite treatment and disposal.

Based on the results of the aforementioned wastewater-related reports, a Preliminary Sanitary Sewer Feasibility Study was prepared by CWE/RFE to evaluate three septic design options for the Project Development Area. According to the Preliminary Sanitary Sewer Feasibility Study, the El Dorado County OWTS Manual requires a minimum effective soil depth of five feet below the design depth. Because the percolation testing conducted by Youngdahl determined that on-site soils at depths of more than 2.5 feet did not percolate well and should not be used for disposal, a Special Design OWTS is required for the proposed project. The Special Design OWTS would be required to adhere to the current El Dorado County OWTS Manual requirements.

According to CWE/RFE, the preferred interim septic design for the Project Development Area is a capping fill or mound system. The pressure system components would be comprised of a septic tank, pump tank, and dispersal field. The dispersal field trenches would be between one to two feet deep, and three feet wide, and would be constructed with a minimum of one foot of capping fill. The preferred alternative system would adhere to the requirements of the current El Dorado County OWTS Manual.

Two disposal areas for the proposed uses would be required as part of the septic disposal system. One disposal area would serve the proposed 112 residential cottages in the northernmost 7.9-acre portion of the project site and the second disposal area would serve the two 160,000-sf hotels and the 21,000-sf event center/museum with two restaurants. The residential sewage disposal area would require approximately 5,833 lineal feet of leach lines, which would equate to approximately 1.61 acres of disposal area. The sewage disposal area for the hotels, event center/museum, and associated restaurants and retail would require approximately 6,996 lineal feet of leach lines, which would equate to approximately 1.93 acres of disposal area. However, the County requires a 300 percent replacement area, or three times the primary disposal area, in the event that the primary leach field fails. As such, the residential disposal area with a 300 percent replacement area would occur on a 6.43-acre portion of the Program Study Area (see Figure 4.5-3). The disposal area for the two hotels, event center/museum, and associated restaurants with a 300 percent replacement area would occur on a 7.7-acre portion of Program Study Area (see Figure 4.5-3).

Figure 4.5-3
Preliminary Septic System Layout



A total of six septic systems would be constructed to accommodate the development of the proposed project. One system would be required for the residences; one system for the staff housing; one for the event center/museum and restaurants; and three systems would be required for the two hotels. Based on the Preliminary Sanitary Sewer Feasibility Study, the proposed interim septic system would be adequate to handle the daily wastewater generated by uses in the Project Development Area of the project site, which is estimated to be 43,100 gpd.

Conclusion

Based on the above, the project site does not include soils incapable of supporting the use of septic tanks or alternative wastewater disposal systems, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.5-5 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Based on the analysis below, the impact is *less than significant.*

As the footprints of the Project Development Area and Program Study Area are contiguous, the potential for either component of the proposed project to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature would be similar. Thus, the following discussion applies to both components of the proposed project.

Project Development Area and Project Buildout

As previously discussed, the project site is located within a region underlain by metavolcanic rock in the foothills of the Sierra Nevada. Fossils are not anticipated to survive the heat and pressure involved in the formation of volcanic rocks. Consequently, the potential for unknown, intact paleontological resources to occur on the site is negligible. Furthermore, the project site does not contain any unique geologic features and the County's General Plan EIR determined that it is unlikely that paleontological resources would be found within the County. As such, the proposed project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, 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.

Additional detail regarding the cumulative project setting can be found in Chapter 5, Statutorily Required Sections, of this EIR.

4.5-6 Cumulative increase in the potential for geological related impacts and hazards. Based on the analysis below, the cumulative impact is *less than significant*.

As the footprints of the Project Development Area and Program Study Area are contiguous, and the proposed uses for both components of the proposed project are similar, the potential for either component of the proposed project to result in the cumulative increase in the potential for geological related impacts and hazards would be similar. Thus, the following discussion applies to both components of the proposed project.

Project Development Area and Project Buildout

Impacts to geology, soils, seismicity, and paleontological resources related to implementation of the proposed 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 proposed project. In addition, Mitigation Measure 4.5-3, which requires the preparation of a final 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 project site are not worsened by impacts from development on expansive soils or undocumented fill at another project 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, and seismicity, to which implementation of the proposed 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 proposed project area. The chapter includes a discussion of potential impacts posed by such hazards to the environment. Specifically, the chapter identifies whether the proposed project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. However, it should be noted that 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 by Youngdahl Consulting Group, Inc. (see Appendix L of this EIR).[2] Further information was sourced from the El Dorado County General Plan[3], the El Dorado County General Plan EIR,[4] the Bass Lake Hills Specific Plan (BLHSP)[5] and the Bass Lake Road Study Area Program EIR (Bass Lake EIR).[6]

4.6.2 EXISTING ENVIRONMENTAL SETTING

The following section includes a definition of hazardous materials and descriptions of the existing conditions associated with the project site related to hazards and hazardous materials.

Hazardous Materials

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if the material appears on a list of hazardous materials prepared by a federal, State, or local regulatory agency or if the material has characteristics defined as hazardous by such an agency. The California Environmental Protection Agency (CalEPA), California Department of Toxic Substance Control (DTSC) defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

> […] its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious

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1 Pursuant to California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369 (CBIA), the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment – and not the environment's impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (Id. at pp. 377-378.).

2 Youngdahl Consulting Group, Inc. *Phase I Environmental Site Assessment, The Town And Country Village El Dorado County APNs 119-080-012, -021, & -023 El Dorado Hills, California*. August 2022.

3 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.

4 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.

5 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.

6 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

> 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 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 project site. An REC indicates the presence or likely presence of any hazardous substances in, on, or at a property due to any release into the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment.[7]

Additionally, the following section includes a discussion of historical RECs (HRECs) associated with the project 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 project site. A CREC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

Project Area Conditions

The project site consists of three parcels totaling approximately 60.5 acres in El Dorado County, and is split into two areas: the Project Development Area, which includes the northernmost and southernmost 30.3 acres of the project site, and the Program Study Area which includes the central and easternmost 30.2 acres of the project site. The elevation of the project site ranges between approximately 1,040 and 1,220 feet above mean sea level (amsl). The project site slopes in various directions and is vegetated by seasonal grasses and scattered oak trees. According to the Phase I ESA, groundwater is expected to flow generally to the southwest. Two wells exist near the center of the project site, within the Program Study Area. The project site has historically been vacant and undeveloped, with the exception of Country Club Drive crossing through the northern portion of the site. Specifically, aerial photographs between 1940 and 2016 show the project site as mostly vacant and undeveloped until 1973, when an unpaved road that runs generally east/west and crosses through the northern portion of the property (i.e., Country Club Drive) was identified.

It should be noted that the project site also includes several off-site improvement areas associated with the proposed water, sewer, and natural gas lines, bike path, and pedestrian bridge improvements. The proposed off-site improvements would primarily occur along Bass Lake Road, with the proposed off-site sewer line also extending along U.S. Highway 50 (US 50).

According to the Phase I ESA, neither the project site nor any adjoining property have been used for industrial purposes, or other uses known to potentially contain hazardous materials, such as a gas station, motor repair facility, commercial printing facility, dry cleaners, photo developing

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

laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility.

In addition, based on the Phase I ESA prepared for the project site, which included a site reconnaissance performed on August 25, 2022 by Youngdahl Consulting Group, Inc., the project site does not contain any discernable RECs, HRECs, or CRECs related to structures that could contain asbestos-containing materials or lead-based paint, polychlorinated biphenyl (PCB) containing equipment, substantial soil staining, stressed vegetation, above-ground storage tanks (ASTs) or underground storage tanks (USTs), wastewater conveyance or storage, or domestic wells. A Vapor Encroachment Screening (VES) was also conducted for the project site as part of the Phase I ESA in order to identify potential risks associated with migration of volatile organic compounds (VOCs) through soil vapor. The VES did not identify potential risks within the project site.

It should be noted that, as discussed in Chapter 4.2, Air Quality, Greenhouse Gas Emissions, and Energy, of this EIR, the southeast corner of the project site has been identified as being within an El Dorado County review area for naturally occurring asbestos (NOA).

Nearby Recognized Environmental Conditions

A Database Records Search was conducted by Environmental Data Resources, Inc. (EDR) as part of the Phase I ESA. The search identified sites listed on regulatory agency databases within approximate minimum search distances from the project site with potential existing environmental problems. The following site was identified in the project vicinity:

- Silver Dove Elementary – Silver Dove Way/Bass Lake Road, located approximately 0.3 miles to the north of the project site. The site is listed in the EnviroStor and School Property Evaluation Program (SCH) databases due to potential naturally occurring asbestos (NOA) within the soil.[8]

However, the Phase I ESA did not identify any potential risks to the project site associated with the above listed property.

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

[8] California Department of Toxic Substances Control. *Envirostor – Silver Dove Elementary (09000003)*. Available at: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=09000003. Accessed May 2024.

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 polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based 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 State Water Resources Control Board (SWRCB) establish rules governing the use of hazardous materials and the management of hazardous waste. Within CalEPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL). The following discussion contains the applicable State laws.

Regional Water Quality Control Board

The CalEPA and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials in California. Within CalEPA, DTSC has primary regulatory responsibility for hazardous waste management. Enforcement of regulations can be delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law. Along with the DTSC, the 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 Governor's Office of Emergency Services (Cal 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, pursuant to 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. 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), Central Valley RWQCB, and the Placer County Fire Department.

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 Onsite 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 El Dorado County General Plan and various other local guidelines and regulations related to hazards and hazardous materials are discussed below.

El Dorado County General Plan

The following goals, objectives, and policies of the 2004 El Dorado County General Plan related to hazards and hazardous materials are applicable to the proposed project.

Goal 6.1 COORDINATION: A coordinated approach to hazard and disaster response planning.

Objective 6.1.1 EL DORADO COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN: The El Dorado County Multi-Jurisdictional Local Hazard Mitigation Plan shall serve as the implementation program for this Goal.

Policy 6.1.1.1 The El Dorado County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) shall serve as the implementation program for the coordination of hazard planning and disaster response efforts within the County and is incorporated by

reference to this Element. The County will ensure that the LHMP is updated on a regular basis to keep pace with the growing population.

Goal 6.6 MANAGEMENT OF HAZARDOUS MATERIALS: Recognize and reduce the threats to public health and the environment posed by the use, storage, manufacture, transport, release, and disposal of hazardous materials.

Objective 6.6.1 REGULATION OF HAZARDOUS MATERIALS: Regulate the use, storage, manufacture, transport and disposal of hazardous materials in accordance with State and Federal regulations.

Policy 6.6.1.1 The Hazardous Waste Management Plan shall serve as the implementation program for management of hazardous waste in order to protect the health, safety, property of residents and visitors, and to minimize environmental degradation while maintaining economic viability.

Policy 6.6.1.2 Prior to the approval of any subdivision of land or issuing of a permit involving ground disturbance, a site investigation, performed by a Registered Environmental Assessor or other person experienced in identifying potential hazardous wastes, shall be submitted to the County for any subdivision or parcel that is located on a known or suspected contaminated site included in a list on file with the Environmental Management Department as provided by the State of California and federal agencies. If contamination is found to exist by the site investigations, it shall be corrected and remediated in compliance with applicable laws, regulations, and standards prior to the issuance of a new land use entitlement or building permit.

El Dorado County Code

The following chapters of the El Dorado County Code related to hazards and hazardous materials are applicable to the proposed project.

Hazardous Materials Ordinance

El Dorado County Code Chapter 8.38, Hazardous Materials, regulates the handling, storage, use, transport, processing, or disposal of hazardous materials. The ordinance establishes requirements for businesses that are consistent with California Health and Safety Code and the CCR. Such requirements include the reporting of hazardous materials, disclosure of accidental release of hazardous materials, and preventative and mitigative measures for impacts resulting from hazardous materials. The ordinance provides that a valid permit is required to conduct activities regulated by the chapter.

El Dorado County Local Hazard Mitigation Plan

The 2018 Local Hazard Mitigation Plan (LHMP) was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 so that El Dorado County would be eligible for the Federal Emergency Management Agency's (FEMA) Pre-Disaster Mitigation and Hazard Mitigation Grant Programs. The LHMP is a multi-jurisdictional plan that geographically covers the entire area within El Dorado County's jurisdictional boundaries. The purpose of the LHMP is to guide hazard mitigation planning and to better protect the people and property of the County from the effects of hazard events. The LHMP demonstrates the County's commitment to reducing risks from hazards and serves as a tool to help decisionmakers direct mitigation activities and resources. The El Dorado County Board of Supervisors adopted the LHMP on April 23, 2019, and FEMA adopted the LHMP in March 2019. The goals of the 2018 LHMP are as follows:

- Goal 1: Minimize risk and vulnerability of El Dorado County to the impacts of natural hazards and protect lives, public health and safety; and reduce damages and losses to property, economy, and the environment;
- Goal 2: Provide protection for critical facilities, infrastructure, utilities and services from hazard impacts;
- Goal 3: Improve public awareness, education, communication, and preparedness for all hazards;
- Goal 4: Increase communities' capabilities to mitigate losses and to be prepared for, respond to, and recover from a disaster event; and
- Goal 5: Maintain FEMA Eligibility/Position the communities for grant funding.

El Dorado County Environmental Management Department

The El Dorado County Environmental Management Department (EDCEMD) is responsible for ensuring compliance with applicable state laws, regulations, and County ordinances concerning public health and safety issues. The EDCEMD includes departmental units, such as the Environmental Health unit, which addresses food facilities, domestic wells, small water systems, septic systems, public pools and spas, and public health issues, The Hazardous Materials unit addresses the implementation of hazardous materials and household hazardous waste programs to ensure proper management and disposal. The Solid Waste unit addresses the implementation of the County's solid waste and recycling programs to ensure safe handling and proper disposal of residential and commercial solid waste.

4.6.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed 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 proposed project would:

- Create a significant hazard to the public or the environment through the routine handling, 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 likely release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment (see Chapter 4.15, 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 4.15, Effects Not Found to be Significant);
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (see Chapter 4.14, Wildfire); and/or
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires (see Chapter 4.14, Wildfire).

As noted above, impacts related to the project site being located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and safety hazards associated with airports and private airstrips are discussed in Chapter 4.15, Effects Not Found to be Significant, of this EIR.

Impacts related to wildland fires are addressed in detail in Chapter 4.14, Wildfire, of this EIR. Thus, further discussions related to impairing implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan, or the exposure of people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fire, or are not discussed in further detail in this chapter.

Method of Analysis

The following sections describe the methods of analysis used to determine the presence of RECs for the Phase I ESA prepared for the project site by Youngdahl Consulting Group, Inc. The purpose of the Phase I ESA was to evaluate whether evidence of RECs exists that may have impacted or could potentially impact the parcels. The Phase I ESA was performed in general accordance with the American Society for Testing and Materials (ASTM) E1527-13 standard. The following tasks were performed as part of the Phase I ESA:

- Historical records such as aerial photographs, Sanborn Fire Insurance maps, historical topographic maps, city directories, and other readily-available historical sources were evaluated, as available, to research the history of the site and vicinity;
- Federal, State, and local environmental databases were reviewed to identify sites that use, store, or have released hazardous materials. The database search was performed by EDR, an environmental database research firm. The EDR database reports (presented as Appendix C to the Phase I ESA, which is included as Appendix L of this EIR) provide federal and State information intended to meet ASTM guidelines for Phase I ESAs. Regulatory files were reviewed for the identified sites, subject to the limitations of the ASTM guidance document;
- A surface reconnaissance of the project site and all adjacent properties was performed by Youngdahl Consulting Group, Inc. on August 25, 2022;

- Preliminary screening for vapor encroachment conditions (VECs) beneath the parcel using the ASTM Standard Guide for VES on Property Involved in Real Estate Transactions (ASTM E2600-10); and
- Persons with knowledge of the site were interviewed.

For further details regarding the methodology and results of the Phase I ESA prepared by Youngdahl Consulting Group, Inc. for the project site, please see Appendix L of this EIR.

Project-Specific Impacts and Mitigation Measures

The project site conditions, as well as conditions at off-site improvement areas, have been compared to the standards of significance presented above in order to determine the project's impact significance. If significant impacts are identified for the construction and operational phases of the proposed 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*.

Given that development of both the Project Development Area and the Program Study Area would result in similar land uses, the following discussion applies to the potential for both components of the overall proposed project to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Project Development Area and Project Buildout

A significant hazard to the public or the environment could result from the routine transport, use, or disposal of hazardous materials. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The proposed project would not be industrial in nature. Operations of the proposed project would not include any activities that would involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. During operations, hazardous material use would be limited to landscaping products such as fertilizer, pesticides, as well as typical commercial and maintenance products (cleaning agents, degreasers, paints, batteries, and motor oil). Additionally, the proposed hotels would include a pool, which would require the use of maintenance products and chemicals. 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 proposed 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 proposed project, including the proposed off-site improvements, 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),[9] 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 proposed project, the EDCEMD) 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 proposed project, the contractors are required to notify the EDCEMD 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 proposed project would not create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous materials, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

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*.

The Phase I ESA prepared for the proposed project included an analysis of potential RECs within the entirety of the project site, including both the Project Development Area and the Program Study Area. Therefore, the following discussion applies to the potential for both components of the overall proposed project to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

Project Development Area and Project Buildout

According to the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (*CBIA*), the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future users. In those specific instances, it is the impact of the project on the environment – and not the impact of the environment on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (*Id.* at pp. 377-378.).

[9] 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.

Therefore, where existing hazardous conditions already occur on the project site or vicinity, the discussion below focuses on the proposed project's potential to exacerbate risks associated with such conditions.

As presented above in the Existing Environmental Setting section of this chapter, the Phase I ESA did not identify potential RECs, HRECs, or CRECs on-site, or evidence related to such, including structures that could contain asbestos-containing materials or lead-based paint, PCB containing equipment, substantial soil staining, stressed vegetation, ASTs or USTs, or wastewater conveyance or storage. As previously discussed, NOA could occur within the southeast corner of the project site, based on an El Dorado County review area. Therefore, the potential exists for construction workers or nearby sensitive receptors to be exposed to asbestos if rocks within the project site contain asbestos, as grading and construction activities could release asbestos fibers into the environment if not properly controlled. The proposed project would be required to implement Mitigation Measure 4.2-3(a), which would reduce the potential impact related to NOA to a less-than-significant level. In addition, sites of potential risk were not identified during completion of the VES conducted as part of the Phase I ESA. However, as noted above, two wells exist within the Program Study Area. One well has been abandoned, and one is still considered active. According to the project applicant, the active well is not currently used. Should development proceed within the Program Study Area at a later date, the project applicant would decide whether they would like to try to use the wells (most likely for landscape irrigation), or abandon the active well. If the active well were to be abandoned by the project applicant, the abandonment would be required to be conducted in compliance with the California Department of Water Resources (DWR) Water Well Standards, Bulletins 74-81 and 74-90, as well as the El Dorado County Well Construction and Water Supply Standards Ordinance.

Furthermore, as discussed above, the results of the Phase I ESA's review of facilities located near the project site that are listed in federal, State, and/or local databases of hazardous materials sites included the Silver Dove Elementary listing, identified on the Envirostor database and the SCH database. However, a listing on the aforementioned databases is not considered to be indicative of a release of a hazardous material or petroleum product at a property. In addition, based on the documentation reviewed concerning the agency listings for neighboring facilities, the Phase I ESA concluded that the facility listing would not have an impact on the project site. Additionally, the proposed project would not exacerbate existing conditions associated with the nearby listed facility. Thus, a less-than-significant impact would occur.

However, the Phase I ESA prepared for the proposed project did not include an assessment of environmental conditions for the proposed off-site improvement areas. Thus, construction of such improvements could occur within areas that contain asbestos-containing materials or lead-based paint, PCB containing equipment, substantial soil staining, stressed vegetation, ASTs or USTs, wastewater conveyance or storage, or domestic wells, and additional analysis would be required to determine the potential for off-site environmental conditions to cause a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

Conclusion

Based on the above, implementation of the off-site improvements could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions if hazardous materials are located within the proposed off-site improvement areas. Therefore, the proposed project would result in a ***significant*** impact.

Mitigation Measure(s)

Mitigation Measures 4.6-2(a) and 4.6-2(b) are tied to off-site improvements, some of which are required for the Project Development Area (i.e., water), and others of which may be delayed until further Program Study Area developments (i.e., sewer). Therefore, Mitigation Measures 4.6-2(a) and 4.6-2(b) may be applicable to both the Project Development Area and the Program Study Area. Implementation of the following mitigation measures would reduce the above potential impact to a *less-than-significant* level.

Project Development Area and Project Buildout

4.6-2(a) *Prior to issuance of a grading permit by El Dorado County for any off-site improvements associated with the proposed project, the project applicant shall ensure that a Phase I Environmental Site Assessment (ESA) is prepared and submitted to the County for review and approval.*

The Phase I ESA shall be prepared in accordance with the American Society for Testing and Materials (ASTM) E1527-21 standard (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process) by a State-licensed engineering geologist for the purpose of observing and assessing the conditions encountered at the proposed off-site improvement areas and providing conclusions and recommendations relative to any hazardous conditions or materials identified within the off-site improvement areas. The Phase I ESA shall include, but not necessarily be limited to, review of the physical setting of the off-site improvement areas; historical sources review (i.e., aerial photographic review, historical and current U.S. Geological Survey [USGS] topographic maps, historical local abstracts, certified Sanborn maps); review of applicable federal, State, and local environmental databases; a field reconnaissance of the off-site improvement areas; and findings and conclusions. All recommendations set forth in the Phase I ESA shall be appropriately incorporated into the project and shall be subject to review and approval by the El Dorado County Planning and Building Department. If the Phase I ESA does not recommend further investigation of the off-site improvement areas, additional mitigation shall not be required.

4.6-2(b) *If indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are encountered within the off-site improvement areas as part of the Phase I ESA, the impacted area(s) shall be isolated from surrounding, non-impacted areas. A State-licensed engineering geologist shall conduct a Phase II ESA of the impacted area(s) and obtain samples of the potentially impacted soil for analysis of the contaminants of concern in accordance with applicable U.S.*

Environmental Protection Agency (USEPA) Methods and comparison with applicable regulatory screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). The Phase II ESA shall be submitted for review and approval to El Corado County. Where the soil contaminant concentrations exceed the applicable regulatory screening levels, the impacted soil shall be excavated and disposed of off-site at a licensed landfill facility to the satisfaction of the El Dorado County Environmental Management Department.

Program Study Area

4.6-2(c) *In conjunction with submittal of an application for project-level entitlements for the Program Study Area, the project applicant shall identify whether the one active well within the Program Study Area would remain in place or be abandoned. If the well will be abandoned, such abandonment shall be done in accordance with the El Dorado County Well Construction and Water Supply Standards Ordinance, to the satisfaction of the El Dorado County Environmental Management Department.*

4.6-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Based on the analysis below, the impact would be *less than significant*.

As the footprints of the Project Development Area and the Program Study Area are contiguous, and the proposed uses for both components of the overall proposed project are similar, the potential for either phase to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be the same. Thus, the following discussion applies to both phases of the proposed project.

Project Development Area and Project Buildout

The project site is located approximately 0.25-mile to the west of Holy Trinity School. Therefore, the proposed project would be located within 0.25-mile of an existing school. However, as discussed under Impact 4.6-1, projects that emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste are typically industrial in nature. The proposed project would not be industrial in nature and would, instead, consist primarily of residential, commercial, and recreational (i.e., hotel, event center, and museum) uses. Thus, operations of the proposed project would not result in a significant impact to Holy Trinity School related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste.

In addition, during construction activities, 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. Furthermore, as discussed under Impact 4.6-2, evidence of RECs, controlled RECs or historical RECs was not identified in connection with the project site, and Mitigation Measure

4.6-2 would ensure that hazardous conditions associated with the off-site improvement areas do not occur.

Based on the above information, while the project site is located within 0.25-mile of Holy Trinity School, the proposed project would not result in substantial adverse effects related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste. Therefore, the project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

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

For more details regarding the cumulative setting, refer to Chapter 5, 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, site-specific impacts associated with hazardous materials related to implementation of the proposed project were found to be less than significant, with incorporation of mitigation. Hazardous materials and other public health and safety issues are generally site-specific and/or project-specific, and would not be significantly affected by other development within the project area. Cumulative development projects would be subject to the same federal, State, and local hazardous materials management requirements as would the proposed 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 proposed 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 project site, current stormwater flows, and stormwater infrastructure. The chapter also evaluates potential impacts of the proposed 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 the chapter was primarily drawn from a Preliminary Drainage Report prepared by CTA Engineering & Surveying to evaluate development of the Project Development Area as part of the proposed project (see Appendix M of this EIR).[1] In addition, information was drawn from the El Dorado County General Plan,[2] associated General Plan EIR,[3] and the El Dorado Irrigation District (EID) 2020 Urban Water Management Plan (UWMP).[4] Further information was sourced from the Bass Lake Hills Specific Plan (BLHSP) and the Bass Lake Road Study Area Program EIR (Bass Lake EIR).[5,6] It should be noted that water supply availability is addressed in Chapter 4.13, Utilities and Service Systems, of this EIR.

4.7.2 EXISTING ENVIRONMENTAL SETTING

The section below describes regional hydrology, the existing drainage patterns within the project site, including peak flows, existing water quality, and groundwater conditions.

Regional Hydrology

The 60.5-acre project site is located in the western portion of unincorporated El Dorado County, California. The project site is located within the Carson Creek subwatershed. The western slope of El Dorado County is comprised of three principal watersheds: the Middle Fork American River watershed, the South Fork American River watershed, and the Cosumnes River watershed. The Middle Fork American River watershed encompasses the northern region of the County and the southern region of Placer County. El Dorado County's portion of the Middle Fork American River watershed extends from the headwaters at Rockbound Valley in Desolation Wilderness, west to its terminus at the confluence with the North Fork American River, east of Auburn. The Rubicon River is the main tributary flowing into the Middle Fork, and receives flow upstream from the South Fork Rubicon River and Pilot Creek.

The South Fork American River watershed encompasses the central region of the County, extending from the headwaters at Echo Summit, west to the terminus at Folsom Reservoir. The major tributaries contributing flow directly into the South Fork American River are Silver Fork American River, Silver Creek, Slab Creek, Rock Creek, and Weber Creek.

1 CTA Engineering & Surveying. *Preliminary Drainage Report Town & Country Village, El Dorado*. May 2023.
2 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.
3 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report.* May 2003.
4 El Dorado Irrigation District. *2020 Urban Water Management Plan*. June 28, 2021.
5 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
6 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

The Cosumnes River watershed encompasses the southern region of El Dorado County and the northwestern region of Amador County. The watershed extends from the headwaters along the Iron Mountain Ridge west to where the Cosumnes River enters Sacramento County. The major tributaries flowing directly into the Cosumnes River are the South, Middle, and North Fork Cosumnes Rivers, and Canyon Creek.

Project Site and Surrounding Area Drainage

The project site is located approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road. Currently, the Project Development Area, which consists of the northernmost and southernmost 30.3 acres of the project site, is comprised of partially tree-covered land, with open grassy areas that generally slope from the northeast to the southwest. Existing storm drainage improvements and graded areas are located along the western edge of the site's Bass Lake Road frontage as part of the installation of a bike path. Existing drainage ditches and pipes are also located along Country Club Drive, which bisects the northern portion of the project site in a meandering east-west direction.

North of and generally parallel to Country Club Drive, an east-west intermittent drainage passes through the project site and flows through two 48-inch culverts beneath Bass Lake Road. A dirt road extends through the project site from Old Country Club Road to Bass Lake Road and crosses over a rock culvert that exists to allow an existing historical drainage to flow beneath the road. According to the Federal Emergency Management Agency (FEMA) the project site is designated as an Area of Minimal Flood Hazard Zone (Zone X) (see Figure 4.7-1).

As shown in Figure 4.7-2, the project site and portions of Bass Lake Road and Country Club Drive are currently split into 11 unnamed drainage sheds, which encompass a total of approximately 103.06 acres. Figure 4.7-2 depicts the location of each drainage shed and associated key point runoff locations. Runoff from the drainage sheds currently discharges to four primary locations (Key Points 1 through 4), which are located along the western and southern boundaries of the project site. Sheds A and A1, as so designated in the Preliminary Drainage Report, currently discharge to Key Point 1; Shed B discharges to Key Point 2; Sheds C, C1, C2, and C3 discharge to Key Point 3; and Sheds D, D1, D2, and D3 discharge to Key Point 4.

Existing runoff flow rates under a 100-year, 24-hour storm event were modeled as part of the Preliminary Drainage Report and are summarized in cubic feet per second (cfs) in Table 4.7-1.

Table 4.7-1
Existing On-Site 100-Year, 24-Hour Drainage Conditions

Key Point Runoff Locations	Existing 100-Year Flow (cfs)
Key Point 1	59.4
Key Point 2	18.8
Key Point 3	22.8
Key Pont 4	88.7
Total	**189.7**

Source: CTA Engineering & Surveying, 2023.

Figure 4.7-1
FEMA National Flood Hazard Layer FIRMette

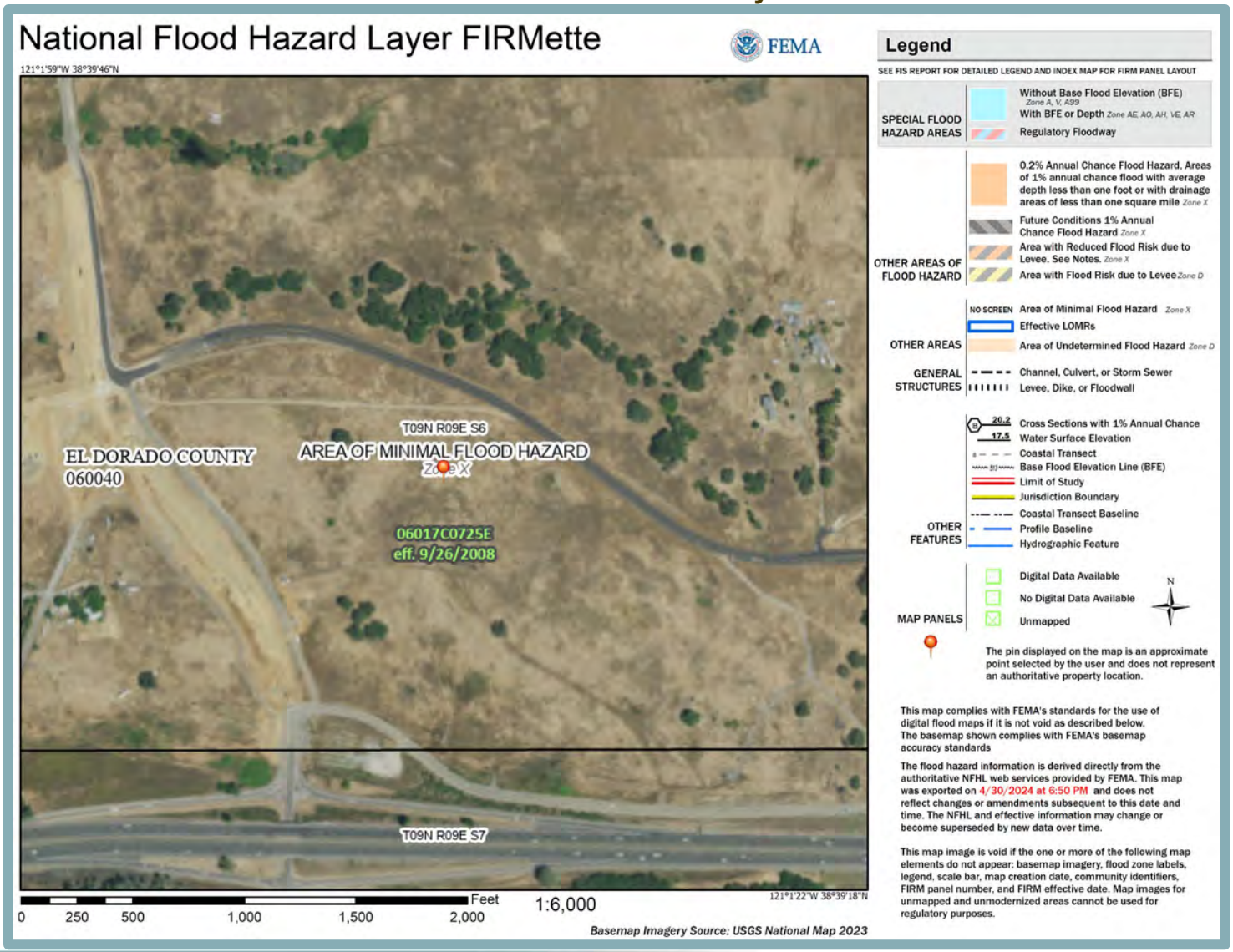
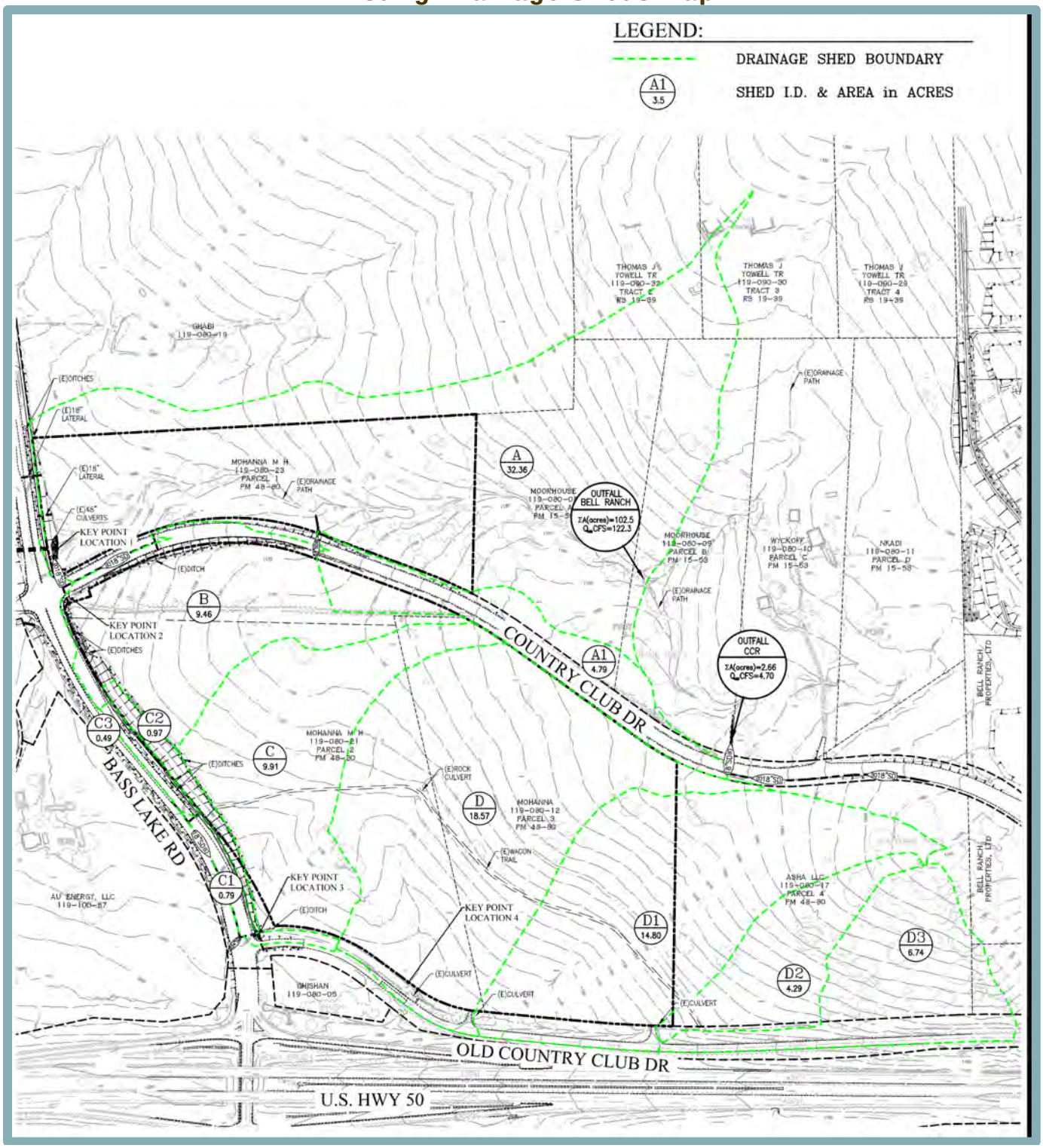


Figure 4.7-2
Existing Drainage Sheds Map



Source: CTA Engineering & Surveying, 2024.

Water Quality

Activities and/or conditions that have the potential to degrade water quality include, but are not limited to, construction activities and urban stormwater runoff. Construction activities have the potential to cause erosion and sedimentation associated with groundbreaking and clearing activities, which could cause unstabilized soil to be washed or wind-blown into nearby surface water. In addition, the use of heavy equipment during construction activities, especially during rainfall events, has the potential to cause petroleum products and other pollutants to enter nearby drainages.

Water quality degradation from urban stormwater runoff is primarily the result of runoff carrying pollutants from the land surface (i.e., streets, parking lots, etc.) to the receiving waters (i.e., 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). According to the Phase I Environmental Site Assessment prepared for the proposed project, the project site does not contain any known hazardous materials that could act as pollutants in nearby waterways.[7]

Groundwater

As discussed further in the Project Description chapter of this EIR, the proposed project would require annexation into the EID El Dorado Hills (EDH) water service region. According to the 2020 UWMP, the EID does not overlie a groundwater basin identified by California Department of Water Resources (DWR) Bulletin 118, which identifies high and medium priority groundwater resources in the State.

The EID's EDH region obtains its primary supplies under rights and entitlements from Folsom Reservoir. Water from the Folsom Reservoir is delivered to the EDH water treatment plant and currently serves Zone 2 of the EDH region. EID also has a separate recycled water system in the EDH system, which delivers treated wastewater from the El Dorado Hills Wastewater Treatment Plant (EDHWWTP) and the Deer Creek Wastewater Treatment Plant (DCWWTP) for residential and commercial landscape irrigation. Thus, the EDH region does not rely upon groundwater for water supplies. Chapter 4.13, Utilities and Service Systems, of this EIR provides a discussion of surface water supply within the County.

In addition, according to the County's General Plan EIR, the geology of the west slope of the County is primarily hard crystalline or metamorphic rock that forms the land surface, or underlies a thin soil or isolated alluvial cover. Although groundwater does not actually penetrate the hard rock mass, groundwater can be found in fractures below the ground surface. The characteristics of the fracture system that affect the ability of water users to develop groundwater resources include the size and location of the fractures, the interconnection between the fractures, and the amount of material that may be clogging the fractures. The width of fractures generally decreases with depth. Recharge, movement, and storage of water in fractures of hard rock are, therefore, limited. As such, the County cannot estimate the long-term reliability of groundwater with the same level of confidence that the reliability of a porous or alluvial aquifer could be estimated, the latter of which is common to the Central Valley of California.

[7] Youngdahl Consulting Group, Inc. *Phase I Environmental Site Assessment, The Town And Country Village El Dorado County APNs 119-080-012, -021, & -023 El Dorado Hills, California*. August 2022.

According to the Preliminary Geotechnical Engineering Study prepared by Youngdahl Consulting Group, Inc. (Younghdahl) for the proposed project,[8] perched water is common within the project area due to the shallow depth and low permeability of underlying rock. Perched water was encountered in the southern portion of the project site at depths of one foot in one hand auger boring and at two feet in two of the hand auger borings conducted as part of the Preliminary Geotechnical Engineering Study, which included excavation of 13 hand auger borings. The presence of perched water can vary due to factors such as the proximity to rock, topographic elevations, and the presence of utility trenches. Based on Youngdahl's experience, water may be perched on the bedrock horizon beneath the project site and could vary throughout the year with higher concentrations during or following precipitation.

It should be noted that two wells exist within the Program Study Area. One well has been abandoned, and one is still considered active. According to the project applicant, the active well is not currently used. Should development proceed within the Program Study Area at a later date, the project applicant would decide whether they would like to try to use the wells (most likely for landscape irrigation), or abandon the active well. If the active well were to be abandoned by the project applicant, the abandonment would be required to be conducted in compliance with the California DWR Water Well Standards, Bulletins 74-81 and 74-90, as well as the El Dorado County Well Construction and Water Supply Standards Ordinance.

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 proposed project.

Federal Emergency Management Agency

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 Flood Insurance Rate Maps (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 non-residential development 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.

[8] Youngdahl Consulting Group, Inc. *Preliminary Geotechnical Engineering Study for the Town and Country Village.* February 9, 2023.

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 USEPA 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 USEPA 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 USEPA 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 Construction 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 El Dorado County. When project construction is completed, the landowner must file a Notice of Termination (NOT).

NPDES 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 (MS4) (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 maximum extent practicable.

The Central Valley RWQCB issued the NPDES General Permit No. CAS000004 Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems, which became effective on July 1, 2013. 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). El Dorado County is a Phase II MS4 permittee. Projects subject to the requirements of the Phase II MS4 NPDES permit must submit the appropriate Post-Construction Stormwater Plan based on the project type/development category. Regulated Projects include projects that create or replace 5,000 square feet (sf) or more of impervious surface. Regulated Projects that create and/or replace one or more acres of impervious surface are considered regulated hydromodification management projects. The proposed project would create more than one acre of impervious area and, thus, is considered a Regulated Hydromodification Management Project subject to Phase II MS4 NPDES permit post-construction stormwater treatment requirements.

Regulated Projects are required to divide the project area into Drainage Management Areas (DMAs) and implement and direct water to appropriately sized Site Design Measures (SDMs) and Baseline Hydromodification Measures to each DMA to the Maximum Extent Practicable (MEP). Regulated Projects must additionally include Source-Control BMPs where possible. SDMs and Baseline Hydromodification Measures include, but are not limited to, the following:

- Rooftop and impervious area disconnection;
- Porous pavement;
- Rain barrels and cisterns;
- Vegetated swales;
- Bio-retention facilities;
- Green roofs; or
- Other equivalent measures.

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 proposed 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 project site is situated within the jurisdictional boundaries of the Central Valley RWQCB (Region 5). The Central Valley RWQCB has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction.

Central Valley Regional Water Quality Control Board

As authorized by the Porter-Cologne Water Quality Control Act, the Central Valley RWQCB'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 Central Valley RWQCB implements water quality protection measures by formulating and adopting water quality control plans (referred to as basin plans, as discussed further below) for specific groundwater and surface water basins, and by prescribing and enforcing requirements on all agricultural, domestic, and industrial waste discharges. The Central Valley RWQCB oversees many programs to support and provide benefit to water quality, including the following major programs: Agricultural Regulatory; Above-Ground Tanks; Basin Planning; California Federal Bank (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 Central Valley RWQCB is responsible for issuing permits for a number of varying activities. Activities subject to the Central valley RWQCB permitting requirements include stormwater, wastewater, and industrial water discharge, disturbance of wetlands, and dewatering. Permits issued and/or enforced by the Central Valley RWQCB include, but are not limited to, the NPDES Construction General Permit, NPDES Municipal Stormwater Permits, Industrial Stormwater General Permits, CWA Section 401 and 404 Permits, and Dewatering Permits.

Basin Plans and Water Quality Objectives

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 project site is located within the jurisdiction of the Central Valley RWQCB. A basin plan has been adopted for the Sacramento and San Joaquin River Basin (Basin Plan), which covers all of the project area.

The Basin Plan sets water quality objectives for the surface waters in its region for the following substances and parameters: ammonia, bacteria, biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, radioactivity, salinity, sediment, settleable material, suspended material, taste and odor, temperature, toxicity, turbidity, and pesticides. For groundwater, water quality objectives applicable to all groundwater have been set for bacteria, chemical constituents, radioactivity, taste, odors, and toxicity.

Senate Bill 5

In 2007, the State of California set the 200-year event as the Urban Level of Flood Protection (ULOP) for the State through a series of laws included in Senate Bill (SB) 5. Along with other related legislation, SB 5 established a mandate for local governments to amend their general plans and zoning codes to be consistent with State law on floodplain management. Specifically, SB 5 required 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 a 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.

As discussed above, the entirety of the project site is within Zone X, which is designated by FEMA as an Area of Minimal Flood Hazard. Therefore, the proposed project is not subject to SB 5 legislation.

Sustainable Groundwater Management Act

Groundwater management is outlined in the California Water Code Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as Assembly Bill (AB) 3030 and has since been modified by SB 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management Act (SGMA) (SB 1168, SB 1319, and AB 1739) in 2014. The intent of the SGMA is to encourage local agencies to work cooperatively to manage groundwater

resources within their jurisdictions and to provide a methodology for developing a Groundwater Management Plan.

The SGMA became law on January 1, 2015 and applies to all groundwater basins in the State (Water Code Section 10720.3). By enacting the SGMA, the Legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

The SGMA outlines four basic requirements: (1) development of a Groundwater Sustainability Agency; (2) development of a GSP or development of an Alternative Submittal; (3) implementation of the specific plan and management to meet quantifiable sustainability objectives; and (4) reporting of the implementation activities. As discussed above, the entirety of the project site does not overlie a groundwater basin identified by DWR Bulletin 118. Therefore, the proposed project is not subject to the requirements of the SGMA.

Local Regulations

Relevant goals and policies from the El Dorado County General Plan, as well as various other local guidelines and regulations related to hydrology and water quality, are discussed below.

El Dorado County General Plan

The following goals and policies from the El Dorado County General Plan related to hydrology and water quality are applicable to the proposed project.

Goal 5.4 STORM DRAINAGE: Manage and control storm water runoff to prevent flooding, protect soils from erosion, prevent contamination of surface waters, and minimize impacts to existing drainage infrastructure.

Objective 5.4.1 DRAINAGE AND FLOOD MANAGEMENT PROGRAM: Initiate a County-wide drainage and flood management program to prevent flooding, protect soils from erosion, and minimize impacts on existing drainage facilities.

Policy 5.4.1.1 Require storm drainage systems for discretionary development that protect public health and safety, preserve natural resources, prevent erosion of adjacent and downstream lands, prevent the increase in potential for flood hazard or damage on either adjacent, upstream or downstream properties, minimize impacts to existing facilities, meet the National Pollution Discharge Elimination System (NPDES) requirements, and preserve natural resources such as wetlands and riparian areas.

Policy 5.4.1.2 Discretionary development shall protect natural drainage patterns, minimize erosion, and ensure existing facilities are not

adversely impacted while retaining the aesthetic qualities of the drainage way.

Goal 6.4 FLOOD HAZARDS: Protect the residents of El Dorado County from flood hazards.

Objective 6.4.1 DEVELOPMENT REGULATIONS: Minimize loss of life and property by regulating development in areas subject to flooding in accordance with Federal Emergency Management Agency (FEMA) guidelines, California law, and the El Dorado County Flood Damage Prevention Ordinance.

Policy 6.4.1.1 Continue participation in the National Flood Insurance Program and application of flood plain zoning regulations to qualify for flood insurance and disaster assistance.

Policy 6.4.1.3 No new critical or high occupancy structures (e.g., schools, hospitals) shall be located in the 100-year floodplain of any river, stream, or other body of water.

Goal 7.1 SOIL CONSERVATION: Conserve and protect the County's soil resources.

Objective 7.1.2 EROSION/SEDIMENTATION: Minimize soil erosion and sedimentation.

Policy 7.1.2.2 Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.

Policy 7.1.2.3 Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.

Goal 7.3 WATER QUALITY AND QUANTITY: Conserve, enhance, and manage water resources and protect their quality from degradation.

Objective 7.3.1 WATER RESOURCE PROTECTION: Preserve and protect the supply and quality of the County's water resources including the protection of critical watersheds, riparian zones, and aquifers.

Policy 7.3.1.1 Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.

Objective 7.3.2 WATER QUALITY: Maintenance of and, where possible, improvement of the quality of underground and surface water.

Policy 7.3.2.1 Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.

Policy 7.3.2.2 Projects requiring a grading permit shall have an erosion control program approved, where necessary.

Policy 7.3.2.3 Where practical and when warranted by the size of the project, parking lot storm drainage shall include facilities to separate oils and salts from storm water in accordance with the recommendations of the Storm Water Quality Task Force's California Storm Water Best Management Practices Handbooks (1993).

Bass Lake Hills Specific Plan

The BLHSP was adopted November 7, 1995, as a coordinated planning program consistent with the El Dorado County General Plan for the development of 1,196 acres located in eastern El Dorado County. The plan area is located approximately three miles east of the Sacramento County/El Dorado County line within the underdeveloped eastern portion of El Dorado Hills and adjacent to the west end of Cameron Park. US 50 forms the southern Plan area boundary, and Bass Lake Road transects the area in a north/south direction. Bass Lake is located approximately 0.25-mile north of the plan area.

Pursuant to the BLHSP, new development shall convey stormwater drainage by way of the existing drainage courses. Plan policies provide for the use of natural channels for the collection and conveyance of stormwater runoff and do not propose substantial alteration of existing drainage catchments. Design of all storm drainage facilities and conveyance systems shall comply with the provisions in the appropriate sections of the El Dorado County Drainage Manual. The planning and design of drainage systems shall consider any potential downstream impacts, including those to existing drainage facilities, property, flow regimes, water quality, or riparian and wetlands areas.

El Dorado County Code

The applicable regulations set forth by the El Dorado County Code associated with hydrology and water quality are discussed further below.

Stormwater Quality Ordinance

Chapter 8.79, Stormwater Quality, of the El Dorado County Code is intended to ensure the County is compliant with State and federal laws; protect the health, safety, and general welfare of the citizens of El Dorado County; enhance and protect the quality of waters of the State in El Dorado County by reducing pollutants in stormwater discharges to the maximum extent practicable and controlling non-stormwater discharges to a stormwater facility; and require use of BMPs that will reduce the adverse effects of polluted runoff discharges on waters of the State. The Stormwater Quality Ordinance prohibits illicit discharges to a stormwater facility and establishes authority to adopt requirements for stormwater management and for development projects to reduce stormwater pollution and erosion during construction and operation.

Grading Ordinance

Chapter 110.14, Grading, Erosion, and Sediment Control, of the El Dorado County Code regulates grading within the unincorporated areas of El Dorado County in order to protect life, limb, health, property and public welfare; avoid pollution of watercourses; and ensure that the intended use of a graded site is consistent with the General Plan and any specific adopted plans, including the Western El Dorado County Storm Water Management Plan, State Fire Safe Standards, and relevant El Dorado County ordinances. The ordinance establishes the procedures for the issuance of grading permits, approval of plans, and inspection of construction sites. The ordinance also requires that waterways and adjacent properties be protected from erosion, flooding, or sediment deposits that could result from grading activities.

Western El Dorado County Storm Water Management Plan

The 2004 Western El Dorado County Storm Water Management Plan (SWMP) outlines a program to reduce the discharge of pollutants associated with the stormwater drainage systems serving the West Slope of the County. The Western El Dorado County SWMP only addresses the water quality component of the integrated management of stormwater resources approach envisioned for a Western El Dorado County SWMP. The Western El Dorado County SWMP's proposed stormwater management program includes public education and outreach, public involvement and participation, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control, and pollution prevention/good housekeeping. The Western El Dorado County SWMP also describes the County's monitoring, program evaluation, and reporting program, which includes collecting information on problem pollutants, monitoring the performance of stormwater controls in addressing the pollutants, and annually reporting progress and updates to the RWQCB. The Western El Dorado County SWMP requires compliance with the Grading Ordinance, discussed above, the El Dorado County Design and Improvement Standards Manual, and the El Dorado County Drainage Manual, which focuses on drainage priorities and provides criteria and procedures for the analysis and design of drainage facilities.

4.7.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to hydrology and water quality. 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 proposed project would result in any of the following:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Result in substantial erosion or siltation on- or off-site;
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or;
    - Impede or redirect flood flows (see Chapter 4.15, 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 4.15, 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.

As noted above, issues related to whether the proposed project would result in the following are discussed in Chapter 4.15, Effects Not Found to be Significant, of this EIR:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Impede or redirect flood flows; or
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

In addition, the proposed project's impacts associated with erosion or siltation on- or off-site are discussed in Chapter 4.5, Geology and Soils, of this EIR. As previously noted, water supply availability is addressed in Chapter 4.13, Utilities and Service Systems, of this EIR.

Method of Analysis

The impact analysis for this chapter is based primarily on the Preliminary Drainage Report prepared for the proposed project by CTA Engineering & Surveying.

Design runoff was computed as part of the Preliminary Drainage Report using the USACE Hydrologic Engineering Center Hydrologic Modeling System (HEC-HMS) computer program, which was also used to assess the effectiveness of the proposed on-site detention storage. HEC-HMS computations simulate the rainfall-runoff process for a 24-hour storm assumed to occur uniformly over the study area. The computations utilize the Soil Conservation Service (SCS) dimensionless unit hydrograph method to transform precipitation excess (defined as rainfall not lost to surface retention by vegetation, cracks and crevices, local depressions, etc., or infiltrated into the ground) into runoff. Precipitation losses are computed within the program on the basis of a runoff curve number (CN) assigned to each drainage shed. CN values reflect

land usage and the runoff potential of underlying soils. Detailed HEC-HMS calculations are provided in Appendix D of the Preliminary Drainage Report.

Additionally, the two proposed culverts within the project site were sized using the calculations from previous drainage shed maps, the Bell Ranch: Post-Project Drainage Key Points and Detention Basins Shed Map and the Bass Lake Road & Country Club Drive Extension Drainage Shed Map, which are included in Appendix E of the Preliminary Drainage Report.

Project 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 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*.

The proposed project would include construction of the Project Development Area, which would consist of the northernmost and southernmost 30.3 acres of the project site, and would be developed with two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended stay basis. Additionally, the proposed project would include future development of the Program Study Area, which could consist of the central and easternmost 30.2 acres of the project site and may include future development of additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts. Buildout of the Project Development Area is evaluated herein at a project level, while buildout of the Program Study Area is evaluated at a program level. Given that development of both components of the proposed project would result in the construction of similar land uses on contiguous parcels, the following discussion applies to the potential for both components to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality during construction.

Project Development Area and Project Buildout

Construction of the proposed project would include grading, excavation, trenching for utilities, and other construction-related activities that could cause soil erosion at an accelerated rate during storm events. All such activities have the potential to affect water quality and contribute to localized violations of water quality standards if impacted stormwater runoff from construction activities enters downstream 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 proposed project would require construction activities that would result in a land disturbance of 30.3 acres for the Project Development Area and 30.2 acres for the Program Study Area (greater than one acre), the project applicant would be required by the State to comply with the most current Construction General Permit requirements. Consistent with the requirements, a SWPPP would be prepared for the proposed 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 the Central Valley RWQCB.

Development of the SWPPP would include plans to treat stormwater runoff in accordance with the standards of the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment. In addition, pursuant to Section 8.79.100 of the El Dorado County Code, any person subject to any individual and/or industrial NPDES stormwater discharge permit must comply with all provisions of said permit, SWPPP, and any regulations or ordinances promulgated thereto.

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:

- Good housekeeping activities such as storing of materials covered and elevated off the ground, in a central location;
- Securely locating portable toilets away from the storm drainage system and performing routine maintenance;
- Providing a central location for concrete washout and performing routine maintenance;
- Providing several dumpsters and trash cans throughout the construction site for litter/floatable management; and

- Covering and/or containing stockpiled materials and overall good housekeeping on the site.

While the final materials management BMPs to be used during construction of the proposed project are currently unknown, the proposed 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 CASQA Stormwater BMP Handbooks and implemented by the project contractor.

In accordance with the Construction General Permit and El Dorado County Code Section 8.79.130, the project site would also be inspected during construction before and after storm events and every 24 hours during extended storm events in order to identify maintenance requirements for the implemented BMPs and to determine the effectiveness of the implemented BMPs. As a "living document", the site-specific SWPPP prepared for the proposed 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 NPDES Construction General Permit and El Dorado County Code Chapter 8.79 as described above, would minimize the potential degradation of stormwater quality and downstream surface water associated with construction of the proposed project. In addition, BMPs would be required to be designed in accordance with the CASQA Stormwater BMP Handbook for New Development and Redevelopment. However, because a SWPPP has not yet been prepared for the proposed project, proper compliance with the aforementioned regulations cannot be ensured at this time, and the proposed project's construction activities could violate water quality standards or waste discharge requirements or otherwise degrade water quality. As a result, the proposed 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.

Project Development Area and Project Buildout

4.7-1 Implement Mitigation Measure 4.5-2.

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*.

The Preliminary Drainage Report addresses only the Project Development Area. The potential for the Project Development Area and full Project Buildout to violate water

quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality during operations is discussed separately below.

Project Development Area

Development within the Project Development Area would include two 150-room hotels, 112 residential cottages, retail uses, restaurants, an event center/museum, recreational amenities, and parking lots. Such new land uses could result in new stormwater pollutants being introduced to the project area. Pollutants associated with the operational phase of the proposed 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 project 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 wildlife and human activities) have the potential to affect downstream water quality.

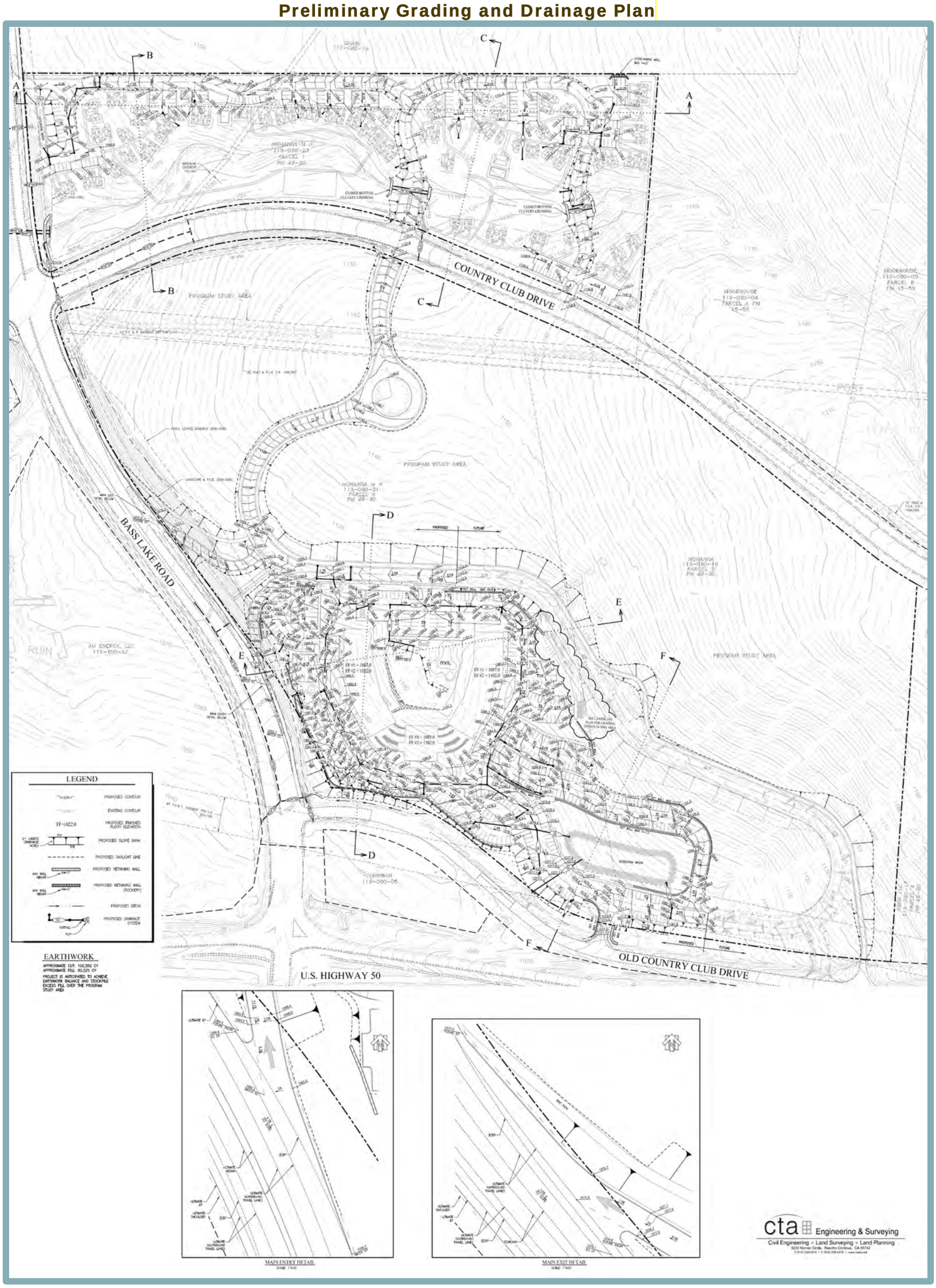
Development of the proposed project could also increase polluted non-stormwater runoff (e.g., wash water and landscape irrigation runoff). Such non-stormwater runoff could flow down sidewalks, parking areas, and streets, and pick up additional pollutants deposited on impervious surfaces prior to discharge into the storm drain system and surface waters. Discharge of polluted stormwater or non-stormwater runoff could violate waste discharge requirements.

Proposed Storm Drain System

The project site is located within the permit area covered by El Dorado County's MS4 Permit (NPDES General Permit No. CAS000004, Order No. 2013-0001-DWQ), pursuant to the NPDES Phase II program. Project-related stormwater discharges are subject to all applicable requirements of said permit. Specifically, as noted above, regulated projects are required to divide the project area into DMAs and implement and direct water to appropriately sized SDMs and Baseline Hydromodification 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, or equivalent manual, and must be shown on the Improvement Plans.

As shown in Figure 4.7-3, runoff from new impervious surfaces within the northern and southern portions of the Project Development Area would be directed towards inlets installed in various locations along the internal drive aisles.

Figure 4.7-3
Preliminary Grading and Drainage Plan



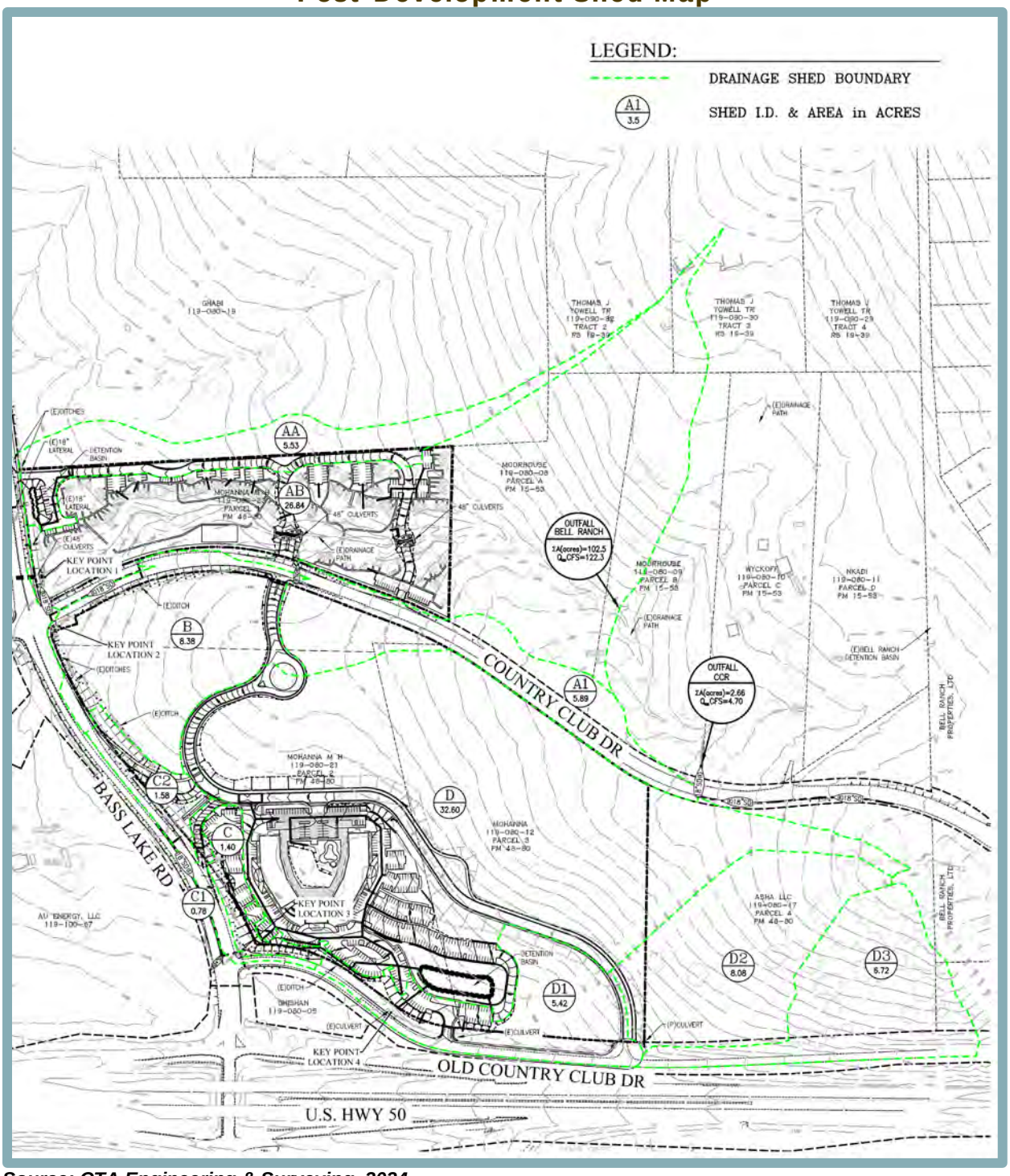
From the inlets in the northern portion of the Project Development Area, where the cottage units would be located, flows would be conveyed through new storm drain lines to either outfalls that would discharge to the east-west intermittent drainage to the north of Country Club Drive, or to a new detention basin, which would be located in the northwest portion of the project site immediately south of the northernmost site emergency access connection to Bass Lake Road. From the inlets in the southern portion of the Project Development Area, runoff from new impervious surfaces would be collected by inlets installed along the internal drive aisle network and conveyed to a new detention basin located immediately north of the southernmost site entrance from Old Country Club Drive.

A Final Drainage Report would be prepared for the proposed project at the project improvement plan stage and would be subject to review and approval by the County. In accordance with the requirements established by the County's NPDES Phase II MS4 permit, the SDMP would be required to identify the DMAs that would comprise the Project Development Area. Additionally, as part of approval of the SDMP, the proposed project would be required to demonstrate how the aforementioned proposed drainage improvements comply with applicable SDM and Baseline Hydromodification Measure requirements, including the proposed detention basins, as well as treatment-control BMPs and Low-Impact Development (LID) measures. The following treatment-control BMPs could also be incorporated into the final project design:

1. Incorporation or land use planning measures to minimize water quality impacts within the final project design, including stream buffers and restoration activities;
2. Reduction of the site's impervious surfaces, conservation of natural resources and areas, maintenance and use of natural drainage courses in the stormwater conveyance system, and minimization of clearing and grading;
3. When landscaping is required or proposed, provision of runoff storage measures dispersed uniformly throughout the site's landscape with the use of a variety of detention, retention, and runoff practices;
4. Implementation of on-site hydrologically functioning landscape design and management practices; and
5. Minimization of directly connected impervious areas.

Furthermore, the Final Drainage Report would also be required to specify Source-Control Measures to be implemented for potential pollutant-generating activities or sources present on the project site. The Source-Control Measures could include, but not be limited to, measures related to proper storage of all project materials, use of environmentally friendly materials for indoor and structural pest control, and compliance with manufacturer recommendations and regulations related to pesticide use. The source control measures would be required to be designed consistent with the recommendations from the CASQA Stormwater BMP Handbook for New Development and Redevelopment, or from another equivalent manual. The proposed stormwater system would also 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). Thus, compliance with the NPDES Phase II MS4 permit would ensure that project runoff is properly treated, prior to discharging to the Key Points shown on Figure 4.7-4 to prevent the pollution of downstream waterways.

Figure 4.7-4
Post-Development Shed Map



Source: CTA Engineering & Surveying, 2024.

Proposed Septic System

As discussed further in the Project Description chapter of this EIR, two alternatives are currently proposed for providing sewer service to the project site. The first alternative consists of the construction of an approximately 10,510-foot BLHSP sewer main connecting the project site to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Road, approximately 1.6 miles to the west. The second alternative includes a septic sewer system as an interim solution for the Project Development Area. A study by Youngdahl Consulting Group determined that the Program Study Area is the most likely suitable area for construction of a septic system leach field.

The Preliminary Sanitary Sewer Feasibility Study prepared by CWE (see Appendix K of this EIR)[9] evaluated three septic design options for the Project Development Area. The preferred alternative is a capping fill or mound system septic disposal system, which would require a pressure system with the disposal areas uphill of the septic tanks. The pressure system components would be comprised of a septic tank, pump tank, and dispersal field. The dispersal field trenches would be between one and two feet deep, and three feet wide, and would be constructed with a minimum of one foot of capping fill. The preferred alternative system would be required to be designed with the applicable standards of the El Dorado County Onsite Wastewater Treatment Systems Manual.[10]

Pursuant to the Onsite Wastewater Treatment Systems Manual, a minimum effective soil depth of five feet below the design depth is required; however, the two- to three-foot depth of practical soil eliminates the feasibility of using traditional leaching trenches. Thus, a Special Design Onsite Wastewater Treatment System would be required. Because the proposed project would exceed 10,000 gallons per day, approval from the Central Valley RWQCB would be required for the development of the proposed septic system.

Impacts related to the proposed septic system are discussed further in Chapter 4.13, Utilities and Service Systems, of this EIR. However, it should be noted that as part of the Preliminary Sanitary Sewer Feasibility Study, percolation tests were conducted to determine soil suitability for the proposed septic system, and potential impacts to groundwater quality. The proposed special design septic system is an Orenco AdvanTex Commercial Treatment System, comprised of a Standard AdvanTex system with a four-stage treatment configuration, including primary treatment, Pre-anoxic treatment, Standard AdvanTex Treatment, and a Pre-Anoxic Return line. The septic system would include primary and secondary treatment. The treatment system would typically achieve treatment levels of less than 10 milligrams per liter (mg/L) for five-day biochemical oxygen demand (BOD5), and total suspended solids (TSS) (based on 30-day average or 30-day arithmetic mean). The treatment system would typically provide reduction of total nitrogen (TN) greater than 60 percent, and removal of 95 percent of ammonia. If higher levels of effluent treatment are required, modifications could be provided to the final treatment design. During the field percolation tests, perched groundwater was only encountered at the southern end of the project site.

[9] CWE. *Preliminary Sanitary Sewer Feasibility Study for Town and Country El Dorado Hills, CA*. April 3, 2024.
[10] El Dorado County Environmental Management Department. *Local Agency Management Plan & Onsite Wastewater Treatment System Guide*. Updated September 10, 2018.

With the use of the treatment system, the effluent would not result in harmful impacts to groundwater in the unlikely event that effluent penetrates to the groundwater. As such, with the use of the proposed system, treated effluent is not anticipated to harm groundwater in the unlikely event that the effluent penetrates the groundwater.

In addition, the proposed on-site wastewater treatment system would also be required to adhere to all requirements included in Chapter 110.32, Onsite Wastewater Treatment Systems, of the El Dorado County Code, which would ensure compliance with applicable standards, laws, and guidelines as adopted, and/or modified by the SWRCB and RWQCB. Compliance with the aforementioned standards and permit requirements would ensure that the proposed on-site wastewater treatment system would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during operations.

Project Buildout

Future development of the Program Study Area would be similarly subject to the County's NPDES Phase II MS4 permit. Thus, BMPs, SDMs, Baseline Hydromodification Measures, and/or LID measures would be required to be identified and incorporated into the Final Drainage Report and designed in compliance with the applicable recommendations from the CASQA Stormwater BMP Handbook for New Development and Redevelopment, prior to development of the Program Study Area. Compliance with the NPDES Phase II MS4 permit would ensure that future runoff within the Program Study Area is properly treated, prior to discharging from the project site.

In order to ensure continued operation of the proposed stormwater control features, a detailed site-specific inspection and maintenance procedures plan should be implemented. For example, plants and vegetation within the detention basins should be inspected monthly, and the basins should be inspected for the presence of standing water 72 hours after rain events. Required maintenance activity should include, but not necessarily be limited to, removal of debris from basins and removal of debris from outlets of basins. Without implementation of such measures, the basins and other BMPs, SDMs, Baseline Hydromodification Measures, and/or LID measures identified by the SDMP could fail to ensure that polluted runoff would not enter downstream water bodies during the operation of the project.

As discussed above, the Program Study Area is the most likely suitable area for construction of a septic system leach field that would serve the Project Development Area. The septic system would be abandoned prior to future development within the Program Study Area in accordance with the standard El Dorado County procedures. The proposed project would be required to connect to the public sewer system prior to development of the Program Study Area, and the applicant would apply for a permit with the El Dorado County Environmental Management Department to abandon the septic system, which would be subject to inspection and approval. The septic tanks would be disconnected, emptied, and either destroyed or filled prior to development of the Program Study Area.

Conclusion

Based on the above, the proposed project could violate water quality standards or waste discharge requirements or otherwise result in substantial degradation of surface or groundwater quality during operations, 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.

Project Development Area

4.7-2(a) *As part of the Improvement Plan submittal process, the Preliminary Drainage Report provided during environmental review shall be submitted in final format. The Final Drainage Report may require more detail than that provided in the preliminary report, and will be reviewed in concert with the Improvement Plans to confirm conformity between the two. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: written text addressing existing conditions; the effects of the proposed improvements; all appropriate calculations; watershed maps; changes in flows and patterns; and proposed on- and off-site improvements to accommodate flows from the project. The report shall identify water quality protection features and methods to be used during construction, as well as long-term post-construction water quality measures. The final drainage report shall be prepared in conformance with the requirements set forth by El Dorado County at the time of Improvement Plan submittal and shall be approved by the El Dorado County Planning and Building Department and the County Engineer.*

4.7-2(b) *Prior to approval of final project improvement plans, a detailed Best Management Practice (BMP) and water quality maintenance plan shall be submitted to the El Dorado County Planning and Building Department, and the County Engineer for review and approval as part of preparation of the project's Final Drainage Report. The BMP and water quality maintenance plan shall meet the standards of the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment. 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(c) *Prior to approval of final project improvement plans, the project applicant shall submit a Report of Waste Discharge and a Form 200 to obtain coverage under the State Water Resources Control Board (SWRCB) Order WQ 2014-0153-DWQ, General Waste Discharge Requirements (WDR) for Small Domestic Wastewater Treatment Systems. All WDR Permit requirements shall be incorporated into the project design and shown on the improvement plans. Proof of compliance shall be submitted to the El Dorado County Planning and Building Department for review and approval.*

4.7-2(d) *Prior to the completion of construction, the applicant shall prepare and submit an acceptable Stormwater Control Operation and Maintenance Plan, identifying the maintenance entity for the project's storm drainage system and maintenance requirements, for review and approval to the El Dorado County Planning and Building Department. The Stormwater Control Operation and Maintenance Plan shall be incorporated into the project's Final Drainage Plan. Typical routine maintenance consists of the following:*

- *Limit the use of fertilizers and/or pesticides. Mosquito larvicides shall be applied only when absolutely necessary.*
- *Visually inspect for ponding water to ensure that filtration is occurring.*
- *After all major storm events, inspect basins to ensure that the system is functioning as intended and is not clogged.*
- *Continue general landscape maintenance, including pruning and cleanup throughout the year.*
- *Irrigate throughout the dry season. Irrigation shall be provided with sufficient quantity and frequency to allow plants to thrive.*
- *Excavate, clean and or replace and screen or filter media to ensure ongoing infiltration.*

Project Development Area and Project Buildout

4.7-2(e) *As part of the Improvement Plan submittal process for each component of subsequent development associated with the Program Study Area, a Drainage Report shall be prepared by a Registered Civil Engineer that includes pre- and post-development hydrology calculations, as well as calculations for required treatment areas to ensure that the separately constructed on-site drainage systems comply with the El Dorado County Stormwater Management Plan (SWMP) and the NPDES Phase II MS4 General Permit, and any other applicable regulations at the time of permit issuance. The drainage report shall be submitted to the El Dorado County Planning and Building Department and the County Engineer for review and approval.*

4.7-3 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may 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*.

Given that the Project Development Area and the Program Study Area would be provided water from the same source, the following discussion applies to the potential for both phases of the proposed project to substantially deplete 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.

Project Development Area and Project Buildout

Water service for the proposed project would be provided by the EID, following annexation of the project site into the EID service area. The EID's EDH water service region, in which the project site would be located, draws water from the Folsom Reservoir. Thus, the proposed project would not be served water from groundwater supplies.

Furthermore, the project site is not considered a site of substantial groundwater recharge, as the project site is underlain by low-permeability rock. Consequently, the proposed project would not result in substantial interference with groundwater recharge. It should also be noted that while the proposed project would result in new impervious surfaces, which would reduce the infiltration of runoff as compared to existing conditions, use of detention basins to collect and store runoff from the new impervious surfaces would allow for some infiltration during post-project conditions.

Based on the above, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.7-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The following discussions include a project-level analysis of potential impacts associated with development of the Project Development Area and a program-level analysis of potential impacts associated with the Program Study Area.

Project Development Area

Increases to peak runoff rates 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. The Preliminary Drainage Report

evaluated the potential for post-project conditions to exceed pre-project conditions though evaluation of the 100-year, 24-hour storm event using the HEC-HMS computer program (discussed further in the Method of Analysis section above).

According to the Post-Development Schematic within Appendix D of the Preliminary Drainage Report, runoff from surfaces from post-development Shed AA, Shed AB, and Shed A1 would enter Key Point 1, located immediately north of the intersection of Country Club Drive and Bass Lake Road; runoff from surfaces from post-development Shed B would enter Key Point 2, located immediately south of the intersection of Country Club Drive and Bass Lake Road; runoff from post-development Shed C, C1, and C2 would enter Key Point 3, located at the intersection of Bass Lake Road and Old Country Club Drive; and runoff from surfaces from post-development Shed D, Shed D1, and Shed D3 would enter Key Point 4, located near the southwestern boundary of the project site. As shown above in Figure 4.7-4 and summarized in Table 4.7-2, the rate of pre-development peak flows would not be exceeded by post-project peak flows at Key Points 1 through 4. Therefore, the proposed project would not increase the rate of runoff leaving the project site during the design storm event.

Table 4.7-2
Post-Project 100-Year Flow Drainage Conditions (cfs)

Key Point	Existing Conditions	Post-Project Conditions
Key Point 1	59.4	69.6
Key Point 2	18.8	22.6
Key Point 3	22.8	11.1
Key Point 4	88.7	81.5
Total	**189.7**	**184.8**

Source: CTA Engineering & Surveying, 2023.

Additionally, the Preliminary Drainage Report evaluated the potential for culvert flows at the two crossings, both located within the northeast portion of the Project Development Area, to exceed pre-project conditions under post-project conditions. Flows at the two new crossings were modeled using calculations from the Bell Ranch: Post-Project Drainage Key Points and Detention Basins Shed Map and the Bass Lake Road & Country Club Drive Extension Drainage Shed Map (presented in Appendix E of the Preliminary Drainage Report). As shown therein, following detention of flows on the Bell Ranch site, runoff would converge with the east-west intermittent drainage north of Country Club Drive (as identified by “Outfall Bell Ranch” on Figure 4.7-4) and drain to Shed AB within the project site. In addition, a small shed on the Bass Lake Road & Country Club Drive Extension site drains to the east-west intermittent drainage from Outfall CCR on Figure 4.7-4. Table 4.7-3 summarizes the post-project flow rates from the two Key Points (Key Points 1 and 2) that flow to the existing 48-inch culverts beneath Bass Lake Road.

The aforementioned convergence of flows from the Bell Ranch and Bass Lake Road & Country Club Drive Extension sites with the east-west intermittent drainage is also displayed as “Crossing C” on the Bass Lake Road & Country Club Drive Extension Drainage Shed Map, which shows a total 100-year flow of 263 cfs. The foregoing runoff rate included assumption of future development of 0.5-acre of residential lots within a 150-acre drainage shed. Because such a scenario would result in greater impervious surfaces than what is proposed for the Project Development Area, assuming a 263 cfs

flow rate is conservative. Thus, because the 48-inch culverts were sized for 263 cfs at Crossing C, the 48-inch culverts proposed by the project at the two new crossings would be adequately sized to accommodate a flow rate of 194.8 cfs.

Table 4.7-3
Culvert Flows

Sheds	100-Year Flow (cfs)
Outfall Bell Ranch	122.3
Outfall CCR	4.70
Key Point 1	69.6
Key Pont 2	22.6
Total	**219.2**

Source: CTA Engineering & Surveying, 2023.

However, because a Final Drainage Report has not yet been prepared for the proposed project, development of the Project Development Area could create or contribute runoff water that would exceed the existing on-site storm drainage system's capacity, provide substantial sources of polluted runoff, or redirect flood flows. As a result, the proposed project could result in a significant impact.

Project Buildout

Future development of additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts as part of buildout of the Program Study Area would result in additional impervious surfaces that could alter the existing drainage pattern of the site and increase the rate of surface runoff. All future development would be required to be designed in accordance with the applicable provisions of the NPDES Phase II MS4, which contains the requirements for drainage design. In addition, with incorporation of the LID features designed and installed in compliance with applicable standards set forth by the CASQA Stormwater BMP Handbook for New Development and Redevelopment, future peak flows exiting site would be required not to increase under post-project condition.

Nonetheless, without the preparation of a drainage report to verify the adequacy of the final drainage system design, future development of the Program Study Area could create or contribute runoff water that would exceed the existing on-site storm drainage system's capacity, provide substantial sources of polluted runoff, or redirect flood flows. Therefore, a significant impact could occur.

Conclusion

Based on the above, the proposed project could create or contribute runoff water that would exceed the existing on-site storm drainage system's capacity, provide substantial sources of polluted runoff, or redirect flood flows. Thus, the proposed project could result in a ***significant*** impact.

Mitigation Measure(s)

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

Project Development Area
4.7-4(a) Implement Mitigation Measure 4.7-2(a).

Project Development Area and Project Buildout
4.7-4(b) Implement Mitigation Measure 4.7-2(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.

The cumulative setting for impacts related to hydrology and water quality encompasses the Carson Creek subwatershed. Additional detail regarding the cumulative project setting can be found in Chapter 5, Statutorily Required Sections, of this EIR.

4.7-5 Cumulative impacts related to the violation of water quality standards or waste discharge requirements, and impacts resulting from the alteration of existing drainage patterns. Based on the analysis below, the cumulative impact is *less than significant*.

The cumulative geographic setting for hydrology is the Carson Creek subwatershed. Potential impacts related to stormwater quality, groundwater, and drainage patterns that could occur as a result of reasonably foreseeable future development in the watersheds, in conjunction with the proposed project, are discussed separately below.

Stormwater Quality

Construction activities have the potential to affect water quality and contribute to localized violations of water quality standards if stormwater runoff from construction activities enters receiving waters. Runoff from additional construction sites within the project area could carry sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products, which could result in water quality degradation if runoff containing such materials enters receiving waters in sufficient quantities. Thus, construction activities associated with the proposed project, in combination with the construction activities of reasonably foreseeable projects in the Carson Creek subwatershed, could result in potential cumulative impacts related to water quality. However, all construction projects resulting in disturbance of one acre or more of soil are required to comply with the provisions set forth by the NPDES Construction General Permit. Conformance with the Construction General Permit would require preparation of SWPPPs for all such projects, and subsequent implementation of BMPs to prevent the discharge of pollutants. Considering the existing permitting requirements for construction activity in the project vicinity, cumulative construction within the Carson Creek subwatershed would be heavily regulated and impacts related to the degradation of water quality would be minimized to the extent feasible. Similar to the proposed project, cumulative

development that could occur within the Carson Creek subwatershed would also be subject to the applicable provisions of the NPDES Phase II MS4 Permit and the County's Stormwater Quality Ordinance, discussed above.

Based on the above, compliance with the foregoing regulations would ensure that potential cumulative impacts that could occur as a result of reasonably foreseeable future development within the Carson Creek subwatershed related to stormwater quality would be minimized to the maximum extent feasible.

Groundwater

As discussed under Impact 4.5-2, the EID does not currently pump groundwater, nor plans to in the future. Furthermore, the project site 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. Thus, cumulative development would not be anticipated to substantially decrease groundwater supplies.

Drainage Patterns

Cumulative development within the Carson Creek subwatershed in combination with the proposed project, would introduce new impervious surfaces that would alter the existing drainage pattern of the area. However, all new storm drain and detention infrastructure installed as part of cumulative development would be required to be designed in accordance with the applicable provisions of the Western El Dorado County SWMP and the County Drainage Manual, which contains the County's requirements for drainage design, including criteria for design runoff, hydraulic grade line, inlets, culverts, drainage pipe sizes, and detention ponds. In addition, with incorporation of the LID features designed and installed in compliance with applicable standards set forth by the CASQA Stormwater BMP Handbook for New Development and Redevelopment, peak flows exiting future development sites would not increase in the post-project condition. Furthermore, future projects would similarly be required to comply with the applicable NPDES Phase II MS4 requirements. Through compliance with the aforementioned requirements, while cumulative development would introduce new impervious surfaces that would alter the existing drainage pattern of the Carson Creek subwatershed, post-development peak flows would be attenuated to equal or less than that of pre-development flows, and cumulative development within the watersheds, in combination with the proposed project, would not create or contribute runoff water that would exceed the existing on-site storm drainage system's capacity, provide substantial sources of polluted runoff, or redirect flood flows.

Conclusion

Based on the above, the proposed project, in combination with cumulative development within the watersheds, would be required to comply with applicable regulations that would ensure would cumulative development does not result in degradation of surface or groundwater quality, depletion of groundwater supplies, the substantial loss of groundwater recharge, or create or contribute runoff water that would exceed the existing on-site storm drainage system's capacity, provide substantial sources of polluted runoff, or redirect flood flows. Thus, with implementation of the Mitigation Measures included herein for project-level impacts, a ***less-than-significant*** cumulative impact would occur.

Mitigation Measure(s)

None required.

4.8. Land Use and Planning / Population and Housing

4.8. LAND USE AND PLANNING / POPULATION AND HOUSING

4.8.1 INTRODUCTION

The purpose of the Land Use and Planning/Population and Housing chapter of the EIR is to examine the proposed project's compatibility with existing land uses in the area and identify any inconsistencies with applicable land use plans, policies and regulations adopted by the County for the purpose of avoiding or mitigating environmental effects, including the El Dorado County General Plan[1] and the Bass Lake Hills Specific Plan (BLHSP).[2] Furthermore, the chapter includes discussion of the potential for the project to induce substantial unplanned population growth in the project area, either directly or indirectly. 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 El Dorado County General Plan, the El Dorado County General Plan EIR,[3] the El Dorado County 2013-2021 Housing Element,[4] the BLHSP, and the Bass Lake Road Study Area Program EIR (Bass Lake EIR).[5]

4.8.2 EXISTING ENVIRONMENTAL SETTING

This section describes the existing land uses on the project site and within the surrounding area, as well as the existing plans and policies that guide the development of the project site. In addition, the Existing Environmental Setting section describes current population and housing trends in the project region.

Project Site Characteristics and Surrounding Land Uses

The 60.5-acre project site is located in the southern central portion of the BLHSP area and consists of two areas: the Project Development Area, which includes the northernmost and southernmost 30.3 acres of the project site, and the Program Study Area, which includes the central and easternmost 30.2 acres of the project site. The project site generally consists of undeveloped annual grassland with shrubs and trees scattered throughout. An east-to-west roadway known as Country Club Drive bisects the northern portion of the project site, and Bass Lake Road runs north-south along the western site boundary frontage. U.S. Highway 50 (US 50) is located approximately 500 feet south of the project site boundaries. The project site also includes several off-site improvement areas associated with the proposed water, sewer, and natural gas lines, bike path, and pedestrian bridge improvements. The proposed off-site improvements would primarily occur along Bass Lake Road, with the proposed off-site sewer line also extending along US 50.

Surrounding land uses include undeveloped land and rural residences within the BLHSP to the north; rural residences to the west; the El Dorado Hills Fire Department (EDHFD) Station 86 to

1 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.
2 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
3 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.
4 El Dorado County. *2013-2021 Housing Element.* Adopted October 29, 2013.
5 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

the northwest; undeveloped land and rural residences to the south, across US 50; and undeveloped land to the east, with the Holy Trinity Parish and School located farther east. It should be noted that in recent years, multiple Tentative Subdivision Maps have been approved for properties within the BLHSP, north of the project site, which are undergoing development.

The northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region. Pursuant to the County's General Plan, Community Regions and Rural Regions both indicate areas where future growth and urban uses are anticipated and/or where such development would be directed by the County. Community Regions provide population growth and economic expansion while emphasizing the built design elements of the County in addition to the natural setting. Rural Regions Provide a land use pattern that maintains the open character of the County, preserves local natural resources, recognizes the constraints of the land and the limits related to the availability of infrastructure and public services, and preserves the agricultural and forest/timber areas to ensure long-term viability. As such, both the Community and Rural Region areas can operate either as areas for the expansion of existing communities or as the projected locations of new communities. It should be noted that the Rural Region area is distinct from the County's Rural Centers, which are described as defined centers within Rural Regions that provide focused activity, as well as goods and services, to the surrounding areas.

The project site is not within the existing service area for El Dorado Irrigation District (EID). The proposed project would annex the site into EID's service area, which would require approval from the El Dorado Local Agency Formation Commission (LAFCo).

Land Use Designations and Zoning Districts

The El Dorado County General Plan Land Use Diagram labels the project site as being within an "Adopted Plan." As previously discussed, the project site is located within the BLHSP. The BLHSP land use designations for the project site are Low Density Residential Planned Development (-PD) with a maximum allowable density of 0.2 dwelling units per acre (du/ac) (L.2-PD) and Low Density Residential Planned Development with a maximum allowable density of 0.7 du/ac (L.7-PD). The County General Plan includes the L.7-PD areas in the Community Region and the L.2-PD areas in the Rural Region. The proposed project would amend the Community Region boundary to include the entire project site in the Community Region. The project site is zoned Residential Estate-10 acres (RE-10) (see Figure 4.8-1). Table 4.8-1 provides a summary of the current BLHSP land use designations and zoning districts of the properties surrounding the project site, as applicable.

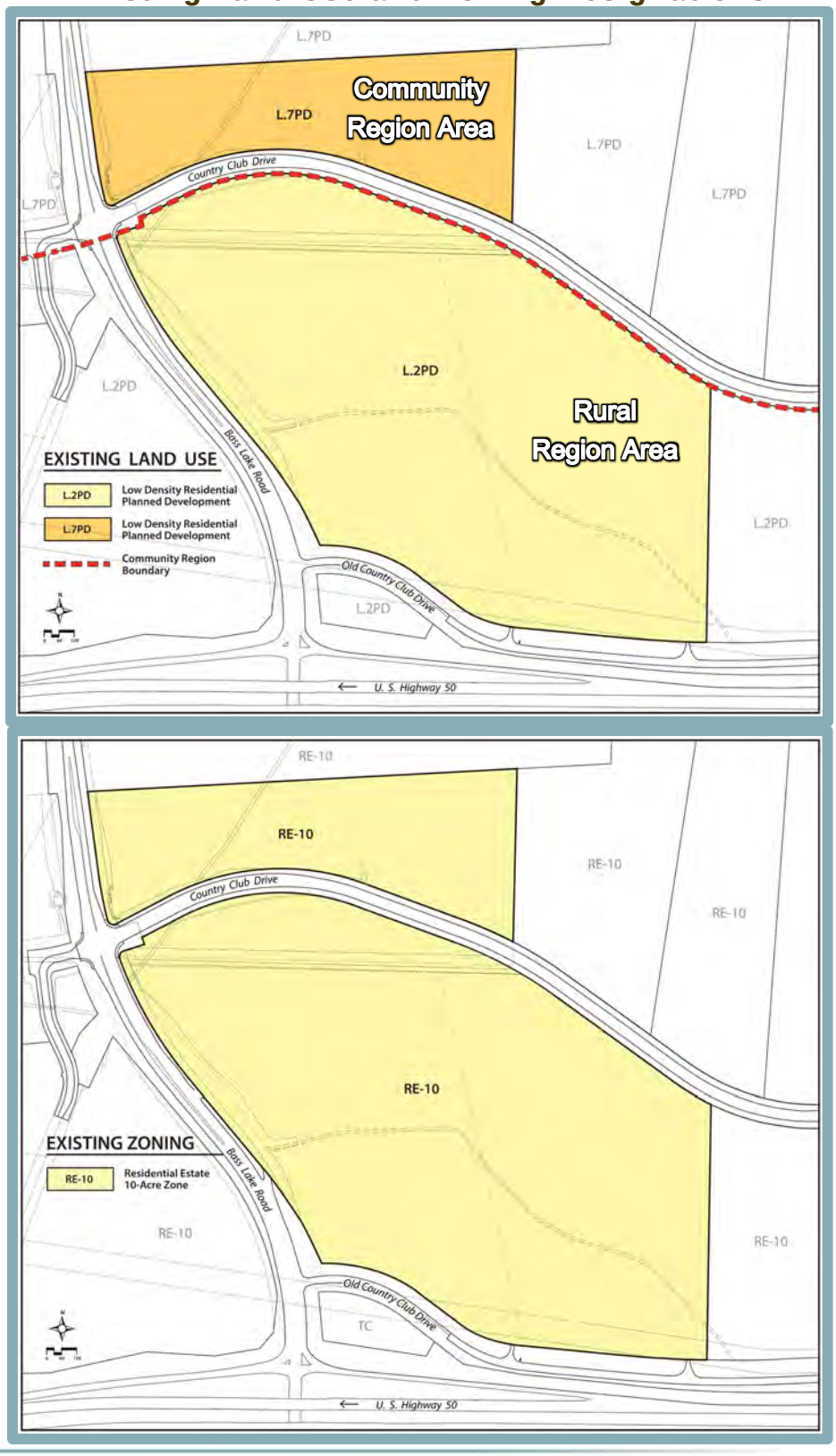
Table 4.8-1
Summary of Adjacent Land Use Designations and Zoning Districts

Relationship to Project Site	Land Use Designation	Zoning District
North of the Project Site	L.7-PD	RE-10
South of the Project Site	L.2-PD	Transportation Corridor (TC)
East of the Project Site	L.2-PD and L.7-PD	RE-10
West of the Project Site	L.2-PD and L.7-PD	RE-10

Land Use Designation Definitions

The following sections provide definitions of the land use designations noted above, as summarized from the El Dorado County General Plan and BLHSP.

Figure 4.8-1
Existing Land Use and Zoning Designations



Low Density Residential Planned Development (L.2-PD and L.7-PD)

The L.2-PD and L.7-PD land use designations are intended to allow for a maximum density of 0.2 and 0.7 du/ac, respectively, and to protect the foreground viewshed from US 50 by maintaining the rural character established by the existing zoning and density requirements in the region. Pursuant to the BLHSP, the -PD designations are consistent with the El Dorado County General Plan.

As discussed in the El Dorado County General Plan Land Use Element, the -PD land use designation shall allow residential, commercial, and industrial land uses consistent with the density specified by the underlying zoning district with which the -PD designation is combined. Primary emphasis is placed on furthering uses and/or designs that accomplish the following: provide a public or common benefit; cluster intensive land uses or lots to conform to the natural topography; minimize impacts on various natural and agricultural resources; avoid cultural resources where feasible; minimize public health concerns; minimize aesthetic concerns; and promote public health, safety, and welfare.

Zoning District Definitions

The following sections provide definitions of the RE-10 and TC zoning designations noted above, as summarized from the El Dorado County Zoning Ordinance (Title 130).

Residential Estate 10-Acre (RE-10)

The purpose of the RE-10 zoning district is to preserve the rural character of an area by providing for, and regulating the development of, low density and rural residential development at a rate of one dwelling unit per 10 acres. The 10-acre minimum lot size designation is applied to the RE zone based on compatibility with surrounding land uses, physical and infrastructural constraints, and General Plan use designations. It should be noted that agricultural structures and uses are considered compatible with RE zones.

Transportation Corridor (TC)

The TC zoning district is intended to protect and preserve established and identified future transportation corridors within the County, including corridors for motor vehicle, bicycle, hiking, equestrian, and rail transportation.

Population and Housing

Population growth assumptions, average household sizes, and vacancy rates for El Dorado County and the BLHSP area are discussed below.

Historical and Current Population

The BLHSP included population projections for the BLHSP area based on a maximum of 1,458 dwellings and a household size of 3.3 persons per dwelling unit, which was the countywide average at the time that the BLHSP was prepared in 1995. Pursuant to Section 3.1, the BLHSP anticipated that buildout of the BLHSP would result in a population increase of approximately 4,811 persons.

As shown in Table 4.8-2, the BLHSP area's observed population had an approximately 48 percent increase from 2010 to 2023, adding approximately 634 new residents and 256 households. Compared to El Dorado County as a whole, the population of the BLHSP area grew much more

quickly than the County in general, which experienced an approximately four percent increase in population during the same period.

Table 4.8-2
BLHSP Area Population and Household Growth

Year	Population	Households	Persons Per Households
2010	1,313	421	3.12
2023	1,947	677	2.88

Sources:
- ***ESRI Business Analyst. Housing Profile, Bass Lake Hills Specific Plan. May 2024.***
- ***El Dorado County. Bass Lake Hills Specific Plan. November 7, 1995.***

The observed population change within the BLHSP area, presented in Table 4.8-2, falls within the range of growth anticipated by the BLHSP. In addition, the actual persons per household size within the BLHSP area remains lower than the projections contained in the BLHSP. Therefore, while significant growth in the BLHSP area has occurred since adoption of the BLHSP, the area's population density is in line with the buildout assumptions included in the BLHSP.

Projected Population and Housing Growth

As discussed above, the population of the BLHSP area was anticipated to experience a maximum growth scenario of 4,811 residents. While Table 4.8-2 demonstrates that growth within the BLHSP did not reach the maximum growth scenario by 2010, the population within the BLHSP is anticipated to continue to grow with buildout of the BLHSP area, in particular, due to the growth associated with various planned, approved, or under construction subdivisions within the area. The Sacramento Area Council of Governments (SACOG) has anticipated growth within the six-county Sacramento region through the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS).[6]

The MTP/SCS identifies the BLHSP area as a Developing Community within the MTP/SCS study area. Developing Communities are defined as areas typically situated on vacant land at the edge of existing urban or suburban development as the next increment of urban expansion. Developing Communities are identified as special plan areas, specific plans, or master plans and may be residential-only, employment-only, or a mix of residential and employment uses. As of 2020, Developing Communities within El Dorado County included 1,950 housing units, and such communities are anticipated to grow to 5,540 units by 2035, 5,680 units by 2040, and 6,000 housing units at buildout.[7] Buildout of the BLHSP, including the project site, was included in the foregoing MTP/SCS growth estimates.

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 0.13 persons/household. Concurrently, the average household size within El

[6] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy*. Adopted November 18, 2019.
[7] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* [Appendix C, pg. 6]. Adopted November 18, 2019.

Dorado County decreased by 0.12 persons/household. Within the BLHSP area, the average household size decreased by 0.24 persons/household.

Table 4.8-3
Average Household Size (Persons Per Household)

Area	2010	2023
California	2.90	2.77
El Dorado County	2.55	2.43
BLHSP	3.12	2.88

Sources:

- ***ESRI Business Analyst. Housing Profile, Bass Lake Hills Specific Plan. May 2024.***
- ***California Department of Finance. Demographic Profile, Table 1, Census 2010. Released May 12, 2011.***
- ***California Department of Finance. Report E-5: Population and Housing Estimates for Cities Counties and the State, 2021-2024. Released May 1, 2024.***

Vacancy Rate

In 2010, El Dorado County experienced an overall vacancy rate of 20.3 percent, which was higher than the statewide average of 8.1 percent.[8] While the County's overall vacancy rate of 20.3 percent is relatively high, the countywide vacancy rate includes units held vacant for seasonal or recreational uses, which are generally not open for long-term residential occupancy. Excluding the units held for seasonal or recreational uses, unincorporated portions of the County experienced a vacancy rate of 9.14 percent for units classified as for rent, for sale, already rented or sold but not occupied, and all other vacant units used for long-term residential occupancy. El Dorado County's General Plan Housing Element notes that vacancy rates for owned and rented housing, excluding second homes or vacation homes, comprises approximately four percent of the units throughout unincorporated El Dorado County. Second homes and vacation homes that are only used occasionally comprise another 13 percent of housing units, presenting a further strain on housing availability.

The California Department of Finance reports that the overall vacancy rate within the County has decreased since 2010 to approximately 19.4 percent.[9] Although data regarding the proportion of units kept vacant for seasonal or recreational uses in 2023 is not currently available, the proportion of such vacant units within the overall vacancy rate for the County is anticipated to be comparable to the proportion discussed above for the year 2010. In addition, the 2017-2021 American Community Survey (ACS) estimated that five rental units located in the BLHSP area are vacant, representing a vacancy rate of 1.3 percent.[10]

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.

8 California Department of Finance. *Demographic Profile, Table 5a, Census 2010*. Released May 12, 2011.
9 California Department of Finance. *Report E-5: Population and Housing Estimates for Cities Counties and the State, January 1, 2021-2022, with 2020 Benchmark*. Released May 1, 2022.
10 ESRI Business Analyst. *ACS Housing Summary, Bass Lake Hills Specific Plan*. May 2024.

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 El Dorado County 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 El Dorado County 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 El Dorado County median income.
- 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 El Dorado County median income.

According to SACOG's RHNP, El Dorado County's RHNA number for combined low- and very-low-income levels is 2,309 dwelling units (see Table 4.8-4).[11]

Table 4.8-4
El Dorado County Regional Housing Needs Allocations (2021-2029)

Jurisdiction	Total Units[1]	Very Low Income		Low Income		Moderate		Above Moderate		Combined Low and Very Low	
		#	%	#	%	#	%	#	%	#	%
El Dorado County Unincorporated Areas[2]	4,994	1,350	27.0	813	16.3	840	16.8	1,991	40.0	2,163	43.3
El Dorado County Total	5,612	1,497	26.7	902	16.1	953	17.0	2,260	40.3	2,399	42.7

1 Total number of units based on proportion of growth in SACOG adopted 2020 MTP/SCS.
2 Unincorporated areas presented in this table do not include unincorporated areas within the Tahoe Basin.

Source: Sacramento Area Council of Governments, Regional Housing Needs Plan, 2020.

4.8.3 REGULATORY CONTEXT

Federal laws or regulations pertaining to land use and planning or population and housing are not applicable for this analysis. However, the existing State and local laws and regulations are listed below, as applicable.

11 Sacramento Area Council of Governments. *Regional Housing Needs Plan 2021-2029*. Adopted March 2020.

State Regulations

The following are applicable State regulations related to land use and planning, and population and housing.

Title 14 California Code of Regulations Section 15131

Title 14, California Code of Regulations (CCR) Section 15131, provides that economic or social information may be included in an EIR, but those economic or social effects shall not be considered significant effects on the environment. In an EIR, the lead agency is responsible for researching economic or social changes resulting from a project, which may eventually lead to physical changes in the environment. Such economic or social changes can be used to determine the significance of physical changes on the environment.

Regional Housing Needs Plan

California General Plan law requires each city and county to have land zoned to accommodate a fair share of the regional housing need. The share is known as RHNA and is based on a RHNP developed by councils of government. The State-mandated RHNA process (Government Code 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.

Local Regulations

The most relevant local regulations and standards related to land use, planning, population, and housing are the goals and policies set forth within the El Dorado County General Plan, including the County's 2021-2029 Housing Element, BLHSP, and LAFCo. Applicable goals and policies from the El Dorado County General Plan, including the County's 2021-2029 Housing Element, and BLHSP are listed in Appendix N to this EIR. The applicable list of goals and policies is primarily focused on those adopted for the purpose of avoiding or mitigating an environmental effect, in accordance with Appendix G, Section XI, of the CEQA Guidelines.

Board Policy J-6

On December 10, 2013, the El Dorado County Board of Supervisors (BOS) adopted Policy J-6, which requires a hearing as a first point of consideration before a formal development application can be made for a project that includes a General Plan Amendment, a Specific Plan Amendment, or a new Specific Plan that increases allowable residential densities by 50 dwelling units or more. A project's application is evaluated on three criteria:

1. Consistency with the goals and objectives of the General Plan, and/or County-adopted Strategic Plan, and/or Board of Supervisors adopted community vision and implementation plan;
2. Availability of or feasible provision of public infrastructure, facilities, and services to the proposed project without adverse impacts to existing or approved development; and
3. How well the proposed amendment provides additional public benefit to the community as compared to the existing land use designation, density/intensity range, plan, or site design.

Pursuant to BOS Policy J-6, the proposed project included a pre-application for conceptual review by the El Dorado County BOS on September 28, 2021.

Sacramento Area Council of Governments

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 MTIP identifies short-term projects (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.[12] 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.

4.8.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed 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 proposed 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 4.15, Effects Not Found to be Significant).

As noted above, issues related to whether the proposed project would result in any of the following impacts are discussed in Chapter 4.15, Effects Not Found to be Significant, of this EIR:

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

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

Method of Analysis

The following section describes the method of analysis used to evaluate potential impacts of the proposed project related to land use and planning, and population and housing.

Land Use and Planning

This chapter analyzes the compliance of the proposed project with adopted plans and policies adopted for the purpose of avoiding or mitigating an environmental effect. Environmental impacts resulting from the proposed project are discussed in the respective environmental categories. This 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 rests with the El Dorado County BOS.

Consistency with the Applicable Land Use Regulations

The proposed project is examined for consistency with the El Dorado County General Plan and the BLHSP based on the relevant policies adopted for the purpose of avoiding or mitigating an environmental effect contained within both documents. The project's consistency with the El Dorado County Zoning Ordinance and LAFCo policies is also discussed.

Population and Housing

The level of significance of the impacts related to population and housing is determined by evaluating whether the proposed project, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure), would induce substantial unplanned population growth in the project area.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed 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*.

Given that both the Project Development Area and Program Study Area would result in the development of similar land uses on contiguous parcels, the following discussion includes an analysis of both project components' potential to physically divide an established community. In addition, the analysis includes an evaluation of the proposed off-site components.

Project Development Area and Project Buildout

A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community or isolate an existing land use. The Project Development Area would involve the construction of two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages that may be rented on a daily or extended stay basis. Project Buildout may include future development of additional hotels, medical facilities, senior housing, townhomes and cottages, and other uses allowed by the proposed zoning districts within the Program Study Area. Development of the proposed project would also require various associated on- and off-site

improvements, including, but not limited to trails, landscaping, and wet and dry utility installation.

Surrounding land uses in the project site vicinity include undeveloped land and rural residences within the BLHSP to the north; rural residences and the EDHFD Station 86 to the west/northwest across Bass Lake Road; undeveloped land and rural residences to the south, across US 50; and undeveloped land to the east, with the Holy Trinity Parish and School located farther east. It should be noted that in recent years, multiple Tentative Subdivision Maps have been approved for properties within the BLHSP, north of the project site, which are undergoing development.

The proposed project would not obstruct any existing or proposed transportation route that provides connectivity in the BLHSP area. Development of the proposed project would not require any demolition of on-site structures, and would essentially serve as an extension of the existing community in the project area. Furthermore, within the BLHSP, development of the project site has been previously anticipated by the County. The proposed uses would increase the intensity of development as compared to what was originally planned for the site; however, the BLHSP's planned development of the site is indicative that the site has been envisioned as an extension of the existing community. Finally, although the proposed project would include installation of off-site water and sewer lines, the utility lines would be sized to accommodate the proposed on-site development, and would not change the land use conditions in the surrounding community or isolate an existing land use. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.8-2 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Based on the analysis below, the impact is *less than significant.*

The following discussion includes an analysis of the proposed project's potential to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect for both the Project Development Area and the Project Buildout, as well as the proposed off-site improvements.

Project Development Area and Project Buildout

The General Plan Guidelines published by the State Office of Planning and Research define consistency as follows, "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 in 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 El Dorado County General Plan policies or other County plans and policies is ultimately the decision of the El Dorado County BOS. Furthermore, although CEQA analysis may identify some areas of general consistency with County policies, the County has the ability to impose additional requirements or conditions of approval on a project, at the time of its approval, 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 provided in further detail below.

The BLHSP and the County's Zoning Ordinance carry out the policies of the El Dorado County General Plan by classifying and regulating the uses of land and structures within the unincorporated County, consistent with the General Plan. As noted previously, the project site is currently designated L.2-PD and L.7-PD, and is currently zoned RE-10. The proposed project would include a Specific Plan Amendment to the BLHSP to establish three new land use designations for the BLHSP area: Commercial (C), Multi-Family Residential (MFR), and Open Space (OS) (see Figure 4.8-2).

Pursuant to the County's General Plan, the primary intent of the C designation is to provide for commercial retail, office, and service uses. The C designation also allows for mixed-use development including commercial and residential uses within Community Regions and Rural Centers. Mixed-use development is allowed within an area zoned for a mix of uses by Policy 2.1.1.3 and 2.1.2.5.

The MFR designation identifies areas suitable for high-density, single-family, and multi-family developments, such as apartments, single-family attached dwelling units (i.e., air-space condominiums, townhouses, and multiplexes), and small-lot, single-family detached dwellings. The MFR designation also allows for mobile home parks and manufactured home parks, as well as mixed-use development that combines commercial and residential uses within Community Regions and Rural Centers. The General Plan states: "Except as provided in Policy 2.2.2.3, this designation is considered appropriate only within Community Regions and Rural Centers. (Resolution 199-2018, September 25, 2018)." As previously discussed, the General Plan includes the portion of the project site, north of Country Club Drive, in the Community Region, and the area south of Country Club Drive in the Rural Region. The project includes a request to amend the General Plan to modify the Community Region boundary to include the whole project site in the Community Region. Such an amendment request is consistent with Policy 2.1.1.6, which states that "The boundaries of existing Community Regions may be modified through the General Plan Amendment process."

The OS designation is used to designate public lands where development is unnecessary, aside from specific needs for government-related uses. The OS land use includes State parks, ecological preserves, and public lands acquired specifically for open space uses, and can also be used on private lands to maintain natural features within a development requiring approval of a General Plan Amendment. Pursuant to the County General Plan, the OS designation is considered appropriate within Community Regions, Rural Centers, and Rural Regions.

In addition to changing the land use designations of the project site, as discussed above, the BLHSP Amendment would include revisions to the text of the Specific Plan to accommodate the proposed project. For example, Table 3-1, Land Use Summary Table, of the BLHSP would be amended to reflect the new land uses of the project site, and Figure 4-1, Circulation Plan, would be updated to include the roadway improvements associated with the proposed project.

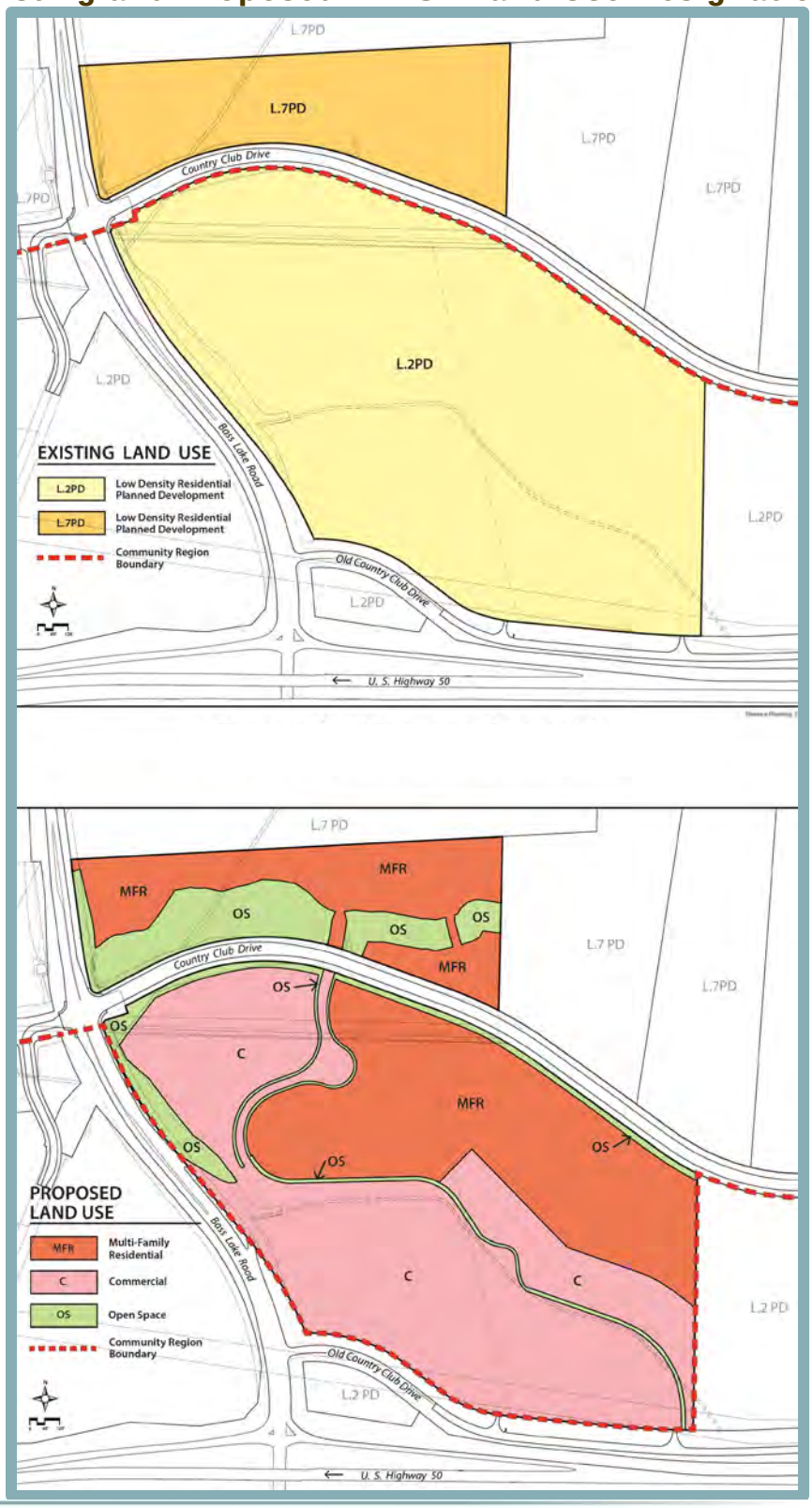
The project would also require approval of a Rezone to change the site's zoning district from RE-10 to Community Commercial (CC), Multi-Unit Residential (RM), and OS. As required by the BLHSP, the Planned Development Combining District (-PD) suffix would be added to all of the zoning district designations. The remaining entitlements required for the project include approval of a Planned Development, Tentative Subdivision Map, and annexation of the project site into the EID service area, the latter of which requires LAFCo approval. Consistency with the relevant LAFCo policies is included in Appendix N of this EIR. Approval of the aforementioned entitlements would allow for the development of the proposed project.

As shown in Appendix N of this EIR, the project would be generally consistent with the applicable policies outlined in the El Dorado County General Plan, the County's 2021-2029 Housing Element, the BLHSP, and El Dorado LAFCo. Furthermore, the project is generally consistent with and implements all other applicable plans and policies. The conclusions expressed in Appendix N reflect the best judgment of County staff and the County's consultant. As noted above, the ultimate question of the meaning of particular General Plan policies, and thus the proposed project's consistency with the policies, lies with the BOS. It should be noted, however, that the language found in general plans is sometimes susceptible to varying interpretations, and reasonable minds may differ as to the meaning of specific policies and how to apply the policies to proposed projects. 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 County staff and EIR consultants, applicants, or members of the public; and (ii) the decision-making body's interpretations of such policies shall prevail in court (if challenged) if the interpretations are "reasonable," even though other reasonable interpretations are also possible.[13]

Courts have also 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.[14] 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). Agencies should do the same.

[13] See *No Oil, Inc. v. City of Los Angeles* (1987) 196 Cal.App.3d 223, 245-246, 249.
[14] *Sequoyah Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 719

Figure 4.8-2
Existing and Proposed BLHSP Land Use Designations



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 [county] 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 pg. 719, citing *Greenebaum*, *supra*, 153 Cal.App.3d at pg. 406). Nevertheless, proposed projects are required to be consistent with all General Plan policies that are "fundamental, mandatory, and clear."[15,16]

Should the BOS choose to approve the proposed project, the Board may rely on the analysis in Appendix N as support for the conclusion that the project, which includes the proposed General Plan and BLHSP amendments, is consistent with the General Plan and BLHSP as amended. Certification of the Final EIR will be indicative of agreement with the conclusions in the appendix.

While an inconsistency may indicate a significant physical impact, the inconsistency is not itself an impact. The physical impacts of the project are analyzed in Chapters 4.1 through 4.15 of this EIR.

Further, the aforementioned entitlements for the proposed project are discretionary actions subject to approval by the El Dorado County BOS. Should the El Dorado County BOS approve the requested entitlements, the project would be rendered consistent with the County's BLHSP and the County's Zoning Ordinance.

From a policy perspective, Appendix N demonstrates that the proposed project would be generally consistent with the applicable policies in the El Dorado County General Plan, 2021-2029 Housing Element, the BLHSP, and the El Dorado LAFCo policy document adopted for the purpose of avoiding or mitigating an environmental effect.

Based on the above, the proposed 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 Appendix N), and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

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15 *Families Unafraid to Uphold Rural El Dorado County v. El Dorado County Bd. of Supervisors* (1998) 62 Cal.App.4th 1332, 1341-1342.

16 *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").

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.

Project Development Area

The following sections describe potential effects related to direct and indirect population growth associated with the Project Development Area.

Direct Population Growth

The proposed project would increase the available housing within the BLHSP area, which would increase the population in the area. Based on a project-specific population calculation prepared by EPS, which used a 2.45 persons per household rate, the Project Development Area would result in a maximum population increase of 274 residents (112 residences x 2.45 persons per household).[17] It should be noted that the more general 2023 persons per household rate identified for the BLHSP and summarized in Table 4.8-2 would result in a total population increase of 323 residents for the Project Development Area (112 residences x 2.88 persons per household). Use of the persons per household rates identified in the BLHSP would provide a conservative analysis; however, the BLHSP rates would only provide an additional 49 residents, or an approximately 18 percent increase, which is not a substantial increase. For the purposes of this analysis, the project-specific population estimates are used as the most likely effect of Project Development Area construction.

Residential development is allowed within the 30.3-acre portion of the project site that comprises the Project Development Area, which consists of 17.38 acres currently designated L.7-PD and 12.92 acres designated L.2-PD. The maximum densities for dwelling units in the existing designations are 0.7 and 0.2 dwelling unit per acre, respectively. Under the current BLHSP land use designations for the Project Development Area, up to 14 dwelling units could be built, resulting in a population increase of approximately 35 residents (14 units x 2.45 persons per household). The existing land use designations would allow for a theoretical maximum of approximately 14 residential units and 35 residents on the project site. Thus, development of the proposed project would result in an increase of approximately 98 units, or 239 residents beyond what is currently anticipated for the site.

[17] EPS. *Draft Town & Country Village Fiscal Impact Analysis* [Table A-2]. November 8, 2023.

Development of the Project Development Area and the associated addition of 274 residents would increase the total current population of the BLHSP area from 1,947 to 2,221, or a 14.1 percent increase. However, as discussed in the Existing Environmental Setting section of this chapter, the BLHSP projected that the area's population could grow by as many as 4,811 residents by buildout. Therefore, the increase in population that could be generated by the Project Development Area would still be within the range of growth projections assumed in the BLHSP.

In addition to the growth anticipated in the BLHSP, SACOG also anticipates growth within Developing Communities, including the BLHSP area. As discussed within the Existing Environmental Setting section of this chapter, Developing Communities throughout El Dorado County are anticipated to grow by 3,590 units between 2020 and 2035.[18] The 112 residential dwelling units included in the Project Development Area would be within SACOG's growth estimates for Developing Communities within El Dorado County by 2035. Additionally, growth in the BLHSP area and other unincorporated areas of El Dorado County was anticipated by the El Dorado County Housing Element. As shown in Table 4.8-4, the County's Housing Element includes allocation for market rate and lower-income units within the County. The proposed residential units would be within the Housing Elements' allocation of projected units for the County.

Therefore, the population growth generated by the proposed project would be within the buildout and growth projections for the BLHSP area, as well as unincorporated areas within El Dorado County.

Indirect Population Growth

The proposed project would result in an increase of the permanent population on the project site by an estimated 274 residents. The new residential population would likely patronize local businesses and services in the area, fostering economic growth. While development of the proposed project would result in increased employment opportunities in the construction field, employment patterns of construction workers are 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 proposed project.

In addition, the Project Development Area includes 181,000 square feet (sf) of commercial development, including two hotels and an event center/museum, the development of which could result in an estimated 145 new employees.[19] However, the proposed project includes development of 56 residential dwelling units reserved for on-site employee housing. In addition, the employment opportunities would likely be filled from the local employee base. As a result, the on-site employment opportunities would not be anticipated to result in a substantial increase in the permanent population or demand for housing in the project vicinity.

The residential population generated by the Project Development Area would also result in an increased demand for public services. However, as discussed in Chapter

[18] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* [Appendix C, pg. 6]. Adopted November 18, 2019.
[19] EPS. *Draft Town & Country Village Fiscal Impact Analysis* [Table A-2]. November 8, 2023.

4.13, Utilities and Service Systems, the increase in population associated with development of the proposed project and associated demand for utility services would not require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

The BLHSP included public services and facilities standards to ensure that adequate utilities and services are provided for development within the BLHSP area. In addition, the project would be annexed into the EID service area. Underground infrastructure improvements for the proposed project would include new water and sanitary sewer lines, as well as storm drain collection systems. In addition, the proposed project includes construction of off-site water and sewer mains. However, all on- and off-site utility infrastructure would be sized to accommodate only the Project Development Area. Thus, the proposed off-site water and sewer mains would not induce indirect population growth within the BLHSP area.

Project Buildout

The following sections describe potential effects related to direct and indirect population growth associated with Project Buildout.

Direct Population Growth

The proposed project would increase the available housing within the BLHSP area. Based on a project-specific population calculation prepared by EPS, which used a 2.45 persons per household rate for multi-family housing and a 1.20 persons per household rate for senior housing, Project Buildout would increase the population in the area by a maximum population increase of 1,807 residents.[20] It should be noted that the more general 2023 persons per household rate identified for the BLHSP and summarized in Table 4.8-2 would result in a total population increase of 2,345 residents for Project Buildout (814 residences x 2.88 persons per household). Use of the persons per household rates identified in the BLHSP would provide a conservative analysis; however, the BLHSP rates would only provide an additional 538 residents, or an approximately 30 percent increase. For the purposes of this analysis, the project-specific population estimates are used as the most likely effect of Project Buildout.

Residential development is allowed within the project site, which would include the Project Development Area and the 30.2-acre Program Study Area, which is currently designated L.2-PD. As such, the maximum density for dwelling units in the existing designations is 0.2 dwelling unit per acre, which would allow for six dwelling units and a population increase of approximately 15 residents (six units x 2.45 persons per household). The existing land use designations of the full project site would allow for a theoretical maximum of approximately 21 residential units and 52 residents on the project site. Thus, development of Project Buildout could result in an increase of approximately 793 units, or 1,943 residents beyond what is currently anticipated for the site.

[20] EPS. *Draft Town & Country Village Fiscal Impact Analysis* [Table A-2]. November 8, 2023. Calculations as follows: (2.45 persons per multi-family household x 552 units = 1,352) + (1.20 persons per senior household x 150 units = 180 residents) + (274 residents) = 1,807 residents

Development of the proposed project and the associated addition of an estimated 1,807 residents would increase the total current population of the BLHSP area from 1,947 to 3,754, or a 92.8 percent increase. However, as discussed above, the BLHSP projected that the area's population could grow by as many as 4,811 residents by buildout. Therefore, the increase in population that could be generated by the proposed project would still be within the range of growth projections assumed in the BLHSP.

In addition to the growth anticipated in the BLHSP, SACOG also anticipated growth within Developing Communities throughout El Dorado County, which are anticipated to grow by 3,590 units between 2020 and 2035.[21] The 814 residential dwelling units included in the proposed project would be within SACOG's growth estimates by horizon year 2035. Additionally, growth in the BLHSP area and other unincorporated areas of the County was anticipated by the County Housing Element. As shown in Table 4.8-4, the County allocated for market rate and lower-income units. Therefore, the proposed residential units would be within the Housing Elements' allocation of projected units for the County.

Therefore, the population growth generated by the proposed project would be within the buildout and growth projections for the BLHSP area, as well as unincorporated areas within El Dorado County.

Indirect Population Growth

The proposed project would result in an increase of the permanent population on the project site by an estimated 1,807 residents.

In addition, Project Buildout would include 90,000 sf of commercial mixed-use development in addition to the 181,000 sf of commercial in the Project Development Area, which would result in an estimated 180 new employees, for a project total of 325 employees. However, as previously discussed, the proposed project includes 56 residential dwelling units reserved for on-site employee housing and employment opportunities would likely be filled from the local employee base. As a result, Project Buildout would create new permanent jobs, but on-site employment opportunities would not be anticipated to result in a substantial increase in the permanent population or demand for housing in the project vicinity.

Similar to the Project Development Area discussed above, the residential population generated by Project Buildout would also result in an increased demand for public services, which could require the construction of new or expanded utilities infrastructure which could cause significant environmental effects. However, the utilities infrastructure required to serve the increase in population generated by the proposed project would be sized only for project buildout. The potential environmental effects of such improvements are evaluated throughout this EIR.

The BLHSP included public services and facilities standards to ensure that adequate utilities and services are provided. In addition, the project would be annexed into the EID service area. The proposed underground infrastructure would include new water

[21] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* [Appendix C, pg. 6]. Adopted November 18, 2019.

and sanitary sewer lines, storm drain collection systems, and the off-site water and sewer mains discussed above. However, similarly to the Project Development Area discussed above, all on- and off-site utility infrastructure would be sized to accommodate only the proposed project. Thus, Project Buildout would not induce indirect population growth within the BLHSP area.

Conclusion

Considering the above, the proposed project would include development that would result in direct on-site population growth. Population growth resulting from the proposed project would be within the BLHSP, SACOG, and El Dorado County growth estimates for the project area. Furthermore, the infrastructure included in the proposed project would be sized to accommodate the development of only the proposed project. As a result, the proposed project would not be considered to induce substantial unplanned population growth, and a ***less-than-significant*** impact would occur. It should be noted that potential impacts related to growth inducement are discussed further within Chapter 5, 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 5, Statutorily Required Sections, of this EIR.

4.8-4 Cause a significant cumulative 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 cumulative impact is *less than significant.*

A cumulative analysis of land use is not included because land use plans or policies and zoning generally do not combine to result in cumulative impacts. The determination of significance for impacts related to such issues is whether the project would 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. Such a conflict is site-specific, and, thus, is only addressed on a project-by-project basis. As shown in Appendix N of this EIR, the proposed project would be generally consistent with relevant policies in the El Dorado County General Plan, including the 2021-2029 Housing Element, the BLHSP, and LAFCo.

Therefore, the proposed project would not cause a significant cumulative 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, and the cumulative impact would be ***less than significant***.

Mitigation Measure(s)
None required.

4.8-5 Cumulative unplanned population growth. Based on the analysis below, the cumulative impact is *less than significant.*

Buildout of the BLHSP was anticipated to result in population growth within the plan area through the development of urban and rural developments throughout the BLHSP, including the project site. As described further in Chapter 5, Statutorily Required Sections, of this EIR, several new tentative subdivision maps have been approved or are being built within the BLHSP area. In addition, other reasonably foreseeable projects within the region are being processed by the County, including the Lime Rock Valley Specific Plan, Village of Marble Valley Specific Plan, EDH 52 Project, Bass Lake Regional Park Project, Generations at Green Valley project, and Cameron Meadows Project. The MTP/SCS, prepared by the SACOG, provides regional growth projections for the six-county Sacramento region, including the BLHSP.

The MTP/SCS identifies the BLHSP as a Developing Community. As discussed within Impact 4.8-4 above, the population growth related to implementation of the proposed project has been anticipated for the region by the MTP/SCS.[22] Thus, the BLHSP anticipated cumulative growth of the plan area, and increased urbanization within the BLHSP area has been anticipated by regional planning efforts, such as the MTP/SCS. The Village of Marble Valley Specific Plan (VMVSP) is not included within the BLHSP area nor within the MTP/SCS. However, pursuant to the VMVSP EIR, the VMVSP project is located within a Developing Communities region of the County. While the VMVSP is not included within the MTP/SCS, development of the VMVSP, which includes residential land uses, would be generally consistent with the MTP/SCS's goal of providing a mix of new housing in Developing Community regions.[23] Thus, because development of the project site and buildout of the BLHSP area and surrounding areas has been anticipated in regional development forecasts, buildout of the proposed project in combination with other approved developments within the area would not result in a cumulatively considerable incremental contribution to population growth within the project area or 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

[22] Sacramento Area Council of Governments. *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* [Appendix C, pg. 6]. Adopted November 18, 2019.

[23] El Dorado County. *Village of Marble Valley Specific Plan Draft Environmental Impact Report* [pg. 3.9-10]. Available at: https://www.eldoradocounty.ca.gov/Land-Use/Planning-Services/Environmental-Impact-Report-EIR-Documents/Marble-Valley-Specific-Plan-Notice-of-Availability-of-the-DEIR. May 2024.

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

Considering the above, implementation of the proposed project, in combination with future development occurring under buildout of the BLHSP, would result in a ***less-than-significant*** cumulative impact related to substantial unplanned population growth.

Mitigation Measure(s)

None required.

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 proposed project. The method by which the potential impacts are analyzed is 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 & Vibration Assessment (Noise Assessment) prepared for the proposed project by Bollard Acoustical Consultants, Inc. (BAC) (see Appendix O of this EIR).[1] In addition, information was drawn from the El Dorado County General Plan,[2] and the El Dorado County General Plan EIR.[3] Further information was sourced from the Bass Lake Hills Specific Plan (BLHSP) and the Bass Lake Road Study Area Program EIR (Bass Lake EIR).[4,5]

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 Noise

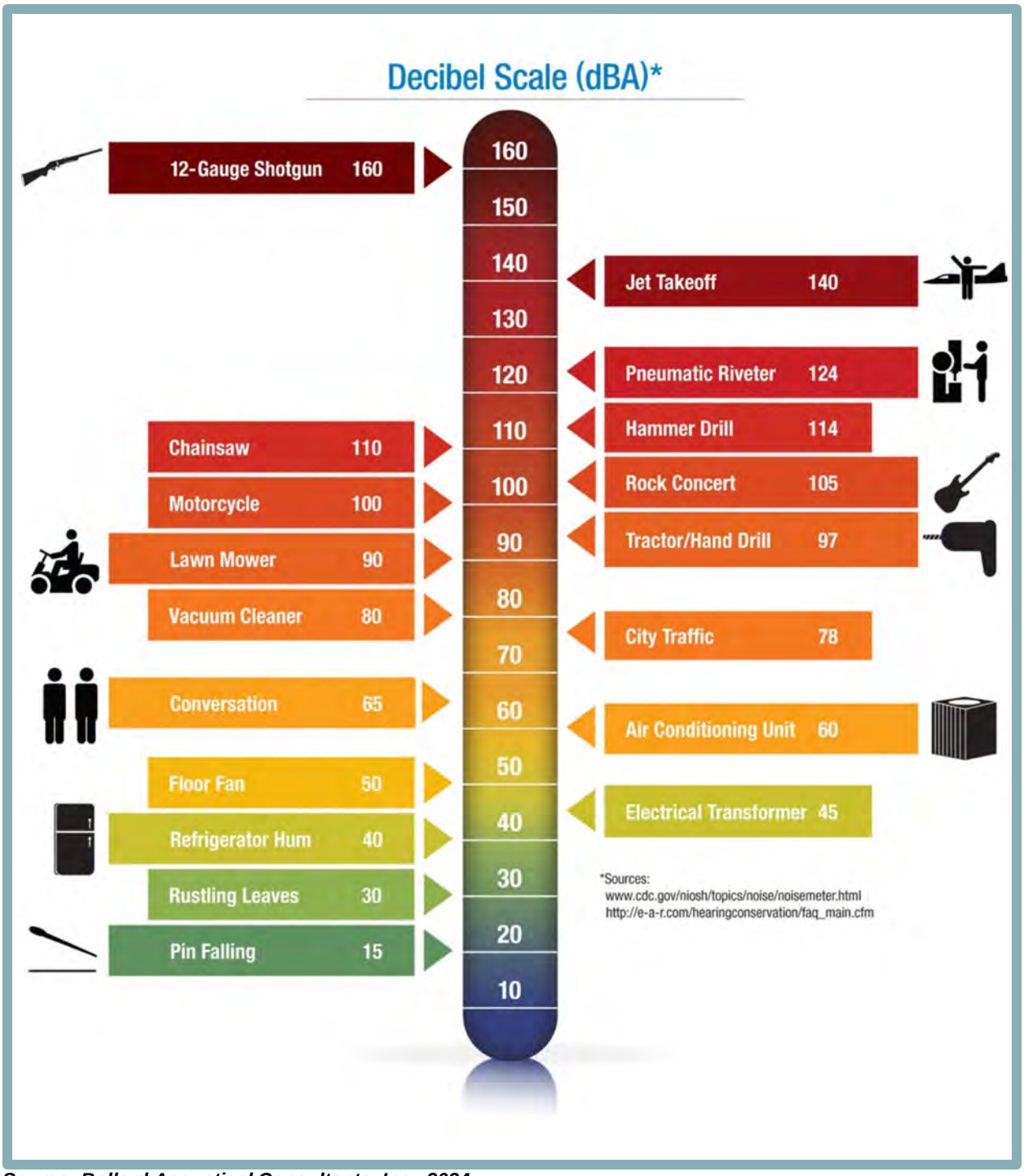
Decibels (dB) are logarithmic units that compare the wide range of sound intensities to which the human ear is sensitive. The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the typical range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by filtering the frequency response of a sound level meter by means of the standardized A-weighting network. A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and the use of A-weighted sound level, expressed as dBA, has become the standard tool of environmental noise assessment. Noise levels associated with common noise sources are provided in Figure 4.9-1.

Several time-averaged scales represent noise environments and consequences of human activities. Community Noise Equivalent Level (CNEL), which can be used to compare the noise level of neighborhoods, is the weighted average noise level over time, presented in dB. Community noise is also commonly described in terms of the ambient noise level, which is defined as the overall noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}).

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1 Bollard Acoustical Consultants, Inc. *Environmental Noise & Vibration Assessment, Town & Country Village, El Dorado County, California*. April 15, 2024.
2 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.
3 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report.* May 2003.
4 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
5 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

Figure 4.9-1
Noise Levels Associated with Common Noise Sources



Source: Bollard Acoustical Consultants, Inc., 2024.

The L_{eq} is the foundation of the day-night average noise descriptor (L_{dn} or DNL), and represents a correlation with community response to noise. DNL and CNEL are based on the average noise level over a 24-hour day, with a +5-decibel weighting applied to noise occurring during evening hours (CNEL only), and a 10-decibel weighting applied to noise occurring during nighttime hours (both DNL and CNEL). The 10 dB nighttime penalty is applied to account for the assumption that people are more sensitive to nighttime noise exposures as compared to daytime noise exposures. Finally, the highest root-mean-square (RMS) sound level measured over a given period of time is expressed as L_{max}. Because DNL and CNEL represent a 24- hour average, short-term variations in the noise environment tend to be disguised.

Stationary sources of noise, including construction equipment, attenuate at a rate of 6.0 to 7.5 dB per doubling of distance from the source depending on ground absorption. Soft sites attenuate at 7.5 dB per doubling of distance, as such sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. Hard sites have reflective surfaces (e.g., parking lots or smooth bodies of water) and, therefore, have less attenuation (6.0 dB per doubling of distance). 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.

Existing Sensitive Receptors

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise, because intrusive noise can be disruptive to such activities. Sensitivity to ambient noise levels is also related to the amount of noise exposure (in terms of both exposure time and shielding from noise sources). Noise sensitive land uses typically include residences, schools, child care centers, hospitals, long-term health care facilities, convalescent centers, retirement homes, and recreation areas.

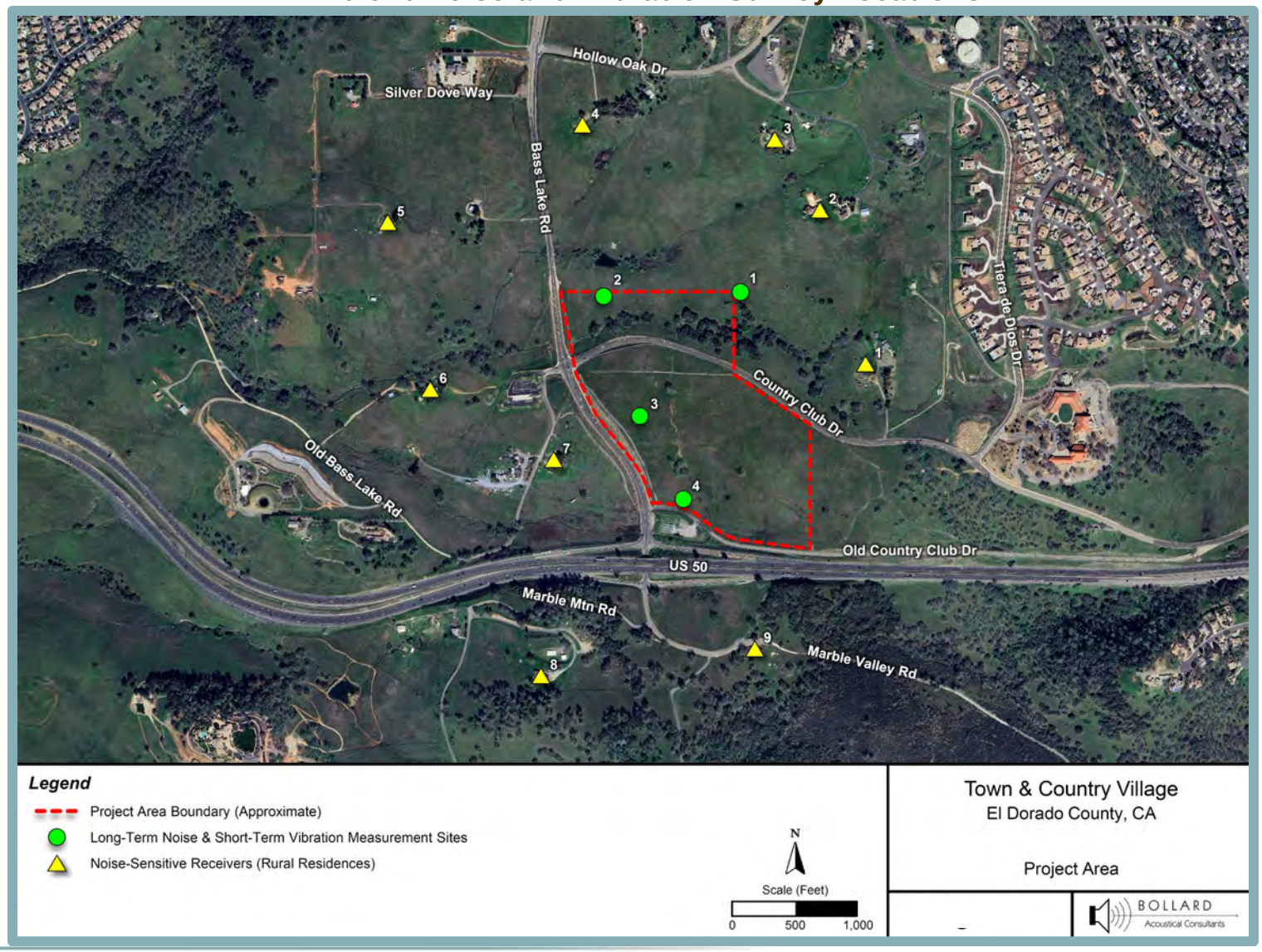
The existing noise-sensitive land uses in the project vicinity consist of rural residential uses generally surrounding the project site, identified as Noise-Sensitive Receivers 1 through 9, as shown on Figure 4.9-2. More specifically, the nearest existing noise-sensitive uses to the Project Development Area are residential Receivers 2 and 7. The closest existing noise-sensitive uses to the Program Study Area are residential Receivers 1 and 7. Existing agricultural uses are also located within the project vicinity; however, such uses are typically not considered to be noise-sensitive, but, rather, noise-generating.

Existing Ambient Noise Environment

The existing ambient noise environment at the project site is defined primarily by noise from traffic on U.S. Route 50 (US 50) and Bass Lake Road. To quantify existing ambient noise levels within the project area, BAC conducted long-term (72-hour) ambient noise level measurements at four locations from July 19 to July 21, 2023. The equipment and approach used to evaluate existing noise levels are discussed in the Method of Analysis section of this chapter. The long-term noise survey locations are shown on Figure 4.9-2.

Noise level measurements obtained at Site 1, located near the northeast boundary of the project area, are representative of the existing ambient noise level environment at residential Receivers 1-3. Long-term noise Site 2, located within the northwest portion of the project area, is representative of the existing ambient noise level environment at Receivers 4 and 5.

Figure 4.9-2
Ambient Noise and Vibration Survey Locations



Noise level measurements obtained at Site 3, located within the western portion of the project area, are representative of the existing ambient noise level environment at residential Receivers 6 and 7. Site 4, located within the southwest portion of the project area, was selected to be representative of the existing ambient noise level environment at Receivers 8 and 9.

The results of the long-term ambient noise survey are summarized in Table 4.9-1. As shown in the table, CNEL, L_{eq}, and L_{max} noise levels were generally consistent at each individual survey site throughout the monitoring period, with the values at each site fluctuating over a small range during the three days.

Table 4.9-1
Long-Term Ambient Noise Survey Results[1]

Survey Location[2]	Date	CNEL (dB)	Average Measured Hourly Noise Levels (dBA)[3]					
			Daytime		Evening		Nighttime	
			L_{eq}	L_{max}	L_{eq}	L_{max}	L_{eq}	L_{max}
Site 1: Northeast project area	7/19/23	49	46	59	46	64	41	53
	7/20/23	50	46	60	45	59	42	52
	7/21/23	50	46	60	45	58	43	54
Site 2: Northwest project area	7/19/23	55	51	66	53	75	47	62
	7/20/23	55	51	68	51	68	48	63
	7/21/23	56	52	70	50	65	48	61
Site 3: West project area	7/19/23	58	54	64	52	70	51	63
	7/20/23	59	54	68	52	66	51	63
	7/21/23	59	55	67	52	66	52	64
Site 4: Southwest project area	7/19/23	64	61	74	58	76	56	73
	7/20/23	65	62	78	59	77	57	71
	7/21/23	64	62	76	58	75	57	72

[1] Detailed summaries of the noise monitoring results are provided in Appendices D and E of the Noise Assessment.
[2] Long-term ambient noise monitoring locations are identified on Figure 4.9-2.
[3] Daytime hours: 7:00 AM to 10:00 PM | Evening hours: 7:00 PM to 10:00 PM | Nighttime hours: 10:00 PM to 7:00 AM.

Source: Bollard Acoustical Consultants, Inc., 2024.

Existing Traffic Noise Levels

The Federal Highway Administration (FHWA) Traffic Noise Model (FHWA-RD-77-108) was used to quantify existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The approach used to evaluate existing traffic noise levels is discussed in the Method of Analysis section of this chapter. The traffic noise level at the nearest existing sensitive receptor and distances from the centerlines of the 60 dB DNL, 65 dB DNL, and 70 dB DNL contours are summarized in Table 4.9-2. The actual distances to noise level contours may vary from the distances predicted by the FHWA Model. Factors such as roadway curvature, roadway grade, shielding by way of local topography or structures, elevated roadways, or elevated receivers may affect actual sound propagation.

Table 4.9-2
Existing Traffic Noise Modeling Results

#	Roadway	Segment	DNL at Nearest Sensitive Receptor	Distance to Contour (Feet)		
				70 dB DNL	65 dB DNL	60 dB DNL
1	Alexandrite Drive	North of Green Valley Road	32	0	1	2
2	Bass Lake Road	Green Valley Road to Woodleigh Lane	63	17	36	78
3	Bass Lake Road	Woodleigh Lane to Magnolia Hills Drive	61	19	41	88
4	Bass Lake Road	Magnolia Hills Drive to Silver Springs Parkway	59	19	42	89
5	Bass Lake Road	Bass Lake Road to Madera Way	59	15	31	68
6	Bass Lake Road	Madera Way to Bridlewood Drive	59	16	34	74
7	Bass Lake Road	Bridlewood Drive to Whistling Way	58	17	36	77
8	Bass Lake Road	Whistling Way to Serrano Parkway	58	17	36	77
9	Bass Lake Road	Serrano Parkway to Brannan Way	59	19	42	90
10	Bass Lake Road	Brannan Way to Hawk View Road	60	19	42	90
11	Bass Lake Road	Hawk View Road to Sienna Ridge Road	53	20	42	91
12	Bass Lake Road	Sienna Ridge Road to Hollow Oak Drive	56	42	91	196
13	Bass Lake Road	Hollow Oak Drive to Silver Dove Way	52	43	92	198
14	Bass Lake Road	Silver Dove Way to Country Club Drive	55	43	92	198
15	Bass Lake Road	Country Club Drive to Project Driveway 1	55	45	98	210
16	Bass Lake Road	Project Driveway 1 to Old Country Club Drive	55	45	98	210
17	Bass Lake Road	Old Country Club Drive to US 50 Westbound Ramp	51	45	98	210
18	Bass Lake Road	US 50 Westbound Ramp to US 50 Eastbound Ramp	47	28	61	132
19	Brannan Way	West of Bass Lake Road	47	2	4	8
20	Bridlewood Drive	East of Bass Lake Road	54	4	9	20
21	Cambridge Road	South of Green Valley Road	61	12	25	55
22	Cambridge Road	North of Merrychase Drive	63	24	52	111
23	Cambridge Road	US 50 Eastbound Ramp to US 50 Westbound Ramp	55	24	52	112
24	Church Place	North of Country Club Drive	31	0	1	2
25	Country Club Drive	Bass Lake Road to Project Driveway 2	42	12	25	54
26	Country Club Drive	Project Driveway 2 to Project Driveway 3	41	12	25	54
27	Country Club Drive	Project Driveway 3 to Church Place	45	12	25	54

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Table 4.9-2
Existing Traffic Noise Modeling Results

#	Roadway	Segment	DNL at Nearest Sensitive Receptor	Distance to Contour (Feet)		
				70 dB DNL	65 dB DNL	60 dB DNL
28	Country Club Drive	Church Place to Morrison Road	45	12	25	54
29	Country Club Drive	Morrison Road to El Norte Road	57	11	23	50
30	Country Club Drive	El Norte Road to Merrychase Drive	59	9	19	41
31	Country Club Drive	East of Merrychase Drive	58	8	17	36
32	El Norte Road	North of Country Club Drive	44	2	4	8
33	Flying C Road	South of US 50 Eastbound Ramp	44	4	9	19
34	Green Valley Road	West of Silver Springs Parkway	60	56	121	261
35	Green Valley Road	Silver Springs Parkway to Bass Lake Road	59	18	39	85
36	Green Valley Road	Bass Lake Road to Cambridge Road	61	19	42	90
37	Green Valley Road	East of Cambridge Road	60	17	37	81
38	Hawk View Road	West of Bass Lake Road	46	1	3	6
39	Hawk View Road	East of Bass Lake Road	16	0	0	0
40	Hollow Oak Drive	East of Bass Lake Road	46	6	13	29
41	Madera Way	East of Bass Lake Road	55	5	11	24
42	Magnolia Hills Drive	South of Bass Lake Road	54	4	9	19
43	Marble Valley Road	South of US 50 Eastbound Ramp	45	3	7	15
44	Merrychase Drive	Country Club Drive to Cambridge Road	59	12	25	55
45	Morrison Road	North of Country Club Drive	53	6	13	28
46	Old Bass Lake Road	West of Bass Lake Road	38	1	2	5
47	Old Country Club Road	Bass Lake Road to Project Driveway 4	21	0	1	2
48	Old Country Club Road	Project Driveway 4 to Project Driveway 5	21	0	1	2
49	Old Country Club Road	Project Driveway 5 to Country Club Drive	19	0	0	1
50	Peridot Drive	North of Green Valley Road	51	3	6	12
51	Serrano Parkway	North of Bass Lake Road	56	12	25	54
52	Sienna Ridge Road	South of Bass Lake Road	51	4	9	19
53	Sienna Ridge Road	East of Bass Lake Road	19	0	0	0
54	Silva Valley Parkway	North of Tong Road	64	44	95	206

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Table 4.9-2
Existing Traffic Noise Modeling Results

#	Roadway	Segment	DNL at Nearest Sensitive Receptor	Distance to Contour (Feet)		
				70 dB DNL	65 dB DNL	60 dB DNL
55	Silva Valley Parkway	Tong Road to US 50 Westbound Ramp	51	44	95	206
56	Silva Valley Parkway	US 50 Westbound Ramp to US 50 Eastbound Ramp	51	46	98	212
57	Silver Dove Way	West of Bass Lake Road	27	0	1	2
58	Silver Springs Parkway	Green Valley Road to Bass Lake Road	54	8	18	39
59	Tong Road	East of Silva Valley Parkway	25	0	1	1
60	Trinidad Drive	South of Country Club Drive	46	2	4	9
61	US 50 Eastbound Ramp	East of Silva Valley Parkway	48	31	68	146
62	US 50 Eastbound Ramp	East of Bass Lake Road	45	15	31	68
63	US 50 Westbound Ramp	West of Silva Valley Parkway	49	31	68	145
64	US 50 Westbound Ramp	West of Bass Lake Road	51	39	85	183
65	Whistling Way	South of Bass Lake Road	37	1	1	3
66	White Rock Road	South of US 50 Eastbound Ramp	53	56	121	260
67	Woodleigh Lane	East of Bass Lake Road	55	5	11	24

Source: Bollard Acoustical Consultants, Inc., 2024.

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. According to the California Department of Transportation (Caltrans) Transportation and Construction Vibration Guidance Manual, 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

During BAC site visits conducted on July 18 and 22, 2023, vibration levels were below the threshold of perception within the project vicinity. Nonetheless, to quantify existing vibration levels in the project area, BAC conducted short-term (10-minute) vibration measurements at the five survey locations identified on Figure 4.9-2 on July 22, 2023. The results are summarized in Table 4.9-3 and indicate that measured maximum vibration levels within the project area ranged from 30 to 33 VdB, which is below the 65 VdB threshold of human perception.

Table 4.9-3
Short-Term Ambient Vibration Survey Results

Survey Location	Time	Average Measured Vibration Level (VdB)
Site 1: Northeast project area	11:01 AM	30
Site 2: Northwest project area	11:21 AM	31
Site 3: West project area	12:19 PM	30
Site 4: Southwest project area	11:59 AM	33

Source: Bollard Acoustical Consultants, Inc., 2023.

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 proposed project do not exist. The following provides a general overview of the existing State and local regulations that are relevant to the proposed project.

State Regulations

The following are the State environmental laws and policies relevant to noise and vibration.

California Building Code

The California Building Code (Title 24, Part 2 of the California Code of Regulations [CCR]) establishes uniform minimum noise insulation performance standards to protect persons within new buildings that house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings.

Title 24 mandates that interior noise levels attributable to exterior sources shall not 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 interior allowable 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.

El Dorado County General Plan

The relevant goals and policies from the El Dorado County General Plan related to noise and vibration are presented below.

Goal 6.5 ACCEPTABLE NOISE LEVELS: Ensure that County residents are not subjected to noise beyond acceptable levels.

Objective 6.5.1 PROTECTION OF NOISE-SENSITIVE DEVELOPMENT: Protect existing noise-sensitive developments (e.g., hospitals, schools, churches and residential) from new uses that would generate noise levels incompatible with those uses and, conversely, discourage noise-sensitive uses from locating near sources of high noise levels.

Policy 6.5.1.1 Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 6-1 (see Table 4.9-4) or the performance standards of Table 6-2 (see 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 6.5.1.2 Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 6-2 (see 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 6.5.1.3 Where noise mitigation measures are required to achieve the standards of Tables 6 and Table 7 (see Table 4.9-4 and 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 have been integrated into the project and the noise barriers are not incompatible with the surroundings.

Table 4.9-4
Noise Level Standards for Noise-Sensitive Land Uses Affected by Transportation Noise Sources

Sensitive Receptor	Outdoor Activity Areas[1]	Interior Spaces	
	L_{dn} / CNEL, dB	L_{dn} / CNEL, dB	Leq, dB[2]
Residential	60[3]	45	-
Transient Lodging	60[3]	45	-
Hospitals, Nursing Homes	60[3]	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls, Schools	60[3]	-	40
Office Buildings	-	-	45
Libraries, Museums	-	-	45
Playgrounds, Neighborhood Parks	70	-	-

1 In Communities and Rural Centers, where the location of outdoor activity areas is not clearly defined, the exterior noise level standard shall be applied to the property line of the receiving land use. For residential uses with front yards facing the identified noise source, an exterior noise level criterion of 65 dB L_{dn} shall be applied at the building facade, in addition to a 60 dB L_{dn} criterion at the outdoor activity area. In Rural Regions, an exterior noise level criterion of 60 dB L_{dn} shall be applied at a 100 foot radius from the residence unless it is within Platted Lands where the underlying land use designation is consistent with Community Region densities in which case the 65 dB L_{dn} may apply. The 100-foot radius applies to properties which are five acres and larger; the balance will fall under the property line requirement.

2 As determined for a typical worst-case hour during periods of use.

3 Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table 4.9-5
Noise Level Performance Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources

Noise Level Descriptor	Daytime (7 AM to 7 PM)		Evening (7 PM to 10 PM)		Nighttime (10 PM to 7 AM)	
	Community / Rural Centers	Rural Regions	Community / Rural Centers	Rural Regions	Community / Rural Centers	Rural Regions
Hourly L_{eq}, dBA	55	50	50	45	45	40
Maximum level, dBA	70	60	60	55	55	50

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.

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In Community Regions the exterior noise level standard shall be applied to the property line of the receiving property. In Rural Areas the exterior noise level standard shall be applied at a point 100' away from the residence. The above standards shall be measured only on property containing a noise-sensitive land use as defined in Objective 6.5.1.

Note: For the purposes of the Noise Element, transportation noise sources are defined as traffic on public roadways, railroad line operations and aircraft in flight. Control of noise from these sources is preempted by Federal and State regulations. Control of noise from facilities of regulated public facilities is preempted by California Public Utilities Commission (CPUC) regulations. All other noise sources are subject to local regulations. Non-transportation noise sources may include industrial operations, outdoor recreation facilities, HVAC units, schools, hospitals, commercial land uses, other outdoor land use, etc.

Policy 6.5.1.6	New noise-sensitive uses shall not be allowed where the noise level, due to non-transportation noise sources, will exceed the noise level standards of Table 6-2 (see Table 4.9-5) unless effective noise mitigation measures have been incorporated into the development design to achieve those standards.
Policy 6.5.1.7	Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 6-2 (see Table 4.9-5) for noise-sensitive uses.
Policy 6.5.1.8	New development of noise sensitive land uses will not be permitted in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels specified in Table 6-1 (see Table 4.9-4) unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels specified in Table 6-1 (see Table 4.9-4).
Policy 6.5.1.9	Noise created by new transportation noise sources, excluding airport expansion but including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 6-1 (see Table 4.9-4) at existing noise-Sensitive land uses.
Policy 6.5.1.11	The standards outlined in Tables 6-3, 6-4, and 6-5 (see Table 4.9-6, Table 4.9-7, and Table 4.9-8) shall not apply to those activities associated with actual construction of a project as long as such 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 on federally-recognized holidays. Further, the standards outlined in Tables 6-3, 6-4, and 6-5 (see Table 4.9-6, Table 4.9-7, and Table 4.9-8) shall not apply to public projects to alleviate traffic congestion and safety hazards.

Table 4.9-6
Maximum Allowable Noise Exposure for Non-Transportation Noise Sources in Community Regions and Adopted Plan Areas – Construction Noise

Land Use Designation[1]	Time Period	Noise Level (dB)	
		L_{eq}	L_{max}
Higher Density Residential (MFR, HDR, MDR)	7:00 AM-7:00 PM	55	75
	7:00 PM-10:00 PM	50	65
	10:00 AM-7:00 AM	45	60
Commercial and Public Facilities (C, R&D, PF)	7:00 AM-7:00 PM	70	90
	10:00 PM-7:00 AM	65	75
Industrial (I)	Any Time	80	90

Note:
[1] Adopted Plan areas should refer to those land use designations that most closely correspond to the similar General Plan land use designations for similar development.

Table 4.9-7
Maximum Allowable Noise Exposure for Non-Transportation Noise Sources in Rural Centers-Construction Noise

Land Use Designation[1]	Time Period	Noise Level (dB)	
		L_{eq}	L_{max}
All Residential (MFR, HDR, MDR)	7:00 AM-7:00 PM	55	75
	7:00 PM-10:00 PM	50	65
	10:00 AM-7:00 AM	40	55
Commercial, Recreation, and Public Facilities (C, TR, PF)	7:00 AM-7:00 PM	65	75
	7:00 PM-7:00 AM	60	70
Industrial (I)	Any Time	70	80
Open Space (OS)	7:00 AM-7:00 PM	55	75
	7:00 PM-7:00 AM	50	65

Policy 6.5.1.12 When determining the significance of impacts and appropriate mitigation for new development projects, the following criteria shall be taken into consideration:

A. Where existing or projected future traffic noise levels are less than 60 dB DNL at the outdoor activity areas of residential uses, an increase of more than 5 dBA DNL (or CNEL) caused by a new transportation noise source will be considered significant.

B. Where existing or projected future traffic noise levels range between 60 and 65 dBA DNL (or CNEL) at the outdoor activity areas of residential uses, an increase of more than 3 dBA DNL (or CNEL) caused by a new transportation noise source will be considered significant; and
C. Where existing or projected future traffic noise levels are greater than 65 dBA DNL (or CNEL) at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA DNL (or CNEL) caused by a new transportation noise source will be considered significant.

Table 4.9-8
Maximum Allowable Noise Exposure for Non-Transportation Noise Sources in Rural Regions – Construction Noise

Land Use Designation[1]	Time Period	Noise Level (dB)	
		L_{eq}	L_{max}
All Residential (LDR)	7:00 AM-7:00 PM	50	60
	7:00 PM-10:00 PM	45	55
	10:00 AM-7:00 AM	40	50
Commercial, Recreation, and Public Facilities (C, TR, PF)	7:00 AM-7:00 PM	65	75
	7:00 PM-7:00 AM	60	70
Rural Land, Natural Resources, Open Space, and Agricultural Lands (RR, NR, OS, AL)	7:00 AM-7:00 PM	65	75
	7:00 PM-7:00 AM	60	70

Policy 6.5.1.13 When determining the significance of impacts and appropriate mitigation for new development projects, the following criteria shall be taken into consideration:

A. In areas in which ambient noise levels are in accordance with the standards in Table 6-2 (see Table 4.9-5), increases in ambient noise levels caused by new nontransportation noise sources that exceed 5 dBA shall be considered significant; and
B. In areas in which ambient noise levels are not in accordance with the standards in Table 6-2 (Table 4.9-5), increases in ambient noise levels caused by new nontransportation

noise sources that exceed 3 dBA shall be considered significant.

El Dorado County Code

Section 130.37.060, Noise Standards, of the El Dorado County Code establishes both transportation and non-transportation noise level standards for noise-sensitive receptors. The purpose of the Noise Ordinance is to implement the noise level standards identified in the El Dorado County General Plan. The specific language of Section 130.37.060 is provided below:

A. Noise sensitive land uses affected by non-transportation noise sources shall not exceed standards set forth in Table 130.37.060.1 (see Table 4.9-5) (Noise Level Performance Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources) below in this Section:

    1. Each of the noise levels specified above shall be lowered by five dBA for simple tone noises, noises consisting primarily of unamplified speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses, such as caretaker dwellings.
    2. The Director can impose noise level standards which are up to five dBA less than those specified above, based upon a determination of existing low ambient noise levels in the vicinity of the project site.
    3. The exterior noise level standard shall be applied as follows:
        a. In Community Regions, at the property line of the receiving property;
        b. In Rural Centers and Regions, at a point 100 feet away from a sensitive receptor or, if the sensitive receptor is within the Platted Lands Overlay (-PL) where the underlying land use designation is consistent with Community Region densities, at the property line of the receiving property or 100 feet away from the sensitive receptor, whichever is less; or
        c. In all areas, at the boundary of a recorded noise easement between affected properties.

B. Transportation noise shall not exceed thresholds set forth in Table 130.37.060.2 (Noise Level Standards for Noise-Sensitive Land Uses Affected by Transportation Noise Sources) (see Table 4.9-4) below in this Section:

    1. In Community Regions and Rural Centers:
        a. Where the location of outdoor activity areas is not clearly defined, the exterior noise level standard shall be applied at the property line of the sensitive receptor.
        b. For residential uses with front yards facing the identified noise source, an exterior noise level threshold of 65 dBA Ldn shall be applied at the dwelling facade in addition to the required threshold at the outdoor activity area.
    2. In Rural Regions: An exterior noise level threshold of 60 dBA Ldn shall be applied at a 100-foot radius from the dwelling on lots five acres and larger. Those lots less than five acres shall have the noise level standards applied at the property line.
    3. Where it is not possible to reduce noise levels in those outdoor activity areas limited to 60 dBA Ldn/CNEL thresholds using a practical application of the best-available noise reduction measures, an exterior noise threshold of up to 65 dBA Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

C. Construction-related noise shall allow for exceptions to the evening and night time standards or other temporary exceedances of noise standards as may be approved by the Director, where necessary to alleviate traffic congestion and safety hazards, or where authorized by an approved permit.

Pursuant to Section 130.37.020, Exemptions, of the El Dorado County Code, sound or noise emanating from construction activities during daylight hours, is exempt from Section 130.67.060 of the El Dorado County Code, provided that all construction equipment is fitted with factory installed muffling devices and that all construction equipment is maintained in good working order.

Bass Lake Hills Specific Plan

Chapter 7.1 of the BLHSP contains Noise Standards for the plan area, the specific language of which is provided below.

1. Interior and exterior noise levels for transportation sources shall not exceed levels contained in the General Plan Noise Element.
2. Tentative subdivisions which propose lots within the 65 dB DNL contours lines shown along U.S. Highway 50 and Bass Lake Road in (BLHSP) Figure 7-1 (of the BLHSP) , shall submit acoustical analyses consistent with General Plan Noise Element policies and procedures.
3. Setbacks, berms, and/or other noise attenuation measures capable of reducing street and highway noise levels to standards contained in the General Plan Noise Element shall be provided where required in all residential areas and schools. Prohibiting the creation of additional housing units within the 65 dB CNEL noise contour shall occur as an alternative to using sound walls to mitigate noise related impacts. A setback of at least 50 feet for residential units from Bass Lake Road shall be provided.
4. All noise attenuation structures and landscaping shall adhere to a common design theme outlined in Section 8.6.1 of the Design Guidelines.

4.9.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to noise and vibration. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Impacts of the environment on a project (as opposed to impacts of a project on the environment) are beyond the scope of required California Environmental Quality Act (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 proposed project's future residents will be exposed to pre-existing environmental noise-related hazards, but instead whether project-generated noise would exacerbate the pre-existing conditions.

Standards of Significance

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 proposed 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 4.15, Effects Not Found to be Significant).

As noted above, impacts related to exposure of people to airport noise levels are discussed in Chapter 4.15, Effects Not Found to be Significant, of this EIR.

Summary of Applicable Noise Standards

Applicable noise level standards from the El Dorado County General Plan and the El Dorado County Code are summarized below.

Transportation Noise

A significant transportation noise impact could occur if the project would cause the numerical standards shown in Table 4.9-4 to be exceeded. Ambient increase standards are set forth by El Dorado County General Plan Policy 6.5.1.12, which establishes that where existing or projected future traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of residential uses, an increase of more than 5.0 dBA L_{dn}/CNEL caused by a new transportation noise source will be considered significant. Where existing or projected future traffic noise levels range between 60 and 65 dBA L_{dn}/CNEL at the outdoor activity areas of residential uses, an increase of more than 3.0 dBA L_{dn}/CNEL caused by a new transportation noise source will be considered significant. Lastly, where existing or projected future traffic noise levels are greater than 65 dBA L_{dn}/CNEL at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA L_{dn}/CNEL caused by a new transportation noise source will be considered significant.

Non-Transportation Source Noise

A significant non-transportation noise impact could occur if the project would exceed the numerical standards shown in Table 4.9-5. Ambient increase standards are set forth by El Dorado County General Plan Policy 6.5.1.13, which establishes that where ambient noise levels are in accordance with the standards in Table 4.9-5, increases in ambient noise levels caused by new non-transportation noise sources that exceed 5 dBA shall be considered significant, and where ambient noise levels are not in accordance with the standards in Table 4.9-5, increases in ambient noise levels caused by new non-transportation noise sources that exceed 3 dBA shall be considered significant.

Construction Noise

El Dorado County General Plan Policy 6.5.1.11 establishes that construction noise that exceeds the standards outlined in Table 4.9-6, Table 4.9-7, and Table 4.9-8 shall be considered significant. However, such construction noise standards shall not apply as long as such construction occurs

between the hours of 7:00 AM and 7:00 PM, Monday through Friday, and 8:00 AM and 5:00 PM on weekends and on federally-recognized holidays.

Vibration

El Dorado County does not have specific policies or standards pertaining to vibration levels. However, vibration levels associated with construction activities and project operations are addressed as potential vibration impacts associated with project implementation. 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 operations have the potential to result in varying degrees of temporary ground vibration depending on the specific construction equipment used and operations involved. The vibration impact criteria developed by the Federal Transit Administration (FTA) is used as the standard of significance for vibration impacts. The FTA criteria applicable to damage and annoyance from vibration typically associated with construction activities are presented in Table 4.9-9 and Table 4.9-10.

Table 4.9-9
FTA Criteria for Assessing Vibration Damage to Structures

Building Category	Level (VdB)[1]
I. Reinforced-concrete, steel or timber (no plaster)	102
II. Engineered concrete and masonry (no plaster)	98
III. Non-engineered timber and masonry buildings	94
IV. Buildings extremely susceptible to vibration damage	90

[1] RMS velocities in decibels, VdB re 1 micro-inch/second.

Source: 2018 FTA Noise and Vibration Manual, Table 7-5

Method of Analysis

Below are descriptions of the methodologies used in the Noise Assessment (see Appendix O of this EIR) to measure background and ambient noise and estimate future traffic noise, construction noise, and vibration associated with the project. Further modeling details and calculations are provided in Appendix O of this EIR. The results of the noise and vibration impact analyses were compared to the standards of significance discussed above in order to determine the associated level of impact.

Existing Ambient Noise Levels

To quantify existing ambient noise levels within the project site, BAC conducted long-term (72-hour) ambient noise level measurements at four locations (see Figure 4.9-2) from July 19 to July 21, 2023. Larson Davis Laboratories (LDL) Model LxT precision integrating sound level meters were used to complete the long-term noise level survey. The meters were calibrated immediately before and after use with an LDL Model CA200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all specifications of the American National Standards Institute requirements for Type 1 sound level meters (ANSI S1.4). The results of the long-term ambient noise survey are shown numerically and graphically in Appendices D and E of the Noise Assessment, and are summarized in Table 4.9-1 above.

Table 4.9-10
FTA Groundborne Vibration Impact Criteria for General Assessment

Land Use Category	Impact Levels (VdB)		
	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
Category 1: Buildings where vibration would interfere with interior operations	65[d]	65[d]	65[d]
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83

a "Frequent Events" is defined as more than 70 vibration events of the same source per day.
b "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
c "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.
d This criterion limit is based on levels that are acceptable for most moderately-sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels.

Source: 2018 FTA Noise and Vibration Manual, Table 6-3

Transportation Noise

The FHWA-RD-77-108 traffic noise model was used to quantify existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network, for roadways within the project vicinity. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values. Traffic data in the form of peak hour intersection turning movements were obtained from T. Kear Transportation Planning and Management, Inc. (T. Kear), the transportation consultant for the proposed project. The peak hour intersection turning movements were converted to Average Daily Traffic (ADT) segment volumes by applying a factor of five to the sum of AM and PM peak hour conditions. Using such data and the FHWA Model, existing traffic noise levels along roadways within the project vicinity roadway network were calculated. The traffic noise levels at the distances representing the nearest sensitive land uses to the project vicinity roadways and distances from the centerlines of selected roadways to the 60 dB DNL, 65 dB DNL, and 70 dB DNL contours are summarized in Table 4.9-2. A complete listing of the FWHA Model inputs for existing conditions are provided in Appendix B of the Noise Assessment. In many cases, the actual distances to noise level contours may vary from the distances predicted by the FHWA Model. Factors such as roadway curvature, roadway grade, shielding by way of local topography or structures, elevated roadways, or elevated receivers may affect actual traffic sound propagation. The FHWA Model was used with traffic input data to predict project traffic noise level increases relative to existing and cumulative conditions, both with and without the proposed project.

Operational Noise

The northern portion of the project area is located within the Community Region of the El Dorado County General Plan. The central and southern portions of the project area, or south of Country Club Drive, are located within the Rural Region of the General Plan. As a result, the County's non-transportation noise level limits and associated criteria for Community Regions identified above in Table 4.9-5 were applied to on-site operations noise affecting residential receivers 1-5. Additionally, the noise level limits and associated criteria for Rural Regions identified in Table 4.9-5 were applied to project onsite operations noise affecting residential receivers 6-9. In Community

Regions, the County's exterior noise level limits are to be applied at property line of a receiving residential property. In Rural Areas, the County's noise level limits are to be applied at a point 100 feet away from the residence. The locations of residential receivers 1-9 are shown in Figure 4.9-2.

The following discussions include the methods BAC used to quantify noise levels associated with each component of the proposed project.

On-Site Vehicle Circulation

To quantify on-site traffic circulation noise levels at nearby existing residential uses, the FHWA-RD-77-108 was used with trip generation data prepared by T. Kear. According to that data, the Project Development Area is estimated to generate 2,110 total daily trips (137 AM peak hours trips, 185 PM peak hour trips), and the Program Study Area is estimated to generate 12,044 total daily trips (922 AM peak hours trips, 916 PM peak hour trips). BAC assumed an on-site vehicle speed of 30 miles per hour (mph) to calculate the on-site traffic circulation noise levels.

Parking Area

To determine potential noise exposure due to commercial parking lot activities, specific parking lot noise level measurements were conducted by BAC. Specifically, a series of individual noise measurements were conducted of multiple vehicle types arriving and departing a parking area, including engines starting and stopping, car doors opening and closing, and persons conversing as they entered and exited the vehicles. To calculate hourly L_{eq} noise levels generated by parking lot activities, the approximate number of hourly operations in any given area and distance to the effective noise center of those activities is required. Thus, the closest 200 parking stalls from the Hotels/Event Center/Museum and the closest 40 parking stalls proposed within the Residential Cottages components of the project to a receiver were conservatively assumed to fill or empty during a given peak hour (worst-case) scenario. For a conservative assessment of Program Study Area parking area noise generation, an individual parking area was assumed to accommodate up to 200 vehicles. The hourly average noise levels generated by parking lot movements were computed using the following formula:

$$\textit{Peak Hour Leq} = 70+10*\log(N) - 35.6$$

Where 70 is the mean Sound Exposure Level (SEL) for an automobile parking lot arrival or departure, N is the number of parking lot operations in a given hour, and 35.6 is 10 times the logarithm of the number of seconds in an hour. Using the information provided above, the provided site plans, and assuming standard spherical spreading loss (-6.0 dB per doubling of distance), parking area noise exposure at residential receivers 1-9 was calculated. Mean noise levels were determined to be approximately 70 dB SEL at a reference distance of 50 feet. The maximum noise level associated with parking lot activity typically did not exceed 65 dB L_{max} at the same reference distance.

On-Site Delivery Truck Circulation

According to the Noise Assessment, on-site truck passbys are expected to be relatively brief and would occur at low speeds. To predict noise levels generated by on-site truck circulation, BAC used file data from measurements of heavy and medium duty truck passbys. According to BAC file data, single-event heavy truck passby noise levels are approximately 74 dB L_{max} and 83 dB SEL at a reference distance of 50 feet. BAC file data also indicates that single-event medium truck passby noise levels are approximately 66 dB L_{max} and 76 SEL at a reference distance of 50

feet. To predict hourly average noise levels for comparison against the County's hourly L_{eq} noise level standard, the Project Development Area and Program Study Area were each conservatively assumed to have a total of two heavy truck and two medium duty truck deliveries during the same worst-case hour.

On-Site Delivery Truck Activity

BAC used file data to determine that noise levels associated with medium-duty truck (including side-step vans) and heavy-duty truck deliveries are approximately 65 dB L_{max} and 83 dB SEL at a distance of 100 feet. To predict hourly average noise levels for comparison against the County's hourly L_{eq} noise level standard, the Project Development Area and Program Study Area were each conservatively assumed to have a total of two heavy truck and two medium duty truck deliveries during the same worst-case hour.

Mechanical Equipment

To estimate potential noise exposure due to rooftop heating, ventilation, and air-conditioning (HVAC) units from the Event Center/Museum and Hotel buildings, BAC used reference file data collected for previous studies. BAC reference file data for HVAC systems indicate that a 12.5-ton packaged unit can be expected to generate an A-weighted sound power level of 85 dB. According to the Noise Assessment, hotel buildings typically have HVAC units for main corridors/larger spaces, and smaller-sized condenser units for individual rooms. To quantify noise exposure from the individual rooftop-mounted condenser units, BAC used manufacturer-published sound level data for a smaller-sized condenser model (Carrier Model CH14NB-024), which indicate a reference sound power level of 76 dB. Finally, to quantify noise exposure from HVAC equipment associated with the Residential Cottages, BAC used sound level data for a condenser model commonly used for single-family residences (Rheem Model RA1630), which has a manufacturer-published sound power level of 74 dB.

Outdoor Event Crowd and Amplified Music/Speech

To quantify event-generated crowd noise, BAC used reference file data for persons speaking in casual, normal, and raised voices (casual = 52 dB per person at three feet; normal voice = 57 dB per person at three feet; raised voice = 64 dB per person at three feet), and file data for persons clapping. Using the BAC file data provided above, 50 percent of a 300-person crowd conversing simultaneously (150 people speaking, 150 people listening) and standard spherical spreading loss (-6.0 dB per doubling of distance) was assumed.

To quantify the noise levels generated from project-generated amplified music/speech within the Event Center second story outdoor balcony area, BAC used reference sound level data from previous noise studies prepared for similar event spaces. According to the Noise Assessment, typical noise levels from amplified music/speech at wedding receptions, such as the event type that could occur within the Event Center second floor outdoor balcony, range from 75 dB to 80 dB L_{eq} and from 80 dB to 85 dB L_{max} at a distance of 50 feet from the sound system speakers. Such reference noise levels are believed to be conservative levels at which amplified music/speech could occur during a wedding reception. For the purpose of this analysis, the reference sound level data for a wedding reception sound system was utilized to quantify outdoor event amplified music/speech within the oak terrace areas.

Construction Noise and Vibration

Construction noise and vibration was analyzed using data compiled for various pieces of construction equipment at representative distances of 50 and 25 feet, respectively. Construction noise is discussed relative to the applicable El Dorado County noise policies and standards.

BAC conducted short-term (10-minute) vibration measurements at the four survey locations identified on Figure 4.9-2 on July 22, 2023. An LDL Model LxT precision integrating sound level meter equipped with a vibration transducer was used to complete the measurements. The results are summarized in Table 4.9-3.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the baseline and 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, the impact is *less than significant.*

Construction activities associated with the proposed project, including off-site improvements, would require the use of numerous pieces of noise-generating equipment, such as excavating machinery (e.g., backhoes, bulldozers, excavators, front loaders) and other construction equipment (e.g., compactors, scrapers, graders). Construction worker traffic and construction-related material haul trips would raise ambient noise levels along local haul routes, depending on the number of haul trips made and types of vehicles used.

The following discussions address the potential temporary increases in ambient noise levels from the proposed project on the surrounding environment due to on-site and off-site construction activities.

On-Site Construction Noise at Existing Noise-Sensitive Receptors

The following discussion applies to both components of the proposed project.

Project Development Area and Project Buildout

During project construction, heavy equipment would be used for grading, excavation, paving, and structure construction, 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 single point outside the project site would also vary depending on the distance from the source. The nearest existing noise-sensitive uses to the Project Development Area have been identified as residential receivers 2 and 7, and the nearest existing noise-sensitive uses to the Program Study Area are residential receivers 1 and 7.

Table 4.9-11 includes the range of L_{max} noise levels for equipment commonly used in construction projects at full-power operation at a distance of 50 feet. It should be noted that not all construction activities would be required for the proposed project. Table

4.9-11 also shows the predicted maximum equipment noise levels at the nearest identified existing noise-sensitive uses to the respective project areas, which assume a standard spherical spreading loss of 6.0 dB per doubling of distance.

Table 4.9-11
Noise Levels for Typical Residential Construction Equipment and Predicted Noise Levels

Equipment Description	Maximum Noise Level at 50 Feet, L_{max} (dB)	Predicted Noise Level at Receiver, L_{max} (dB)		
		Receiver 2 (900 Feet)	Receiver 7 (500 Feet)	Receiver 1 (600 Feet)
Air Compressor	80	55	60	58
Backhoe	80	55	60	58
Ballast Equalizer	82	57	62	60
Ballast Tamper	83	58	63	61
Compactor	82	57	62	60
Concrete Mixer	85	60	65	63
Concrete Pump	82	57	62	60
Concrete Vibrator	76	51	56	54
Crane, Mobile	83	58	63	61
Dozer	85	60	65	63
Excavator	85	60	65	63
Generator	82	57	62	60
Grader	85	60	65	63
Impact Wrench	85	60	65	63
Loader	80	55	60	58
Paver	85	60	65	63
Pneumatic Tool	85	60	65	63
Pump	77	52	57	55
Saw	76	51	56	54
Scarifier	83	58	63	61
Scraper	85	60	65	63
Shovel	82	57	62	60
Spike Driver		52	57	55
Tie Cutter	84	59	64	62
Tie Handler	80	60	60	58
Tie Inserter	85	60	65	63
Truck	84	59	64	62
Low		**51**	**56**	**54**
High		**60**	**65**	**63**
Average		**55**	**61**	**59**

Source: Bollard Acoustical Consultants, Inc., 2024.

El Dorado County General Plan Policy 6.5.1.11 exempts noise sources associated with construction activities, provided that such activities occur between the hours of 7:00 AM and 7:00 PM, Monday through Friday, and 8:00 AM and 5:00 PM on weekends and federally-recognized holidays. However, the exemption is provided on the basis that all construction equipment is fitted with factory-installed muffling devices and maintained in good working order. It is reasonably assumed that all noise-generating project construction equipment and activities would occur pursuant to General Plan Policy 6.5.1.11 and would, thereby, be exempt from the applicable noise level criteria. Notwithstanding, Appendix G of the CEQA Guidelines (Section XIII, question 'a') requires a lead agency to determine if a project would result in the generation of a substantial temporary increase in ambient noise levels. In terms of determining the temporary noise increase due to project-related construction activities, an impact would occur if construction activity would exceed increase significance criteria established in General Plan Policy 6.5.1.13.

Measurements obtained at noise monitoring sites 1 and 3 are believed to be generally representative of the ambient noise level environment at residential receivers 1, 2, and 7 within the project vicinity (see Figure 4.9-2). Pursuant to Policy 6.5.1.13 criteria, and based on the results from the BAC ambient noise level survey, the increase significance criterion of 5.0 dB was appropriately applied at residential receivers 1 and 2. Additionally, the Policy 6.5.1.13 increase significance criterion of 3.0 dB was appropriately applied at residential receiver 7.

Using the highest average measured hourly maximum noise levels during construction hours exempted by General Plan Policy 6.5.1.11, and the highest predicted construction equipment maximum noise levels shown in Table 4.9-11, Existing Plus Project construction noise level increases were calculated at the closest existing noise-sensitive uses.

According to the Noise Assessment, increases in ambient maximum noise levels from project construction activities would range from 0.4 dB L_{max} to 0.8 dB L_{max} at residential receivers 1 and 2, and would be 0.3 dB L_{max} at residential receiver 7. The calculated ambient maximum noise level increases would be below the applicable increase significance criteria contained in General Plan Policy 6.5.1.13. Therefore, noise impacts associated with the temporary increase in ambient noise levels from project on-site construction activities at the nearest sensitive receptors would be less than significant.

Off-Site Improvements Construction Noise at Existing Noise-Sensitive Receptors

The proposed project would include necessary off-site potable water, sewer/wastewater, and stormwater drainage improvements. The proposed project would also include the construction of a bike path bridge over Bass Lake Road. Similar to the temporary noise level increases that would occur due to construction activities associated with the proposed project, heavy equipment associated with construction of the off-site improvements would temporarily increase existing ambient noise levels, with noise increases dependent on the factors previously described (i.e., equipment type, operation, and maintenance). The nearest existing noise-sensitive receptor to the proposed off-site water line is a residence on Tierra de Dios Drive, approximately

250 feet away. The nearest existing receptor to the proposed off-site sewer line is a residence on Tong Road, approximately 200 feet away, and the nearest existing sensitive receptor to the proposed bike path bridge is a residence on Old Bass Lake Road, approximately 400 feet away.

Table 4.9-12 includes the range of maximum (L_{max}) noise levels for equipment commonly used in construction projects at full-power operation at a distance of 50 feet. The table also includes predicted maximum equipment noise levels at the nearest identified sensitive receptors (residences) to the proposed off-site water, sewer, and bike path improvements, which assume a standard spherical spreading loss of 6.0 dB per doubling of distance.

Table 4.9-12
Off-Site Improvements Construction Noise Levels

Equipment	Typical Maximum Noise Level at 50 Feet (dB)	Predicted Maximum Noise Levels Nearest Existing Receptors (dB)		
		Water (250 Feet)	Sewer (200 Feet)	Bike Bridge (400 Feet)
Backhoe	80	66	68	62
Compactor	82	68	70	64
Concrete Mixer Truck	85	71	73	67
Concrete Pump	82	68	70	64
Concrete Vibrator	76	62	64	58
Crane, Mobile	83	69	71	65
Dozer	85	71	73	67
Dump Truck	82	68	70	64
Flatbed Truck	84	70	72	66
Front End Loader	80	66	68	62
Paver	85	71	73	67
Pump	77	63	65	59
Saw	76	62	64	58
Shovel	82	68	70	64
Pickup Truck	84	70	72	66
Low		**62**	**64**	**58**
High		**71**	**73**	**67**
Average		**67**	**68**	**62**

Source: Bollard Acoustical Consultants, Inc., 2024.

Noise from off-site improvement construction activities would increase ambient noise levels in the project vicinity. In terms of determining the temporary noise increase due to project-related infrastructure construction activities, an impact would occur if such activities would exceed increase significance criteria established in General Plan Policy 6.5.1.13. According to the Noise Assessment, measurements obtained at noise monitoring sites 1 and 3 would be generally representative of the ambient noise level environments at the nearest identified existing sensitive uses to the off-site potable water, sewer/wastewater, and bike bridge improvement areas. Pursuant to Policy

6.5.1.13 criteria, and based on the results from the ambient noise level survey, the increase significance criterion of 5.0 dB was appropriately applied at the closest existing noise-sensitive use to the off-site potable water and sewer/wastewater infrastructure work areas. Additionally, the Policy 6.5.1.13 increase significance criterion of 3.0 dB was appropriately applied at the closest existing noise-sensitive use to the bike bridge improvement area.

Using the highest average measured hourly maximum noise levels during construction hours exempted by General Plan Policy 6.5.1.11, and the highest predicted construction equipment maximum noise levels shown in Table 4.9-12, ambient plus off-site improvement construction noise level increases were calculated at the closest existing noise-sensitive uses. The results indicate that increases in ambient maximum noise levels from infrastructure construction activities would range from 3.2 dB L_{max} to 4.3 dB L_{max} at the closest noise-sensitive uses to the off-site potable water and sewer/wastewater infrastructure work areas, and would be 0.5 dB L_{max} at the closest noise-sensitive use to the bike bridge infrastructure work area. The calculated ambient maximum noise level increases above would be below the applicable increase significance criteria contained in General Plan Policy 6.5.1.13.

Conclusion

Based on the above, worst-case, maximum project construction noise levels associated with on-site and off-site construction activities would not result in a significant temporary noise level increase to the nearest receptor. Therefore, the proposed project would not generate a substantial temporary increase in ambient noise levels in the project vicinity in excess of applicable standards, and a ***less-than-significant*** impact would occur.

It is also noted that the County requires standard construction noise best management practices (BMPs) as part of conditions of approval (COAs). The County would require the following conditions of project approval:

1. The following criteria shall be included in the Improvement Plans. Exceptions to allow expanded construction activities shall be reviewed on a case-by-case basis as determined by the El Dorado County Planning and Building Department.

    - All on-site noise-generating construction activities shall be limited to between the hours of 7:00 AM to 7:00 PM, Monday through Friday, and 8:00 AM to 5:00 PM on weekends and federally-recognized holidays.
    - All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturer-recommended mufflers and be maintained in good working condition.
    - All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, State, or local agency shall comply with such regulations while in the course of project activity.
    - Electrically powered equipment shall be used instead of pneumatic or internal combustion-powered equipment, where feasible.
    - Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.

- Construction site and access road speed limits shall be established and enforced during the construction period.
- Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.

Mitigation Measure(s)

None required.

4.9-2 Generation of a substantial permanent increase in ambient noise levels associated with the Project Development Area 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.*

Noise sources associated with operation of the Project Development Area would consist of traffic noise, as well as on-site vehicle circulation, parking lot activities, on-site delivery truck circulation and activity, HVAC equipment, and the Event Center/Museum.

Traffic Noise at Existing Noise-Sensitive Receptors

Using the methodology described above in the Method of Analysis section, traffic noise levels under Existing and Existing Plus Project conditions were estimated as part of the Noise Assessment and are shown in Table 4.9-13.

The estimated noise levels are provided in terms of DNL. The Existing and Existing Plus Project traffic noise levels at the distances representing the nearest existing sensitive land uses to the selected roadway segments are summarized in the table. In addition, the table includes an assessment of predicted traffic noise levels relative to the Federal Interagency Committee on Noise (FICON) noise level increase significance criteria presented in General Plan Policy 6.5.1.12.

As shown in Table 4.9-13, the increase in traffic noise levels attributable to the proposed project under Existing Plus Project conditions would be below the El Dorado County increase significance criteria included in General Plan Policy 6.5.1.12. Therefore, the increase in traffic noise levels at existing sensitive receptors due to the proposed project would be considered less-than-significant.

It should be noted that the traffic noise levels presented above only account for traffic associated with the Project Development Area. Such approach matches the non-CEQA Local Transportation Analysis prepared for the proposed project, whereby Existing Plus Project scenario included the Project Development Area only, and the 2040 Cumulative Plus Project scenario included both the Project Development Area and the Program Study Area. Including only traffic noise associated with the Project Development Area in the analysis herein provides a reasonable assumption, as the existing scenario baseline is 2023, and adding full Project Buildout to 2023 conditions would be unrealistic.

Table 4.9-13
Predicted Traffic Noise Level Increases at Existing Sensitive Receptors – 2023 Existing vs. 2023 Existing Plus Project

#	Roadway	Segment	Noise Levels at 100 Feet, DNL (dB)			Significance Threshold (dB)[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			Existing	Existing Plus Project	Increase				
1	Alexandrite Drive	North of Green Valley Road	32.2	32.2	0.0	5.0	No	Yes	No
2	Bass Lake Road	Green Valley Road to Woodleigh Lane	62.9	62.9	0.0	3.0	No	Yes	No
3	Bass Lake Road	Woodleigh Lane to Magnolia Hills Drive	61.0	61.0	0.0	3.0	No	Yes	No
4	Bass Lake Road	Magnolia Hills Drive to Silver Springs Parkway	59.3	59.3	0.0	5.0	No	Yes	No
5	Bass Lake Road	Bass Lake Road to Madera Way	58.9	58.9	0.0	5.0	No	Yes	No
6	Bass Lake Road	Madera Way to Bridlewood Drive	59.5	59.5	0.0	5.0	No	Yes	No
7	Bass Lake Road	Bridlewood Drive to Whistling Way	58.3	58.3	0.0	5.0	No	Yes	No
8	Bass Lake Road	Whistling Way to Serrano Parkway	58.3	58.3	0.0	5.0	No	Yes	No
9	Bass Lake Road	Serrano Parkway to Brannan Way	59.3	59.3	0.1	5.0	No	Yes	No
10	Bass Lake Road	Brannan Way to Hawk View Road	60.4	60.4	0.1	3.0	No	Yes	No
11	Bass Lake Road	Hawk View Road to Sienna Ridge Road	53.4	53.5	0.1	5.0	No	Yes	No
12	Bass Lake Road	Sienna Ridge Road to Hollow Oak Drive	56.2	56.3	0.1	5.0	No	Yes	No
13	Bass Lake Road	Hollow Oak Drive to Silver Dove Way	51.8	51.8	0.1	5.0	No	Yes	No
14	Bass Lake Road	Silver Dove Way to Country Club Drive	55.4	55.5	0.1	5.0	No	Yes	No
15	Bass Lake Road	Country Club Drive to Project Driveway 1	55.0	55.8	0.7	5.0	No	Yes	No
16	Bass Lake Road	Project Driveway 1 to Old Country Club Drive	55.0	55.8	0.8	5.0	No	Yes	No
17	Bass Lake Road	Old Country Club Drive to US 50 Westbound Ramp	51.3	51.7	0.4	5.0	No	Yes	No
18	Bass Lake Road	US 50 Westbound Ramp to US 50 Eastbound Ramp	46.8	47.4	0.6	5.0	No	Yes	No
19	Brannan Way	West of Bass Lake Road	46.7	46.7	0.0	5.0	No	Yes	No
20	Bridlewood Drive	East of Bass Lake Road	54.1	54.2	0.1	5.0	No	Yes	No
21	Cambridge Road	South of Green Valley Road	60.6	60.6	0.0	3.0	No	Yes	No
22	Cambridge Road	North of Merrychase Drive	62.6	62.6	0.0	3.0	No	Yes	No
23	Cambridge Road	US 50 Eastbound Ramp to US 50 Westbound Ramp	54.8	55.2	0.4	5.0	No	Yes	No
24	Church Place	North of Country Club Drive	30.8	30.8	0.0	5.0	No	Yes	No
25	Country Club Drive	Bass Lake Road to Project Driveway 2	42.0	42.9	0.8	5.0	No	Yes	No
26	Country Club Drive	Project Driveway 2 to Project Driveway 3	41.0	41.1	0.2	5.0	No	Yes	No
27	Country Club Drive	Project Driveway 3 to Church Place	44.8	45.0	0.2	5.0	No	Yes	No
28	Country Club Drive	Church Place to Morrison Road	45.5	45.6	0.2	5.0	No	Yes	No
29	Country Club Drive	Morrison Road to El Norte Road	57.3	57.5	0.2	5.0	No	Yes	No
30	Country Club Drive	El Norte Road to Merrychase Drive	58.7	58.9	0.2	5.0	No	Yes	No
31	Country Club Drive	East of Merrychase Drive	57.8	57.9	0.1	5.0	No	Yes	No
32	El Norte Road	North of Country Club Drive	43.5	43.6	0.1	5.0	No	Yes	No
33	Flying C Road	South of US 50 Eastbound Ramp	43.7	43.7	0.0	5.0	No	Yes	No
34	Green Valley Road	West of Silver Springs Parkway	59.7	59.7	0.0	5.0	No	Yes	No
35	Green Valley Road	Silver Springs Parkway to Bass Lake Road	58.9	58.9	0.0	5.0	No	Yes	No
36	Green Valley Road	Bass Lake Road to Cambridge Road	61.2	61.2	0.0	3.0	No	Yes	No
37	Green Valley Road	East of Cambridge Road	60.5	60.5	0.0	3.0	No	Yes	No
38	Hawk View Road	West of Bass Lake Road	46.4	47.0	0.5	5.0	No	Yes	No
39	Hawk View Road	East of Bass Lake Road	15.8	15.8	0.0	5.0	No	Yes	No
40	Hollow Oak Drive	East of Bass Lake Road	46.0	46.0	0.0	5.0	No	Yes	No
41	Madera Way	East of Bass Lake Road	55.3	55.3	0.0	5.0	No	Yes	No
42	Magnolia Hills Drive	South of Bass Lake Road	53.6	53.6	0.0	5.0	No	Yes	No
43	Marble Valley Road	South of US 50 Eastbound Ramp	45.2	45.2	0.0	5.0	No	Yes	No
44	Merrychase Drive	Country Club Drive to Cambridge Road	58.9	58.9	0.0	5.0	No	Yes	No

(Continues on next page)

Table 4.9-13
Predicted Traffic Noise Level Increases at Existing Sensitive Receptors – 2023 Existing vs. 2023 Existing Plus Project

#	Roadway	Segment	Noise Levels at 100 Feet, DNL (dB)			Significance Threshold (dB)[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			Existing	Existing Plus Project	Increase				
45	Morrison Road	North of Country Club Drive	53.1	53.1	0.0	5.0	No	Yes	No
46	Old Bass Lake Road	West of Bass Lake Road	37.5	37.5	0.0	5.0	No	Yes	No
47	Old Country Club Road	Bass Lake Road to Project Driveway 4	21.3	21.3	0.0	5.0	No	Yes	No
48	Old Country Club Road	Project Driveway 4 to Project Driveway 5	20.9	20.9	0.0	5.0	No	Yes	No
49	Old Country Club Road	Project Driveway 5 to Country Club Drive	19.4	19.4	0.0	5.0	No	Yes	No
50	Peridot Drive	North of Green Valley Road	50.7	50.7	0.0	5.0	No	Yes	No
51	Serrano Parkway	North of Bass Lake Road	56.0	56.1	0.1	5.0	No	Yes	No
52	Sienna Ridge Road	South of Bass Lake Road	51.1	51.1	0.0	5.0	No	Yes	No
53	Sienna Ridge Road	East of Bass Lake Road	18.8	18.8	0.0	5.0	No	Yes	No
54	Silva Valley Parkway	North of Tong Road	64.1	64.1	0.1	3.0	No	Yes	No
55	Silva Valley Parkway	Tong Road to US 50 Westbound Ramp	51.2	51.2	0.1	5.0	No	Yes	No
56	Silva Valley Parkway	US 50 Westbound Ramp to US 50 Eastbound Ramp	51.4	51.4	0.1	5.0	No	Yes	No
57	Silver Dove Way	West of Bass Lake Road	26.8	26.8	0.0	5.0	No	Yes	No
58	Silver Springs Parkway	Green Valley Road to Bass Lake Road	53.9	53.9	0.0	5.0	No	Yes	No
59	Tong Road	East of Silva Valley Parkway	24.7	24.7	0.0	5.0	No	Yes	No
60	Trinidad Drive	South of Country Club Drive	46.4	46.4	0.0	5.0	No	Yes	No
61	US 50 Eastbound Ramp	East of Silva Valley Parkway	47.8	47.9	0.1	5.0	No	Yes	No
62	US 50 Eastbound Ramp	East of Bass Lake Road	45.3	45.6	0.4	5.0	No	Yes	No
63	US 50 Westbound Ramp	West of Silva Valley Parkway	48.5	48.5	0.0	5.0	No	Yes	No
64	US 50 Westbound Ramp	West of Bass Lake Road	51.4	51.8	0.3	5.0	No	Yes	No
65	Whistling Way	South of Bass Lake Road	36.6	36.6	0.0	5.0	No	Yes	No
66	White Rock Road	South of US 50 Eastbound Ramp	53.2	53.2	0.0	5.0	No	Yes	No
67	Woodleigh Lane	East of Bass Lake Road	55.3	55.3	0.0	5.0	No	Yes	No

[1] Significance thresholds established in General Plan Policy 6.5.1.12.
[2] Sensitive receptors were considered to be residences of all densities, schools, and transient lodging facilities.
[3] A significant impact is identified only along segments where the project-related traffic noise level increase would exceed the significance threshold and where sensitive receptors are present along the roadway segment.

Source: Bollard Acoustical Consultants, Inc., 2024.

Operational Noise Within the Project Development Area

Operational noise associated with activities within the Project Development Area would consist of on-site vehicle noise, parking area noise, on-site delivery truck circulation and activity noise, HVAC noise, and crowd and amplified noise associated with the Event Center/Museum. The noise generated by the aforementioned components could result in impacts to existing noise-sensitive receptors in the project vicinity. Each of the foregoing noise sources is discussed in further detail below.

On-Site Vehicle Noise

Passenger vehicle access points to the Project Development Area would be located along Bass Lake Road and Country Club Drive. As discussed above, to quantify on-site traffic circulation noise levels at nearby existing residential uses, BAC used the FHWA-RD-77-108 with trip generation data prepared by T. Kear. The Project Development Area was determined to generate 2,110 total daily trips (137 AM peak hours trips, 185 PM peak hour trips). Assuming on-site vehicle speeds of 30 mph, and assuming that worst-case estimated peak hour trips could occur during a busy daytime, evening or nighttime hour, project on-site passenger vehicle circulation noise exposure was calculated for residential receivers 1-9. The results are presented below in Table 4.9-14.

As shown in Table 4.9-14, project on-site passenger vehicle circulation noise exposure is predicted to comply with the applicable El Dorado County daytime, evening, and nighttime hourly L_{eq} and L_{max} exterior noise level standards at residential receivers 1 through 9.

Table 4.9-1 above contains the results from the BAC long-term ambient noise survey at sites 1-4, which are believed to be representative of the existing ambient noise environments at residential receivers 1 through 9. Using the lowest average measured noise levels at each monitoring location during the survey, existing plus project on-site passenger vehicle noise level increases during daytime, evening and nighttime hours were calculated at residential receivers 1 through 9. The calculated increases in ambient noise levels shown in Table 4.9-15 would comply with the applicable increase significance criteria contained in General Plan Policy 6.5.1.13. at residential receivers 1 through 9.

Because noise exposure from Project Development Area on-site passenger vehicle circulation would comply with applicable El Dorado County exterior noise level standards at the nearest existing residential uses (residential receivers 1 through 9), and because noise exposure from such activities would not increase ambient noise levels to above applicable County increase significance criteria, the impact would be less than significant.

Parking Area Noise

As discussed above, BAC used specific parking lot noise level measurements to determine potential noise exposure due to commercial lot activities. Using the information provided above in the Methods of Analysis section, as well as a standard spherical spreading loss of 6.0 dB per doubling of distance, parking area noise exposure at residential receivers 1-9 was calculated. The results are presented in Table 4.9-16.

Table 4.9-14
Predicted On-Site Vehicle Circulation Noise Levels at Residential Uses (L_{eq} and L_{max})

Receiver[1]	Predicted Noise Level, L_{eq} (dB)[2]	Applied County Standard, L_{eq} (dB)[3]			Predicted Noise Level, L_{max} (dB)[4]	Applied County Standard, L_{max} (dB)[3]		
		Daytime	Evening	Nighttime		Daytime	Evening	Nighttime
1	37	55	50	45	47	70	60	55
2	32	55	50	45	42	70	60	55
3	33	55	50	45	43	70	60	55
4	32	55	50	45	42	70	60	55
5	30	55	50	45	40	70	60	55
6	32	50	45	40	42	60	55	50
7	37	50	45	40	47	60	55	50
8	31	50	45	40	41	60	55	50
9	36	50	45	40	46	60	55	50

[1] Residential receiver locations are shown in Figure 4.9-2.
[2] Predicted worst-case peak hour noise level (L_{eq}) from on-site passenger vehicle circulation route of nearest proposed component.
[3] Applicable County exterior noise levels standards for "Community" and "Rural" areas as assigned.
[4] Highest predicted noise level from on-site passenger vehicle circulation route of nearest proposed component.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-15
Increases in Ambient Noise Levels at Residential Uses – On-Site Vehicle Circulation (L_{eq} and L_{max})

Receiver	Increase in Ambient Noise Level, L_{eq} (dB)			Applied General Plan Increase Significance Criterion, L_{eq} (dB)			Increase in Ambient Noise Level, L_{max} (dB)			Applied General Plan Increase Significance Criterion, L_{max} (dB)		
	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	0.5	0.6	1.4	5.0	5.0	5.0	0.3	0.3	1.1	5.0	5.0	3.0
2	0.2	0.2	0.5	5.0	5.0	5.0	0.1	0.1	0.4	5.0	5.0	3.0
3	0.2	0.3	0.6	5.0	5.0	5.0	0.1	0.1	0.5	5.0	5.0	3.0
4	0.1	0.1	0.1	5.0	5.0	3.0	0.0	0.0	0.1	5.0	3.0	3.0
5	<0.1	<0.1	0.1	5.0	5.0	3.0	0.0	0.0	0.0	5.0	3.0	3.0
6	<0.1	<0.1	0.1	3.0	3.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0
7	0.1	0.1	0.2	3.0	3.0	3.0	0.1	0.1	0.1	3.0	3.0	3.0
8	<0.1	<0.1	<0.1	3.0	3.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0
9	<0.1	<0.1	<0.1	3.0	3.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-16
Predicted Parking Area Noise Levels at Residential Uses (L_{eq} and L_{max})

Receiver[1]	Predicted Noise Level, L_{eq} (dB)[2]	Applied County Standard, L_{eq} (dB)[3]			Predicted Noise Level, L_{max} (dB)[4]	Applied County Standard, L_{max}(dB)[3]		
		Daytime	Evening	Nighttime		Daytime	Evening	Nighttime
1	32	55	50	45	44	70	60	55
2	31	55	50	45	50	70	60	55
3	27	55	50	45	44	70	60	55
4	26	55	50	45	43	70	60	55
5	25	55	50	45	42	70	60	55
6	28	50	45	40	44	60	55	50
7	35	50	45	40	48	60	55	50
8	27	50	45	40	40	60	55	50
9	32	50	45	40	45	60	55	50

[1] Residential receiver locations are shown in Figure 4.9-2.
[2] Predicted combined hourly average noise level from parking areas.
[3] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.
[4] Predicted highest maximum noise level from parking areas.

Source: Bollard Acoustical Consultants, Inc., 2024.

As shown in Table 4.9-16, project parking area noise exposure would comply with the applicable El Dorado County daytime, evening, and nighttime hourly L_{eq} and L_{max} exterior noise level standards at residential receivers 1-9.

Using the lowest average measured noise levels at each monitoring location during the survey, ambient plus project parking area noise level increases during daytime, evening and nighttime hours were calculated at residential receivers 1-9. The results are presented in Table 4.9-17.

The calculated increases in ambient noise levels shown in Table 4.9-17 would comply with the applicable increase significance criteria contained in General Plan Policy 6.5.1.13. Because noise exposure from Project Development Area parking area movements would satisfy applicable El Dorado County exterior noise level standards at the nearest existing residential uses (receivers 1-9), and because noise exposure from parking lot activities would not significantly increase ambient noise levels at those uses relative to applicable County increase significance criteria, the impact would be less than significant.

On-Site Delivery Truck Circulation

Based on the hourly delivery truck assumptions above in the Methods of Analysis section, and SEL's of 83 and 76 dB per passby, the combined hourly average noise level generated by project on-site delivery truck circulation would be 51 dB L_{eq} at a reference distance of 50 feet from the passby route during the worst-case hour of deliveries, or 74 dB L_{max}. Assuming a standard spherical spreading loss of 6.0 dB per doubling of distance, on-site delivery truck circulation noise exposure at residential receivers 1-9 was calculated. The results are presented below in Table 4.9-18.

As shown in Table 4.9-18, project on-site truck circulation noise exposure is predicted to comply with the applicable El Dorado County daytime, evening, and nighttime hourly L_{eq} exterior noise level standards at residential receivers 1-9. However, project on-site delivery truck circulation noise exposure is predicted to exceed the applicable El Dorado County nighttime L_{max} exterior noise level standard at residential receiver 7.

Using the lowest average measured noise levels at each monitoring location during the survey, ambient plus project on-site truck circulation noise level increases during daytime, evening and nighttime hours were calculated at residential receivers 1-9. The results of those calculations are presented in Table 4.9-19.

The calculated increases in ambient noise levels shown in Table 4.9-19 would comply with the applicable increase significance criteria contained in General Plan Policy 6.5.1.13. Because noise exposure from Project Development Area on-site delivery truck circulation would exceed the applicable El Dorado County nighttime L_{max} exterior noise level standard at residential receiver 7, the impact is potentially significant.

On-Site Delivery Truck Activity

The Event Center/Museum and Hotel components of the Project Development Area are anticipated to receive deliveries of product from medium-duty vendor trucks/vans and heavy trucks.

Table 4.9-17
Increases in Ambient Noise Levels at Residential Uses – Parking Area Activities (L_{eq} and L_{max})

Receiver	Increase in Ambient Noise Level, L_{eq} (dB)			Applied General Plan Increase Significance Criterion, L_{eq} (dB)			Increase in Ambient Noise Level, L_{max} (dB)			Applied General Plan Increase Significance Criterion, L_{max} (dB)		
	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	0.2	0.2	0.5	5.0	5.0	5.0	0.1	0.2	0.7	5.0	5.0	3.0
2	0.1	0.2	0.4	5.0	5.0	5.0	0.5	0.6	2.0	5.0	5.0	3.0
3	0.1	0.1	0.2	5.0	5.0	5.0	0.1	0.2	0.7	5.0	5.0	3.0
4	<0.1	<0.1	<0.1	5.0	5.0	3.0	<0.1	<0.1	0.1	5.0	3.0	3.0
5	<0.1	<0.1	<0.1	5.0	5.0	3.0	<0.1	<0.1	0.1	5.0	3.0	3.0
6	<0.1	<0.1	<0.1	3.0	3.0	3.0	<0.1	<0.1	0,1	3.0	3.0	3.0
7	0.1	0.1	0.1	3.0	3.0	3.0	0.1	0.1	0.1	3.0	3.0	3.0
8	<0.1	<0.1	<0.1	3.0	3.0	3.0	<0.1	<0.1	<0.1	3.0	3.0	3.0
9	<0.1	<0.1	<0.1	3.0	3.0	3.0	<0.1	<0.1	<0.1	3.0	3.0	3.0

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-18
Predicted On-Site Truck Circulation Noise Levels at Residential Uses (L_{eq} and L_{max})

Receiver[1]	Predicted Noise Level, L_{eq} (dB)[2]	Applied County Standard, L_{eq} (dB)[3]			Predicted Noise Level, L_{max} (dB)[4]	Applied County Standard, L_{max}(dB)[3]		
		Daytime	Evening	Nighttime		Daytime	Evening	Nighttime
1	28	55	50	45	51	70	60	55
2	23	55	50	45	46	70	60	55
3	22	55	50	45	45	70	60	55
4	21	55	50	45	44	70	60	55
5	<20	55	50	45	42	70	60	55
6	22	50	45	40	45	60	55	50
7	31	50	45	40	**54**	60	55	**50**
8	21	50	45	40	44	60	55	50
9	27	50	45	40	49	60	55	50

[1] Residential receiver locations are shown in Figure 4.9-2.
[2] Predicted combined hourly average noise level from nearest on-site truck circulation route.
[3] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.
[4] Predicted maximum noise level from nearest on-site truck circulation route.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-19
Increases in Ambient Noise Levels at Residential Uses– On-Site Truck Circulation (L_{eq} and L_{max})

Receiver	Increase in Ambient Noise Level, L_{eq} (dB)			Applied General Plan Increase Significance Criterion, L_{eq} (dB)			Increase in Ambient Noise Level, L_{max} (dB)			Applied General Plan Increase Significance Criterion, L_{max} (dB)		
	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	0.6	0.8	0.2	5.0	5.0	5.0	0.6	0.8	2.6	5.0	5.0	3.0
2	0.2	0.2	0.1	5.0	5.0	5.0	0.2	0.2	0.9	5.0	5.0	3.0
3	0.2	0.2	0.1	5.0	5.0	5.0	0.2	0.2	0.8	5.0	5.0	3.0
4	<0.1	<0.1	<0.1	5.0	5.0	3.0	<0.1	<0.1	0.1	5.0	3.0	3.0
5	<0.1	<0.1	<0.1	5.0	5.0	3.0	<0.1	<0.1	0.1	5.0	3.0	3.0
6	0.1	<0.1	<0.1	3.0	3.0	3.0	0.1	<0.1	0.1	3.0	3.0	3.0
7	0.4	0.3	<0.1	3.0	3.0	3.0	0.4	0.3	0.5	3.0	3.0	3.0
8	<0.1	<0.1	<0.1	3.0	3.0	3.0	<0.1	<0.1	<0.1	3.0	3.0	3.0
9	<0.1	<0.1	<0.1	3.0	3.0	3.0	<0.1	<0.1	<0.1	3.0	3.0	3.0

Source: Bollard Acoustical Consultants, Inc., 2024.

The primary noise sources associated with delivery activities are trucks stopping (air brakes), trucks backing into position (back-up alarms), and pulling away from the unloading area (revving engines). Based on the hourly delivery trucks assumptions above in the Methods of Analysis section, and an SEL of 83 dB, the hourly average noise level would be 53 dB L_{eq} at a reference distance of 100 feet during the worst-case hour of deliveries, and 65 dB L_{max}. Assuming a standard spherical spreading loss of 6.0 dB per doubling of distance, project truck delivery activity noise exposure at residential receivers 1-9 was calculated. The results are presented below in Table 4.9-20.

Table 4.9-20 indicates that project truck delivery activity noise exposure would comply with the applicable El Dorado County daytime, evening, and nighttime hourly L_{eq} and L_{max} exterior noise level standards at residential receivers 1-9.

Using the lowest average measured noise levels at each monitoring location during the survey, ambient plus project truck delivery activity noise level increases during daytime, evening and nighttime hours were calculated at residential receivers 1-9. The results are presented in Table 4.9-21.

The calculated increases in ambient noise levels shown in Table 4.9-21 would comply with the applicable increase significance criteria contained in General Plan Policy 6.5.1.13. Because noise exposure from Project Development Area truck delivery activities would satisfy applicable El Dorado County exterior noise level standards at the nearest existing residential uses (receivers 1-9), and because noise exposure from on-site delivery truck activities would not significantly increase ambient noise levels at the receivers relative to applicable County increase significance criteria, the impact is less than significant.

HVAC Equipment

The HVAC requirements for the proposed Event Center/Museum and Hotel component buildings would most likely be met using packaged roof-mounted systems and/or condensers. The HVAC requirements for the Residential Cottages component of the project would likely be met with ground level equipment (condensers) installed adjacent to the structures. Based on the mechanical equipment assumptions and sound power data discussed above in the Methods of Analysis section, and assuming a standard spherical spreading loss of 6.0 dB per doubling of distance, HVAC equipment noise exposure at residential receivers 1-9 was calculated. The results are presented in Table 4.9-22. Because mechanical equipment operation typically generates sustained, steady-state noise levels, impacts of project mechanical equipment are appropriately assessed relative only to the County's hourly L_{eq} noise level criteria.

As shown in Table 4.9-22, HVAC equipment noise exposure would comply with the applicable El Dorado County daytime, evening, and nighttime hourly L_{eq} exterior noise level standards at residential receivers 1-9.

Table 4.9-20
Predicted Truck Delivery Activity Noise Levels at Residential Uses (L_{eq} and L_{max})

Receiver[1]	Predicted Noise Level, L_{eq} (dB)[2]	Applied County Standard, L_{eq} (dB)[3]			Predicted Noise Level, L_{max} (dB)[4]	Applied County Standard, L_{max}(dB)[3]		
		Daytime	Evening	Nighttime		Daytime	Evening	Nighttime
1	33	55	50	45	44	70	60	55
2	29	55	50	45	40	70	60	55
3	26	55	50	45	38	70	60	55
4	26	55	50	45	37	70	60	55
5	26	55	50	45	37	70	60	55
6	29	50	45	40	40	60	55	50
7	37	50	45	40	49	60	55	50
8	29	50	45	40	41	60	55	50
9	32	50	45	40	43	60	55	50

[1] Residential receiver locations are shown in Figure 4.9-2.
[2] Predicted combined hourly average noise level from nearest delivery area (assumed to be areas immediately adjacent to hotel or event center buildings).
[3] Applicable County exterior noise levels standards for "Community" and "Rural" areas as assigned.
[4] Predicted maximum noise level from nearest delivery area (assumed to be areas immediately adjacent to hotel or event center buildings).

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-21
Increases in Ambient Noise Levels at Residential Uses– Truck Delivery Activity (L_{eq} and L_{max})

Receiver	Increase in Ambient Noise Level, L_{eq} (dB)			Applied General Plan Increase Significance Criterion, L_{eq} (dB)			Increase in Ambient Noise Level, L_{max} (dB)			Applied General Plan Increase Significance Criterion, L_{max} (dB)		
	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	0.2	0.2	0.6	5.0	5.0	5.0	0.1	0.2	0.7	5.0	5.0	3.0
2	0.1	0.1	0.3	5.0	5.0	5.0	0.1	0.1	0.3	5.0	5.0	3.0
3	<0.	0.1	0,1	5.0	5.0	5.0	<0.1	<0.1	0.2	5.0	5.0	3.0
4	<0.1	<0.1	<0.1	5.0	5.0	3.0	<0.1	<0.1	<0.1	5.0	3.0	3.0
5	<0.1	<0.1	<0.1	5.0	5.0	3.0	<0.1	<0.1	<0.1	5.0	3.0	3.0
6	<0.1	<0.1	<0.1	3.0	3.0	3.0	<0.1	<0.1	<0.1	3.0	3.0	3.0
7	0.1	0.1	0.2	3.0	3.0	3.0	0.1	0.1	0.2	3.0	3.0	3.0
8	<0.1	<0.1	<0.1	3.0	3.0	3.0	<0.1	<0.1	<0.1	3.0	3.0	3.0
9	<0.1	<0.1	<0.1	3.0	3.0	3.0	,0.1	<0.1	<0.1	3.0	3.0	3.0

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-22
Predicted HVAC Equipment Noise Levels at Residential Uses

Receiver[1]	Predicted Noise Level, L_{eq} (dB)[2]	Applied County Standard, L_{eq} (dB)[3]		
		Daytime	Evening	Nighttime
1	32	55	50	45
2	29	55	50	45
3	26	55	50	45
4	25	55	50	45
5	24	55	50	45
6	27	50	45	40
7	33	50	45	40
8	27	50	45	40
9	30	50	45	40

[1] Residential receiver locations are shown in Figure 4.9-2.
[2] Predicted combined hourly average noise level from nearest Event Center/Museum or Hotel building (five roof-mounted 12.5-ton HVAC units and 50 roof-mounted condenser units) and closest 10 Cottages (10 residential condenser units).
[3] Applicable County exterior noise levels standards for "Community" and "Rural" areas as assigned.

Source: Bollard Acoustical Consultants, Inc., 2024.

Using the lowest average measured noise levels at each monitoring location during the survey, ambient plus HVAC equipment noise level increases during daytime, evening and nighttime hours were calculated at residential receivers 1-9. The results are presented in Table 4.9-23.

Table 4.9-23
Increases in Ambient Noise Levels at Residential Uses – HVAC Equipment

Receiver	Increase in Ambient Noise Level, L_{eq} (dB)			Applied General Plan Increase Significance Criterion, L_{eq} (dB)		
	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	0.2	0.2	0.5	5.0	5.0	5.0
2	0.1	0.2	0.2	5.0	5.0	5.0
3	<0.1	<0.1	0.1	5.0	5.0	5.0
4	<0.1	<0.1	<0.1	5.0	5.0	3.0
5	<0.1	<0.1	<0.1	5.0	5.0	3.0
6	<0.1	<0.1	<0.1	3.0	3.0	3.0
7	<0.1	0.1	0.1	3.0	3.0	3.0
8	<0.1	<0.1	<0.1	3.0	3.0	3.0
9	<0.1	<0.1	<0.1	3.0	3.0	3.0

Source: Bollard Acoustical Consultants, Inc., 2024.

The calculated increases in ambient noise levels shown in Table 4.9-23 would comply with the applicable increase significance criteria contained in General Plan Policy 6.5.1.13. Because noise exposure from Project Development Area HVAC equipment would satisfy applicable El Dorado County exterior noise level standards at the nearest existing residential uses (receivers 1-9), and because noise exposure from those operations would not significantly increase ambient noise levels at the receivers

relative to applicable County increase significance criteria, the impact is less than significant.

Event Center/Museum Crowd Noise

The second floor of the Event Center/Museum building would include a south-facing large outdoor balcony intended for weddings, receptions, conferences and family gatherings. The north side of the second floor would provide access to the oak grove terraces, where dining and outdoor music events would occur. The Event Center would operate one to two days per week from 8:00 AM to 12:00 AM with a maximum capacity of 300 persons. Using the BAC file data and assumptions discussed above in the Methods of Analysis section, and assuming a standard spherical spreading loss of 6.0 dB per doubling of distance, noise from the nearest proposed outdoor event area to residential receivers 1-9 was calculated. As shown above in Table 4.9-5, the County's noise level limits shall be downward adjusted by 5.0 dB for noises consisting primarily of speech or music, which would apply to project event crowd noise.

As shown in Table 4.9-24, project event crowd noise exposure would exceed the applicable downward adjusted El Dorado County daytime, evening and nighttime L_{max} exterior noise level standards at a portion of the closest residential receivers.

Using the lowest average measured noise levels at each monitoring location during the survey, ambient plus project outdoor event crowd noise level increases during daytime, evening and nighttime hours were calculated at residential receivers 1-9. The results are presented above in Table 4.9-25.

The calculated increases in ambient noise levels shown in Table 4.9-25 would comply with the applicable increase significance criteria contained in General Plan Policy 6.5.1.13. However, because noise exposure from Project Development Area outdoor event crowds would exceed the applicable El Dorado County L_{max} exterior noise level standards at seven of the closest residential receivers, the impact is potentially significant.

Event Center/Museum Amplified Music and Speech Noise

Based on the Event Center operational information discussed above, amplified music/speech is expected to be played within the two outdoor event areas (Event Center outdoor balcony and oak terrace areas). Because specific information regarding the type of music events within the outdoor oak terrace areas are currently unknown, for the purpose of this analysis, the reference sound level data for a wedding reception sound system was used to quantify outdoor event amplified music/speech within the oak terrace areas. Using the BAC file data and assumptions discussed above in the Methods of Analysis section, and assuming a standard spherical spreading loss of 6.0 dB per doubling of distance, noise from the nearest proposed outdoor event areas to residential receivers 1-9 was calculated. The results are presented in Table 4.9-26.

Table 4.9-24
Predicted Outdoor Event Crowd Noise Levels at Residential Uses (L_{eq} and L_{max})

Receiver[1]	Predicted Noise Level, L_{eq} (dB)[2,3]	Applied County Standard, L_{eq} (dB)[4]			Predicted Noise Level, L_{max} (dB)[3,5]	Applied County Standard, L_{max}(dB)[4]		
		Daytime	Evening	Nighttime		Daytime	Evening	Nighttime
1	35	50	45	40	**57**	65	**55**	**50**
2	31	50	45	40	**53**	65	55	**50**
3	29	50	45	40	**51**	65	55	**50**
4	28	50	45	40	50	65	55	50
5	28	50	45	40	50	65	55	50
6	31	45	40	35	**53**	55	**50**	**45**
7	32	45	40	35	**54**	55	**50**	**45**
8	32	45	40	35	**54**	55	**50**	**45**
9	35	45	40	35	**57**	**55**	**50**	**45**

[1] Residential receiver locations are shown in Figure 4.9-2.
[2] Predicted hourly average crowd noise level from nearest proposed outdoor event area.
[3] Predicted noise levels include negative offsets ranging from -5.0 dB to -10 dB where screening would be present.
[4] Applicable County exterior noise levels standards for "Community" and "Rural" areas as assigned (adjusted).
[5] Predicted maximum crowd noise level from nearest proposed outdoor event area.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-25
Increases in Ambient Noise Levels at Residential Uses– Outdoor Event Crowd (L_{eq} and L_{max})

Receiver	Increase in Ambient Noise Level, L_{eq} (dB)			Applied General Plan Increase Significance Criterion, L_{eq} (dB)			Increase in Ambient Noise Level, L_{max} (dB)			Applied General Plan Increase Significance Criterion, L_{max} (dB)		
	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	0.1	0.1	0.3	5.0	5.0	5.0	0.7	0.9	2.8	5.0	5.0	3.0
2	<0.1	<0.1	<0.1	5.0	5.0	5.0	0.1	0.1	0.5	5.0	5.0	3.0
3	<0.1	<0.1	<0.1	5.0	5.0	5.0	0.1	0.1	0.3	5.0	5.0	3.0
4	<0.1	<0.1	<0.1	5.0	5.0	3.0	<0.1	<0.1	<0.1	5.0	3.0	3.0
5	<0.1	<0.1	<0.1	5.0	5.0	3.0	<0.1	<0.1	<0.1	5.0	3.0	3.0
6	<0.1	<0.1	<0.1	3.0	3.0	3.0	0.2	0.1	0.2	3.0	3.0	3.0
7	0.1	0.1	0.2	3.0	3.0	3.0	1.1	0.8	1.4	3.0	3.0	3.0
8	<0.1	<0.1	<0.1	3.0	3.0	3.0	<0.1	<0.1	0.1	3.0	3.0	3.0
9	<0.1	<0.1	<0.1	3.0	3.0	3.0	0.1	0.1	0.2	3.0	3.0	3.0

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-26
Predicted Outdoor Amplified Music/Speech Noise Levels at Residential Uses (L_{eq} and L_{max})

Receiver[1]	Predicted Noise Level, L_{eq} (dB)[2,3]	Applied County Standard, L_{eq} (dB)[4]			Predicted Noise Level, L_{max} (dB)[3,5]	Applied County Standard, L_{max}(dB)[4]		
		Daytime	Evening	Nighttime		Daytime	Evening	Nighttime
1	**47**	50	**45**	**40**	**52**	65	55	**50**
2	38	50	45	40	43	65	55	50
3	36	50	45	40	41	65	55	50
4	35	50	45	40	40	65	55	50
5	35	50	45	40	40	65	55	50
6	**43**	45	**40**	**35**	**48**	55	50	**45**
7	**54**	**45**	**40**	**35**	**59**	**55**	**50**	**45**
8	**49**	**45**	**40**	**35**	**54**	55	**50**	**45**
9	**52**	**45**	**40**	**35**	**57**	**55**	**50**	**45**

[1] Residential receiver locations are shown in Figure 4.9-2.
[2] Predicted hourly average crowd noise level from nearest proposed outdoor event area (reference: 80 dB L_{eq} at 50 feet).
[3] Predicted noise levels include negative offsets ranging from -5.0 dB to -10 dB where screening would be present.
[4] Applicable County exterior noise levels standards for "Community" and "Rural" areas as assigned (adjusted).
[5] Predicted maximum crowd noise level from nearest proposed outdoor event area (reference: 85 dB L_{max} at 50 feet).
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 6-2 of the El Dorado County General Plan (see Table 4.9-5) states that the County's noise level limits shall be downward adjusted by 5.0 dB for noises consisting primarily of speech or music, which would apply to project event crowd noise. As shown in Table 4.9-26, project outdoor event amplified music/speech noise exposure would exceed the applicable downward adjusted El Dorado County daytime, evening, and nighttime hourly L_{eq} and L_{max} exterior noise level standards at a portion of the closest residential receivers.

Using the lowest average measured noise levels at each monitoring location during the survey, ambient plus project outdoor event amplified music/speech noise level increases during daytime, evening and nighttime hours were calculated at residential receivers 1-9. The results are presented in Table 4.9-27.

As shown in Table 4.9-27, ambient L_{eq} noise levels would exceed the applicable increase significance criteria, pursuant to El Dorado County General Plan Policy 6.5.1.13, at one of the residential receivers (7) during evening, and two of the residential receivers (1 and 7) during nighttime. Because noise exposure from Project Development Area outdoor event amplified music/speech would exceed the applicable El Dorado County daytime, evening and nighttime hourly L_{eq} and L_{max} exterior noise level standards at five of the nearest residential receivers, and because increases in ambient evening and nighttime noise levels would exceed applicable General Plan increase significance criteria at two of the residential receivers, the impact is potentially significant.

Combined Operational Noise

The calculated combined hourly L_{eq} and highest predicted L_{max} noise levels from analyzed Project Development Area noise sources at residential receivers 1-9 is presented in Table 4.9-28 through Table 4.9-33. It should be noted that due to the logarithmic nature of the decibel scale, the sum of two noise values which differ by 10 dB equates to an overall increase in noise levels of 0.4 dB. When the noise sources are equivalent, the sum would result in an overall increase in noise levels of 3.0 dB.

As shown in Table 4.9-28 through Table 4.9-30, combined (and highest predicted) noise levels from Project Development Area on-site operations would exceed applicable El Dorado County General Plan hourly L_{eq} exterior noise level standards at residential receivers 7 and 9 during daytime hours, residential receivers 7, 8, and 9 during evening hours, and residential receivers 1, 6, 7, 8, and 9 during nighttime hours. As shown in Table 4.9-31 through Table 4.9-33, combined (and highest predicted) noise levels from Project Development Area on-site operations would exceed applicable El Dorado County General Plan hourly L_{max} exterior noise level standards would be exceeded at residential receivers 7 and 9 during evening hours, and at residential receivers 7, 8, and 9 during nighttime hours.

Using the lowest average measured noise levels at each monitoring location during the survey, ambient plus combined project noise level increases during daytime, evening and nighttime hours were calculated at residential receivers 1-9. The results are presented in Table 4.9-34, which shows that combined increases in ambient hourly L_{eq} noise levels from Project Development Area on-site operations would exceed applicable General Plan Policy 6.5.1.13 daytime and evening hourly L_{eq} at residential receiver 7, and nighttime hourly L_{eq} at residential receivers 1 and 7.

Table 4.9-27
Increases in Ambient Noise Levels at Residential Uses– Outdoor Event Amplified Music/Speech (L_{eq} and L_{max})

Receiver	Increase in Ambient Noise Level, L_{eq} (dB)			Applied General Plan Increase Significance Criterion, L_{eq} (dB)			Increase in Ambient Noise Level, L_{max} (dB)			Applied General Plan Increase Significance Criterion, L_{max} (dB)		
	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	3.4	3.9	**6.7**	5.0	5.0	**5.0**	0.7	0.9	2.9	5.0	5.0	3.0
2	0.6	0.8	1.8	5.0	5.0	5.0	0.1	0.1	0.5	5.0	5.0	3.0
3	0.4	0.5	1.2	5.0	5.0	5.0	0.1	0.1	0.3	5.0	5.0	3.0
4	0.1	0.1	0.3	5.0	5.0	3.0	0.0	0.0	0.0	5.0	3.0	3.0
5	0.1	0.1	0.3	5.0	5.0	3.0	0.0	0.0	0.0	5.0	3.0	3.0
6	0.3	0.5	0.6	3.0	3.0	3.0	0.1	0.1	0.1	3.0	3.0	3.0
7	3.0	**4.1**	**4.8**	3.0	**3.0**	**3.0**	1.2	0.8	1.4	3.0	3.0	3.0
8	0.3	0.6	0.9	3.0	3.0	3.0	0.0	0.0	0.1	3.0	3.0	3.0
9	0.6	1.1	1.6	3.0	3.0	3.0	0.1	0.1	0.2	3.0	3.0	3.0

Red: Exceedance of El Dorado County increase significance criteria.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-28
Combined Operational Noise Levels at Residential Uses– Daytime Hourly L_{eq}

Receiver	Predicted Noise Levels, L_{eq} (dB)							Combined, L_{eq} (dB)	Applied County Daytime Standard, L_{eq} (dB)[1]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment	Event Center Crowd	Event Center Amplified Music/Speech		
1	37	32	28	33	32	30	47	48	55
2	32	31	23	29	28	21	38	40	55
3	33	27	22	26	26	19	36	39	55
4	32	26	21	26	25	18	35	38	55
5	30	25	19	26	24	18	35	37	55
6	32	28	22	29	27	28	43	44	50
7	37	35	31	37	33	37	54	**54**	**50**
8	31	27	21	29	27	32	49	50	50
9	36	32	27	32	30	35	52	**53**	**50**

[1] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-29
Combined Operational Noise Levels at Residential Uses– Evening Hourly L_{eq}

Receiver	Predicted Noise Levels, L_{eq} (dB)							Combined, L_{eq} (dB)	Applied County Daytime Standard, L_{eq} (dB)[1]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment	Event Center Crowd	Event Center Amplified Music/Speech		
1	37	32	28	33	32	30	47	48	50
2	32	31	23	29	28	21	38	40	50
3	33	27	22	26	26	19	36	39	50
4	32	26	21	26	25	18	35	38	50
5	30	25	19	26	24	18	35	37	50
6	32	28	22	29	27	28	43	44	45
7	37	35	31	37	33	37	54	**54**	**45**
8	31	27	21	29	27	32	49	**50**	**45**
9	36	32	27	32	30	35	52	**53**	**45**

[1] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-30
Combined Operational Noise Levels at Residential Uses– Nighttime Hourly L_{eq}

Receiver	Predicted Noise Levels, L_{eq} (dB)							Combined, L_{eq} (dB)	Applied County Daytime Standard, L_{eq} (dB)[1]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment	Event Center Crowd	Event Center Amplified Music/Speech		
1	37	32	28	33	32	30	47	**48**	**45**
2	32	31	23	29	28	21	38	40	45
3	33	27	22	26	26	19	36	39	45
4	32	26	21	26	25	18	35	38	45
5	30	25	19	26	24	18	35	37	45
6	32	28	22	29	27	28	43	**44**	**40**
7	37	35	31	37	33	37	54	**54**	**40**
8	31	27	21	29	27	32	49	**50**	**40**
9	36	32	27	32	30	35	52	**53**	**40**

[1] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-31
Combined Operational Noise Levels at Residential Uses– Daytime Maximum L_{max}

Receiver	Predicted Noise Levels, L_{eq} (dB)							Highest Predicted, L_{max} (dB)	Applied County Daytime Standard, L_{max} (dB)[1]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment	Event Center Crowd	Event Center Amplified Music/Speech		
1	47	44	51	44	--	52	52	52	70
2	42	50	46	40	--	43	43	50	70
3	43	44	45	38	--	41	41	45	70
4	42	43	44	37	--	40	40	44	70
5	40	42	42	37	--	40	40	42	70
6	42	44	45	40	--	50	50	50	60
7	47	48	54	49	--	59	59	59	60
8	41	40	44	41	--	54	54	54	60
9	46	45	49	43	--	57	57	57	60

[1] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-32
Combined Operational Noise Levels at Residential Uses– Evening Maximum L_{max}

Receiver	Predicted Noise Levels, L_{eq} (dB)							Highest Predicted, L_{max} (dB)	Applied County Daytime Standard, L_{max} (dB)[1]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment	Event Center Crowd	Event Center Amplified Music/Speech		
1	47	44	51	44	--	52	52	52	60
2	42	50	46	40	--	43	43	50	60
3	43	44	45	38	--	41	41	45	60
4	42	43	44	37	--	40	40	44	60
5	40	42	42	37	--	40	40	42	60
6	42	44	45	40	--	50	48	50	55
7	47	48	54	49	--	59	59	**59**	**55**
8	41	40	44	41	--	54	54	54	55
9	46	45	49	43	--	57	57	**57**	**55**

[1] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-33
Combined Operational Noise Levels at Residential Uses– Nighttime Maximum L_{max}

Receiver	Predicted Noise Levels, L_{eq} (dB)							Highest Predicted, L_{max} (dB)	Applied County Daytime Standard, L_{max} (dB)[1]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment	Event Center Crowd	Event Center Amplified Music/Speech		
1	47	44	51	44	--	52	52	52	55
2	42	50	46	40	--	43	43	50	55
3	43	44	45	38	--	41	41	45	55
4	42	43	44	37	--	40	40	44	55
5	40	42	42	37	--	40	40	42	55
6	42	44	45	40	--	50	48	50	50
7	47	48	54	49	--	59	59	**59**	**50**
8	41	40	44	41	--	54	54	**54**	**50**
9	46	45	49	43	--	57	57	**57**	**50**

[1] Applicable County exterior noise levels standards for "Community" and "Rural" areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-34
Increases in Ambient Noise Levels at Residential Uses– Combined Operations (L_{eq} and L_{max})

Receiver	Increase in Ambient Noise Level, L_{eq} (dB)			Applied General Plan Increase Significance Criterion, L_{eq} (dB)			Increase in Ambient Noise Level, L_{max} (dB)			Applied General Plan Increase Significance Criterion, L_{max} (dB)		
	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	3.9	4.5	**7.5**	5.0	5.0	**5.0**	0.7	0.9	2.9	5.0	5.0	3.0
2	1.0	1.3	2.7	5.0	5.0	5.0	0.5	0.6	2.0	5.0	5.0	3.0
3	0.7	0.9	2.0	5.0	5.0	5.0	0.2	0.2	0.8	5.0	5.0	3.0
4	0.2	0.3	0.5	5.0	5.0	3.0	0.0	0.0	0.1	5.0	3.0	3.0
5	0.2	0.2	0.4	5.0	5.0	3.0	0.0	0.0	0.1	5.0	3.0	3.0
6	0.4	0.6	0.8	3.0	3.0	3.0	0.2	0.1	0.2	3.0	3.0	3.0
7	**3.2**	**4.3**	**5.0**	**3.0**	**3.0**	**3.0**	1.2	0.8	1.4	3.0	3.0	3.0
8	0.3	0.6	0.9	3.0	3.0	3.0	0.0	0.0	0.1	3.0	3.0	3.0
9	0.6	1.1	1.1	3.0	3.0	3.0	0.1	0.1	0.2	3.0	3.0	3.0

Red: Exceedance of El Dorado County increase significance criteria.

Source: Bollard Acoustical Consultants, Inc., 2024.

Mitigation Measure(s)

Implementation of Mitigation Measure 4.9-2(a) would prohibit on-site truck circulation within the project site during nighttime hours (10:00 PM to 7:00 AM), which would reduce nighttime L_{max} noise levels at residential receiver 7 to below applicable El Dorado County General Plan standards shown in Table 4.9-5. In addition, implementation of Mitigation Measure 4.9-2(b) would reduce Event Center/Museum crowd and amplified music and speech L_{max} noise levels at residential receivers 1, 2, 3, 6, 7, 8, and 9 to below applicable El Dorado County General Plan standards shown in Table 4.9-5.

With respect to the proposed project's combined operational noise impacts, implementation of Mitigation Measures 4.9-2(a) and 4.9-2(b) would similarly reduce increases in daytime, evening, and nighttime noise levels below General Plan numerical thresholds (e.g., Table 4.9-5), as well as ambient noise thresholds in General Plan Policy 6.5.1.13. Thus, with implementation of Mitigation Measures 4.9-2(a) and 4.9-2(b), operational noise associated with the Project Development Area would be reduced to a *less-than-significant* level.

Noise levels at residential receivers following implementation of mitigation are presented within Tables 53 through 56 of the Noise Assessment prepared for the proposed project (see Appendix O).

Project Development Area

4.9-2(a) *All on-site truck circulation at the project site shall be prohibited during nighttime hours (10:00 PM to 7:00 AM). The applicant shall include language prohibiting nighttime deliveries in all vendor contracts associated with the proposed project. The language shall be reviewed and approved by the El Dorado County Planning and Building Department prior to Improvement Plan approval.*

4.9-2(b) *In conjunction with the submittal of Improvement Plans and/or issuance of Building Permits, the project applicant shall include design and operational measures to ensure Event Center/Museum noise complies with the applicable noise standards. Available design and operational measures to ensure Event Center/Museum noise are in compliance could include, but not necessarily be limited to, the following:*

- ***Noise Barriers:*** *The placement of permanent or temporary noise barriers would be an effective method to reduce event crowd and outdoor event amplified music noise at nearby residential receivers. The degree of effectiveness of noise barriers is dependent upon location, height and final elevation relative to nearby receivers, and shall be assessed using construction drawings.*
- ***Shielding/Setbacks:*** *A site design that integrates shielding and/or setbacks from the outdoor event area could be an effective method to reduce event crowd and outdoor event amplified music noise at nearby residential receivers. The effectiveness would depend on degree of shielding and/or*

setback distances relative to nearby receivers, and shall be assessed using construction drawings.

- ***Event Sound System Configurations:*** *The loudness of a sound system is highly variable upon volume level, speaker placement, and speaker orientation/directionality relative to receivers. Implementation of a sound system loudness restriction (i.e., 70 dB at 50 feet), required speaker placement (i.e., setbacks/screening) and speaker facing would be effective measures to reduce outdoor event amplified music levels at nearby receivers.*
- ***Outdoor Event Restrictions:*** *Restrictions on outdoor events, specifically with regards to allowable hours/time of day, would be effective in avoiding the potential of outdoor event crowd and outdoor event amplified music noise exceeding applicable General Plan noise level criteria (e.g., outdoor events restricted during nighttime hours).*

In conjunction with the submittal of Improvement Plans and/or issuance of Building Permits, a design-level acoustical analysis shall be submitted to the El Dorado County Planning and Building Department that demonstrates the included measures comply with applicable noise level criteria, including El Dorado County General Plan daytime, evening and nighttime hourly average (L_{eq}) and maximum (L_{max}) noise level standards at the closest residential receivers and General Plan exceedance criteria (Policy 6.5.1.13).

4.9-3 Generation of a substantial permanent increase in ambient noise levels associated with Project Buildout in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below, even with implementation of mitigation, the impact would remain *significant and unavoidable*.

Detailed plans illustrating locations of specific land use components and associated on-site operations noise sources within the Program Study Area have not yet been developed. As such, the Noise Assessment included various assumptions, such as generalized land use operational noise exposure impacts at existing noise-sensitive uses, associated with the Program Study Area. Similar to the Project Development Area, the primary noise sources associated with the Program Study Area were assumed to be on-site passenger vehicle circulation, passenger vehicle parking movements, on-site truck circulation, truck delivery activities, and HVAC equipment. Detailed development plans for all land use components within the Program Study Area would be reviewed at a future date as part of the County's project approval process.

The calculated combined (and highest predicted) noise levels and resulting ambient noise level increases from combined Project Development Area and Program Study

Area on-site operations at nearby residential receivers 1-9 are shown in Table 4.9-35 through Table 4.9-40.

Table 4.9-35 through Table 4.9-40 show that combined and highest predicted noise levels from combined Project Development Area and Program Study Area on-site operations would exceed applicable El Dorado County General Plan daytime, evening and nighttime hourly L_{eq} exterior noise level standards at residential receivers 7 and 9 during daytime hours and at residential receivers 1, 6, 7, 8, and 9 during evening and nighttime hours. Applicable hourly L_{max} exterior noise level standards would be exceeded at residential receivers 1, 7, and 9 during evening hours and at residential receivers 1, 6, 7, 8, and 9 during nighttime hours.

Using the lowest average measured noise levels at each monitoring location during the survey, ambient plus combined Project Development Area and Program Study Area generated ambient noise level increases during daytime, evening and nighttime hours were calculated at residential receivers 1-9. As shown in Table 4.9-41, combined and highest predicted increases in ambient hourly L_{eq} and L_{max} noise levels from full Project Buildout on-site operations would exceed applicable General Plan Policy 6.5.1.13 hourly L_{eq} increase significance criteria at residential receivers 1 and 7 during daytime, evening, and nighttime hours, and hourly L_{max} increase significance criteria at residential receiver 1 during evening and nighttime hours.

Regardless of the impact determinations for individual on-site operations noise sources previously identified for the Project Development Area, and depending on the Program Study Area site design, and based on the predicted noise levels presented in Table 4.9-35 through Table 4.9-40, combined on-site operational noise level exposure associated with full Project Buildout could exceed applicable El Dorado County General Plan daytime, evening or nighttime exterior noise level standards and/or General Plan increase significance criteria at nearby existing sensitive uses. Therefore, a ***significant*** impact could occur related to related to generation of a substantial permanent increase in ambient noise levels associated with full Project Buildout in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Mitigation Measure(s)

Implementation of Mitigation Measure 4.9-3 would result in the identification of specific noise mitigation measures designed to reduce noise levels associated with operations of full Project Buildout. While some of the potential noise mitigation measures that may be included as part of the noise impact study could provide appreciable noise level decreases, such measures could be infeasible from a cost, site constraint, engineering or safety standpoint, or may not fully mitigate the noise impacts to a state of compliance with applicable El Dorado County noise level criteria. Thus, the successful implementation of the mitigation measures cannot be guaranteed. Furthermore, depending on the site design of the Program Study Area, implementation of measures, should they be warranted, may not fully mitigate combined noise level exposure from on-site operations associated with full Project Buildout to a state of compliance with applicable El Dorado County noise level criteria at nearby existing sensitive uses. Due to the identified uncertainties, the impact would remain *significant and unavoidable.*

Table 4.9-35
Combined Unmitigated Project Development Area and Program Study Area Noise Levels at Residential Uses – Daytime Hourly L_{eq}[1]

Receiver	Predicted Noise Levels, L_{eq} (dB)							Combined, L_{eq} (dB)	Applied County Daytime Standard, L_{eq} (dB)[3]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment	Event Center Crowd[2]	Event Center Amplified Music/Speech[2]		
1	52	46	40	48	32	30	47	55	55
2	41	34	27	35	28	21	38	44	55
3	40	30	25	31	26	19	36	42	55
4	40	30	24	31	25	18	35	42	55
5	40	30	24	31	24	18	35	42	55
6	41	33	26	34	27	28	43	46	50
7	47	41	35	43	33	32	54	**55**	**50**
8	38	29	23	32	27	32	49	50	50
9	42	35	29	36	30	35	52	**53**	**50**

[1] Calculated cumulative noise levels from unmitigated Project Development Area operations and projected Program Study Area operations at residential receivers 1-9.
[2] Project Development Area noise levels only.
[3] Applicable County exterior noise levels standards for "Community" and "Rural" areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-36
Combined Unmitigated Project Development Area and Program Study Area Noise Levels at Residential Uses– Evening Hourly L_{eq}[1]

Receiver	Predicted Noise Levels, L_{eq} (dB)							Combined, L_{eq} (dB)	Applied County Evening Standard, L_{eq} (dB)[3]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment[2]	Event Center Crowd[2]	Event Center Amplified Music/Speech[2]		
1	52	46	40	48	32	30	30	30	**50**
2	41	34	27	35	28	21	21	21	50
3	40	30	25	31	26	19	19	19	50
4	40	30	24	31	25	18	18	18	50
5	40	30	24	31	24	18	18	18	50
6	41	33	26	34	27	28	28	28	**45**
7	47	41	35	43	33	32	32	32	**45**
8	38	29	23	32	27	32	32	32	**45**
9	42	35	29	36	30	35	35	35	**45**

[1] Calculated cumulative noise levels from unmitigated Project Development Area operations and projected Program Study Area operations at residential receivers 1-9.
[2] Project Development Area noise levels only.
[3] Applicable County exterior noise levels standards for "Community" and "Rural" areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-37
Combined Unmitigated Project Development Area and Program Study Area Noise Levels at Residential Uses– Nighttime Hourly L_{eq}[1]

Receiver	Predicted Noise Levels, L_{eq} (dB)							Combined, L_{eq} (dB)	Applied County Nighttime Standard, L_{eq} (dB)[3]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment[2]	Event Center Crowd[2]	Event Center Amplified Music/Speech[2]		
1	52	46	40	48	32	30	47	**55**	**45**
2	41	34	27	35	28	21	38	44	45
3	40	30	25	31	26	19	36	42	45
4	40	30	24	31	25	18	35	42	45
5	40	30	24	31	24	18	35	42	45
6	41	33	26	34	27	28	43	**46**	**40**
7	47	41	35	43	33	32	54	**55**	**40**
8	38	29	23	32	27	32	49	**50**	**40**
9	42	35	29	36	30	35	52	**53**	**40**

[1] Calculated cumulative noise levels from unmitigated Project Development Area operations and projected Program Study Area operations at residential receivers 1-9.
[2] Project Development Area noise levels only.
[3] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-38
Combined Unmitigated Project Development Area and Program Study Area Noise Levels at Residential Uses– Daytime Maximum L_{max}[1]

Receiver	Predicted Noise Levels, L_{eq} (dB)							Highest Predicted, L_{max} (dB)	Applied County Daytime Standard, L_{max} (dB)[3]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment[2]	Event Center Crowd[2]	Event Center Amplified Music/Speech[2]		
1	62	58	62	59	--	52	52	62	70
2	51	50	48	45	--	43	43	51	70
3	49	44	45	41	--	41	41	49	70
4	49	43	44	41	--	40	40	49	70
5	49	42	44	41	--	40	40	49	70
6	51	44	47	44	--	50	48	51	60
7	57	52	56	53	--	54	59	59	60
8	47	40	44	41	--	54	54	54	60
9	51	45	49	45	--	57	57	57	60

[1] Highest predicted noise levels from unmitigated Project Development Area operations and projected Program Study Area operations at residential receivers 1-9.
[2] Project Development Area noise levels only.
[3] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-39
Combined Unmitigated Project Development Area and Program Study Area Noise Levels at Residential Uses– Evening Maximum L_{max}[1]

Receiver	Predicted Noise Levels, L_{eq} (dB)							Highest Predicted, L_{max} (dB)	Applied County Evening Standard, L_{max} (dB)[3]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment[2]	Event Center Crowd[2]	Event Center Amplified Music/Speech[2]		
1	62	58	62	59	--	52	52	**62**	**60**
2	51	50	48	45	--	43	43	51	60
3	49	44	45	41	--	41	41	49	60
4	49	43	44	41	--	40	40	49	60
5	49	42	44	41	--	40	40	49	60
6	51	44	47	44	--	50	48	51	55
7	57	52	56	53	--	54	59	**59**	**55**
8	47	40	44	41	--	54	54	54	55
9	51	45	49	45	--	57	57	**57**	**55**

[1] Highest predicted noise levels from unmitigated Project Development Area operations and projected Program Study Area operations at residential receivers 1-9.
[2] Project Development Area noise levels only.
[3] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-40
Combined Unmitigated Project Development Area and Program Study Area Noise Levels at Residential Uses– Nighttime Maximum L_{max}[1]

Receiver	Predicted Noise Levels, L_{eq} (dB)							Highest Predicted, L_{max} (dB)	Applied County Evening Standard, L_{max} (dB)[3]
	On-Site Passenger Vehicle Circulation	Parking Lot Activities	On-Truck Delivery Truck Circulation	On-Site Delivery Truck Activities	HVAC Equipment[2]	Event Center Crowd[2]	Event Center Amplified Music/Speech[2]		
1	62	58	62	59	--	52	52	**62**	**55**
2	51	50	48	45	--	43	43	51	55
3	49	44	45	41	--	41	41	49	55
4	49	43	44	41	--	40	40	49	55
5	49	42	44	41	--	40	40	49	55
6	51	44	47	44	--	50	48	**51**	**50**
7	57	52	56	53	--	54	59	**59**	**50**
8	47	40	44	41	--	54	54	**54**	**50**
9	51	45	49	45	--	57	57	**57**	**50**

[1] Highest predicted noise levels from unmitigated Project Development Area operations and projected Program Study Area operations at residential receivers 1-9.
[2] Project Development Area noise levels only.
[3] Applicable County exterior noise levels standards for “Community” and “Rural” areas as assigned.
Red: Exceedance of El Dorado County noise level standard.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-41
Calculated Combined and Highest Predicted Increases in Ambient L_{eq} and L_{max} Noise Levels– Project Buildout

Receiver	Increase in Ambient Noise Level, L_{eq} (dB)			Applied General Plan Increase Significance Criterion, L_{eq} (dB)[1]			Increase in Ambient Noise Level, L_{max} (dB)			Applied General Plan Increase Significance Criterion, L_{max} (dB)[1]		
	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	**9.5**	**10.4**	**14.2**	**5.0**	**5.0**	**5.0**	4.8	**5.5**	**10.4**	5.0	**5.0**	**3.0**
2	2.3	2.7	5.0	5.0	5.0	5.0	0.6	0.8	2.5	5.0	5.0	3.0
3	1.6	1.9	3.7	5.0	5.0	5.0	0.4	0.5	1.8	5.0	5.0	3.0
4	0.5	0.6	1.2	5.0	5.0	3.0	0.1	0.1	0.3	5.0	3.0	3.0
5	0.5	0.6	1.1	5.0	5.0	3.0	0.1	0.1	0.3	5.0	3.0	3.0
6	0.6	1.0	1.2	3.0	3.0	3.0	0.2	0.1	0.3	3.0	3.0	3.0
7	**3.7**	**5.0**	**5.7**	**3.0**	**3.0**	**3.0**	1.2	0.8	1.4	3.0	3.0	3.0
8	0.3	0.6	1.0	3.0	3.0	3.0	0.0	0.0	0.1	3.0	3.0	3.0
9	0.6	1.2	1.8	3.0	3.0	3.0	0.1	0.1	0.2	3.0	3.0	3.0

1 Applied County increase significance criteria based on results from BAC ambient noise survey.
Red: Exceedance of El Dorado County increase significance criteria.

Source: Bollard Acoustical Consultants, Inc., 2024.

Project Buildout

4.9-3 *In conjunction with submittal of site-specific development plans for the Program Study Area, a noise impact study shall be prepared by a qualified noise consultant that addresses combined on-site operations noise level exposure associated with full buildout of the project (i.e., Project Development Area and Program Study Area) and submitted by the project applicant for review and approval to the El Dorado County Planning and Building Department. The noise impact study shall include an analysis of on-site operational noise exposure associated with full Project Buildout at nearby existing noise-sensitive receivers. The analysis shall include associated mitigation measures (as appropriate) to reduce full Project Buildout on-site operations noise levels to a state of compliance with applicable El Dorado County General Plan daytime, evening and nighttime exterior noise level criteria and General Plan increase significance criteria at nearby existing noise-sensitive receptors to the extent feasible. Mitigation measures may include, but not necessarily be limited to, reducing on-site traffic volumes, reducing on-site vehicle speeds, constructing noise barriers and shielding/screening, using setbacks, implementing noise-reducing pavement, and implementing operational restrictions.*

4.9-4 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Based on the analysis below, the impact is *less than significant*.

As presented in Table 4.9-3, the measured existing ambient vibration levels in the project vicinity are below the 65 VdB threshold of human perception. The proposed project would consist primarily of commercial and residential uses. Such uses do not typically involve equipment that generates appreciable vibration. Overall, operations associated with the proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels.

However, construction activities associated with the proposed project would have the potential to result in varying degrees of temporary ground vibration depending on the specific construction equipment used and operations involved. Accordingly, the analysis below focuses on construction vibration only. The potential vibration impacts associated with the proposed on-site and off-site construction activities are discussed separately below.

On-Site Construction Vibration

The following discussion applies to both components of the proposed project.

Project Development Area and Project Buildout

During on-site project construction, heavy equipment would be used for grading, excavation, paving, and building construction. Use of heavy equipment associated with such would generate localized vibration in the immediate vicinity of the project site. The nearest existing sensitive structure to both the Project Development Area and Program Study Area has been identified as residential receiver 7.

Table 4.9-42 presents the range of vibration levels for equipment commonly used in general residential construction projects at a reference distance of 25 feet, as well as at the nearest existing sensitive structure (residential receiver 7).

Table 4.9-42
Project Site Reference and Projected Construction Vibration Source Amplitudes

Equipment	Reference Maximum Vibration level at 25 Feet, VdB (rms)	Predicted Maximum Vibration Levels, VdB (rms)[1]	
		Project Development Area (500 Feet)	Program Study Area (500 Feet)
Vibratory Roller	94	57	57
Hoe Ram	87	56	56
Large Bulldozer	87	56	56
Caisson Drilling	87	56	56
Loaded Trucks	86	56	56
Jackhammer	79	<55	<55
Small Bulldozer	58	<55	<55

[1] RMS velocity in decibels (VdB) re 1 micro-inch/second.

Source: Bollard Acoustical Consultants, Inc., 2024.

As shown in Table 4.9-42, construction vibration levels generated from construction of both components of the proposed project would be below the FTA threshold for damage to engineered structures (98 VdB) at a distance of 25 feet. In addition, the construction-related vibration levels would be below the human threshold of perception (65 VdB) at the nearest structure. Therefore, on-site construction within the project site and adjacent roadway improvements would not result in excessive groundborne vibration levels at nearby existing residences.

Off-Site Construction Vibration

Similar to the on-site construction activities, construction of the off-site improvements would involve heavy equipment, which would generate localized vibration in the immediate vicinity of such activities. As discussed above, the nearest existing noise-sensitive receptor to the proposed water line is a residence on Tierra de Dios Drive, approximately 250 feet away. The nearest existing receptor to the proposed sewer line is a residence on Tong Road, approximately 200 feet away, and the nearest existing sensitive receptor to the proposed bike path bridge is a residence on Old Bass lake Road, approximately 400 feet away.

Table 4.9-43 presents the range of vibration levels for equipment commonly used in general construction projects at a distance of 25 feet, as well as the projected equipment vibration levels at the nearest identified existing sensitive receptors (residences) to potential off-site improvement work areas. As shown in Table 4.9-43, vibration levels associated with the off-site infrastructure improvement work areas would be below the FTA threshold for damage to engineered structures (98 VdB) at a distance of 25 feet. In addition, the construction-related vibration levels shown in Table 4.9-43 are predicted to be below the human threshold of perception (65 VdB) at the nearest structures.

Table 4.9-43
Off-Site Improvements Construction Vibration Levels

Equipment	Reference Maximum Vibration level at 25 Feet, VdB (rms)	Predicted Maximum Vibration Levels, VdB (rms)[1]		
		Water (250 Feet)	Sewer (200 Feet)	Bike Bridge (400 Feet)
Vibratory Roller	94	60	62	58
Hoe Ram	87	58	59	56
Large Bulldozer	87	58	59	56
Caisson Drilling	87	58	59	56
Loaded Trucks	86	57	58	55
Jackhammer	79	56	57	55
Small Bulldozer	58	<55	<55	<55

[1] RMS velocity in decibels (VdB) re 1 micro-inch/second.

Source: Bollard Acoustical Consultants, Inc., 2024.

Based on the above, vibration levels generated from off-site infrastructure improvement work areas are not expected to result in excessive groundborne vibration levels at the nearest existing residential uses.

Conclusion

Based on the above, construction and operation of the proposed project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. As such, 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 following discussion includes an analysis of the proposed project in combination with two differed cumulative scenarios: the 2040 Cumulative Scenario and the 2040 Super Cumulative scenario.

The 2040 Cumulative Scenario is based on an estimated growth percentage associated with buildout of the adopted El Dorado County General Plan, in combination with development of the Project Development Area and Program Study Area.

The 2040 Super Cumulative scenario is based on the estimated growth percentage associated with buildout of the adopted El Dorado County General Plan, in combination with reasonably foreseeable General Plan Amendment projects, as well as development of the Project Development Area and Program Study Area. General Plan Amendment projects included within the 2040 Super Cumulative condition include, but are not limited to, the proposed Village at Marble Valley Specific Plan (VMVSP), Lime Rock Valley Specific Plan (LRVSP), and El Dorado Hills (EDH) 52 projects.

For further detail related to the cumulative setting of the proposed project, refer to Chapter 5, Statutorily Required Sections, of this EIR.

4.9-5 Generation of a substantial permanent increase in ambient noise levels associated with cumulative development of the proposed project in combination with future buildout within El Dorado County. Based on the analysis below, the project's incremental contribution to the significant cumulative impact is *less than cumulatively considerable*.

Future development projects within El Dorado County, including the proposed project, would incrementally affect the future cumulative ambient noise environment. Given the commercial and residential nature of the proposed project, the primary project component that could combine with noise impacts from surrounding development in the project region would be associated with vehicle traffic generated by the project and other planned development projects, which together, could potentially result in a significant cumulative impact related to transportation noise.

The FHWA-RD-77-108 traffic noise model was used to quantify increases in future (cumulative) traffic noise levels at the nearest existing sensitive land uses to the project area roadway network. BAC compared predicted 2040 Cumulative traffic noise levels to 2040 Cumulative Plus Project traffic noise levels, and predicted 2040 Super Cumulative traffic noise levels to 2040 Super Cumulative Plus Project traffic noise levels to determine the proposed project's contribution to the cumulative noise environment. The estimated noise levels are presented in Table 4.9-44 and Table 4.9-45.

The tables include an assessment of predicted traffic noise levels relative to the El Dorado County General Plan Policy 6.5.1.12 noise level increase significance criteria. As shown in the tables, the proposed project's incremental increase in traffic noise levels under both 2040 Cumulative Plus Project conditions and 2040 Super Cumulative Plus Project conditions would be below the El Dorado County General Plan increase significance criteria. Overall, the project's incremental contribution to cumulative traffic noise at existing sensitive receptors would be less than significant under both 2040 Cumulative Plus Project conditions and 2040 Super Cumulative Plus Project conditions.

Based on the above, under both 2040 Cumulative Plus Project and 2040 Super Cumulative Plus Project conditions, the proposed project would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or

applicable standards of other agencies. Therefore, the project's incremental contribution to cumulative traffic noise impacts would be ***less than cumulatively considerable***.

Mitigation Measure(s)

None required.

Table 4.9-44
Predicted Traffic Noise Level Increases at Existing Sensitive Receptors – 2040 Cumulative vs. 2040 Cumulative Plus Project

#	Roadway	Segment	Noise Levels at 100 Feet, DNL (dB)			Significance Threshold (dB)[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			2040 Cumulative	2040 Cumulative Plus Project	Increase				
1	Alexandrite Drive	North of Green Valley Road	32.7	32.7	0.0	5.0	No	Yes	No
2	Bass Lake Road	Green Valley Road to Woodleigh Lane	63.3	63.4	0.1	3.0	No	Yes	No
3	Bass Lake Road	Woodleigh Lane to Magnolia Hills Drive	61.4	61.5	0.2	3.0	No	Yes	No
4	Bass Lake Road	Magnolia Hills Drive to Silver Springs Parkway	59.6	59.8	0.2	5.0	No	Yes	No
5	Bass Lake Road	Bass Lake Road to Madera Way	59.8	59.9	0.1	5.0	No	Yes	No
6	Bass Lake Road	Madera Way to Bridlewood Drive	60.1	60.2	0.1	3.0	No	Yes	No
7	Bass Lake Road	Bridlewood Drive to Whistling Way	58.9	59.1	0.2	5.0	No	Yes	No
8	Bass Lake Road	Whistling Way to Serrano Parkway	58.9	59.1	0.2	5.0	No	Yes	No
9	Bass Lake Road	Serrano Parkway to Brannan Way	60.3	60.6	0.3	3.0	No	Yes	No
10	Bass Lake Road	Brannan Way to Hawk View Road	61.2	61.5	0.3	3.0	No	Yes	No
11	Bass Lake Road	Hawk View Road to Sienna Ridge Road	54.8	55.1	0.3	5.0	No	Yes	No
12	Bass Lake Road	Sienna Ridge Road to Hollow Oak Drive	57.6	57.9	0.3	5.0	No	Yes	No
13	Bass Lake Road	Hollow Oak Drive to Silver Dove Way	53.2	53.2	0.0	5.0	No	Yes	No
14	Bass Lake Road	Silver Dove Way to Country Club Drive	57.1	57.1	0.0	5.0	No	Yes	No
15	Bass Lake Road	Country Club Drive to Project Driveway 1	56.1	57.8	1.7	5.0	No	Yes	No
16	Bass Lake Road	Project Driveway 1 to Old Country Club Drive	56.1	57.8	1.7	5.0	No	Yes	No
17	Bass Lake Road	Old Country Club Drive to US 50 Westbound Ramp	52.4	54.1	1.7	5.0	No	Yes	No
18	Bass Lake Road	US 50 Westbound Ramp to US 50 Eastbound Ramp	48.7	50.1	1.5	5.0	No	Yes	No
19	Brannan Way	West of Bass Lake Road	52.1	52.1	0.0	5.0	No	Yes	No
20	Bridlewood Drive	East of Bass Lake Road	54.7	55.2	0.5	5.0	No	Yes	No
21	Cambridge Road	South of Green Valley Road	61.3	61.3	0.0	3.0	No	Yes	No
22	Cambridge Road	North of Merrychase Drive	63.5	63.5	0.0	3.0	No	Yes	No
23	Cambridge Road	US 50 Eastbound Ramp to US 50 Westbound Ramp	55.4	55.4	0.0	5.0	No	Yes	No
24	Church Place	North of Country Club Drive	30.8	30.8	0.0	5.0	No	Yes	No
25	Country Club Drive	Bass Lake Road to Project Driveway 2	44.1	47.7	3.6	5.0	No	Yes	No
26	Country Club Drive	Project Driveway 2 to Project Driveway 3	43.1	45.7	2.7	5.0	No	Yes	No
27	Country Club Drive	Project Driveway 3 to Church Place	46.9	46.7	0.0	5.0	No	Yes	No
28	Country Club Drive	Church Place to Morrison Road	47.6	48.2	0.6	5.0	No	Yes	No
29	Country Club Drive	Morrison Road to El Norte Road	59.0	59.8	0.8	5.0	No	Yes	No
30	Country Club Drive	El Norte Road to Merrychase Drive	60.9	61.7	0.8	3.0	No	Yes	No
31	Country Club Drive	East of Merrychase Drive	58.9	59.3	0.4	5.0	No	Yes	No
32	El Norte Road	North of Country Club Drive	43.8	44.2	0.4	5.0	No	Yes	No
33	Flying C Road	South of US 50 Eastbound Ramp	45.5	45.5	0.0	5.0	No	Yes	No
34	Green Valley Road	West of Silver Springs Parkway	60.3	60.3	0.0	3.0	No	Yes	No
35	Green Valley Road	Silver Springs Parkway to Bass Lake Road	59.2	59.2	0.0	5.0	No	Yes	No
36	Green Valley Road	Bass Lake Road to Cambridge Road	61.7	61.7	0.0	3.0	No	Yes	No
37	Green Valley Road	East of Cambridge Road	60.9	60.9	0.0	3.0	No	Yes	No
38	Hawk View Road	West of Bass Lake Road	54.7	55.2	0.5	5.0	No	Yes	No
39	Hawk View Road	East of Bass Lake Road	34.3	34.3	0.0	5.0	No	Yes	No
40	Hollow Oak Drive	East of Bass Lake Road	46.7	46.7	0.0	5.0	No	Yes	No
41	Madera Way	East of Bass Lake Road	56.2	56.2	0.0	5.0	No	Yes	No
42	Magnolia Hills Drive	South of Bass Lake Road	53.8	53.8	0.0	5.0	No	Yes	No
43	Marble Valley Road	South of US 50 Eastbound Ramp	52.6	51.1	0.0	5.0	No	Yes	No

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Table 4.9-44
Predicted Traffic Noise Level Increases at Existing Sensitive Receptors – 2040 Cumulative vs. 2040 Cumulative Plus Project

#	Roadway	Segment	Noise Levels at 100 Feet, DNL (dB)			Significance Threshold (dB)[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			2040 Cumulative	2040 Cumulative Plus Project	Increase				
44	Merrychase Drive	Country Club Drive to Cambridge Road	59.6	59.6	0.0	5.0	No	Yes	No
45	Morrison Road	North of Country Club Drive	56.7	56.7	0.0	5.0	No	Yes	No
46	Old Bass Lake Road	West of Bass Lake Road	54.3	54.6	0.2	5.0	No	Yes	No
47	Old Country Club Road	Bass Lake Road to Project Driveway 4	21.3	21.3	0.0	5.0	No	Yes	No
48	Old Country Club Road	Project Driveway 4 to Project Driveway 5	20.9	20.9	0.0	5.0	No	Yes	No
49	Old Country Club Road	Project Driveway 5 to Country Club Drive	19.4	19.4	0.0	5.0	No	Yes	No
50	Peridot Drive	North of Green Valley Road	50.9	50.9	0.0	5.0	No	Yes	No
51	Serrano Parkway	North of Bass Lake Road	56.7	57.1	0.5	5.0	No	Yes	No
52	Sienna Ridge Road	South of Bass Lake Road	51.5	51.5	0.0	5.0	No	Yes	No
53	Sienna Ridge Road	East of Bass Lake Road	36.5	35.8	0.0	5.0	No	Yes	No
54	Silva Valley Parkway	North of Tong Road	64.8	65.2	0.3	1.5	No	Yes	No
55	Silva Valley Parkway	Tong Road to US 50 Westbound Ramp	52.2	52.4	0.2	5.0	No	Yes	No
56	Silva Valley Parkway	US 50 Westbound Ramp to US 50 Eastbound Ramp	53.0	53.3	0.2	5.0	No	Yes	No
57	Silver Dove Way	West of Bass Lake Road	44.8	44.8	0.0	5.0	No	Yes	No
58	Silver Springs Parkway	Green Valley Road to Bass Lake Road	55.3	55.4	0.1	5.0	No	Yes	No
59	Tong Road	East of Silva Valley Parkway	51.4	51.6	0.2	5.0	No	Yes	No
60	Trinidad Drive	South of Country Club Drive	46.7	46.7	0.0	5.0	No	Yes	No
61	US 50 Eastbound Ramp	East of Silva Valley Parkway	46.3	46.7	0.4	5.0	No	Yes	No
62	US 50 Eastbound Ramp	East of Bass Lake Road	47.1	48.7	1.6	5.0	No	Yes	No
63	US 50 Westbound Ramp	West of Silva Valley Parkway	47.2	47.2	0.0	5.0	No	Yes	No
64	US 50 Westbound Ramp	West of Bass Lake Road	52.0	53.7	1.7	5.0	No	Yes	No
65	Whistling Way	South of Bass Lake Road	38.6	38.6	0.0	5.0	No	Yes	No
66	White Rock Road	South of US 50 Eastbound Ramp	55.5	55.7	0.2	5.0	No	Yes	No
67	Woodleigh Lane	East of Bass Lake Road	55.5	55.7	0.2	5.0	No	Yes	No

[1] Significance thresholds established in General Plan Policy 6.5.1.12.
[2] Sensitive receptors were considered to be residences of all densities, schools, and transient lodging facilities.
[3] A significant impact is identified only along segments where the project-related traffic noise level increase would exceed the significance threshold and where sensitive receptors are present along the roadway segment.

Source: Bollard Acoustical Consultants, Inc., 2024.

Table 4.9-45
Predicted Traffic Noise Level Increases at Existing Sensitive Receptors – 2040 Super Cumulative vs. 2040 Super Cumulative Plus Project

#	Roadway	Segment	Noise Levels at 100 Feet, DNL (dB)			Significance Threshold (dB)[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			2040 Super Cumulative	2040 Super Cumulative Plus Project	Increase				
1	Alexandrite Drive	North of Green Valley Road	34.1	34.1	0.0	5.0	No	Yes	No
2	Bass Lake Road	Green Valley Road to Woodleigh Lane	63.0	63.1	0.1	3.0	No	Yes	No
3	Bass Lake Road	Woodleigh Lane to Magnolia Hills Drive	61.1	61.3	0.2	3.0	No	Yes	No
4	Bass Lake Road	Magnolia Hills Drive to Silver Springs Parkway	59.4	59.6	0.2	5.0	No	Yes	No
5	Bass Lake Road	Bass Lake Road to Madera Way	59.7	59.8	0.1	5.0	No	Yes	No
6	Bass Lake Road	Madera Way to Bridlewood Drive	60.1	60.2	0.1	3.0	No	Yes	No
7	Bass Lake Road	Bridlewood Drive to Whistling Way	58.8	59.0	0.2	5.0	No	Yes	No
8	Bass Lake Road	Whistling Way to Serrano Parkway	59.0	59.1	0.2	5.0	No	Yes	No
9	Bass Lake Road	Serrano Parkway to Brannan Way	60.0	60.3	0.3	3.0	No	Yes	No
10	Bass Lake Road	Brannan Way to Hawk View Road	61.1	61.4	0.3	3.0	No	Yes	No
11	Bass Lake Road	Hawk View Road to Sienna Ridge Road	54.5	54.8	0.4	5.0	No	Yes	No
12	Bass Lake Road	Sienna Ridge Road to Hollow Oak Drive	57.3	57.7	0.4	5.0	No	Yes	No
13	Bass Lake Road	Hollow Oak Drive to Silver Dove Way	52.9	52.9	0.0	5.0	No	Yes	No
14	Bass Lake Road	Silver Dove Way to Country Club Drive	56.9	56.9	0.0	5.0	No	Yes	No
15	Bass Lake Road	Country Club Drive to Project Driveway 1	56.6	58.1	1.5	5.0	No	Yes	No
16	Bass Lake Road	Project Driveway 1 to Old Country Club Drive	56.6	58.1	1.6	5.0	No	Yes	No
17	Bass Lake Road	Old Country Club Drive to US 50 Westbound Ramp	52.8	54.4	1.6	5.0	No	Yes	No
18	Bass Lake Road	US 50 Westbound Ramp to US 50 Eastbound Ramp	52.1	52.8	0.7	5.0	No	Yes	No
19	Brannan Way	West of Bass Lake Road	46.7	46.7	0.0	5.0	No	Yes	No
20	Bridlewood Drive	East of Bass Lake Road	54.6	55.1	0.5	5.0	No	Yes	No
21	Cambridge Road	South of Green Valley Road	61.4	61.4	0.0	3.0	No	Yes	No
22	Cambridge Road	North of Merrychase Drive	64.2	64.2	0.0	3.0	No	Yes	No
23	Cambridge Road	US 50 Eastbound Ramp to US 50 Westbound Ramp	58.0	58.0	0.0	5.0	No	Yes	No
24	Church Place	North of Country Club Drive	30.8	30.8	0.0	5.0	No	Yes	No
25	Country Club Drive	Bass Lake Road to Project Driveway 2	43.2	47.4	4.1	5.0	No	Yes	No
26	Country Club Drive	Project Driveway 2 to Project Driveway 3	42.2	45.3	3.1	5.0	No	Yes	No
27	Country Club Drive	Project Driveway 3 to Church Place	46.1	46.7	0.6	5.0	No	Yes	No
28	Country Club Drive	Church Place to Morrison Road	46.7	47.5	0.8	5.0	No	Yes	No
29	Country Club Drive	Morrison Road to El Norte Road	58.1	59.0	0.9	5.0	No	Yes	No
30	Country Club Drive	El Norte Road to Merrychase Drive	59.0	60.2	1.2	3.0	No	Yes	No
31	Country Club Drive	East of Merrychase Drive	58.5	58.9	0.4	5.0	No	Yes	No
32	El Norte Road	North of Country Club Drive	44.5	44.8	0.3	5.0	No	Yes	No
33	Flying C Road	South of US 50 Eastbound Ramp	51.5	51.5	0.0	5.0	No	Yes	No
34	Green Valley Road	West of Silver Springs Parkway	60.2	60.3	0.0	3.0	No	Yes	No
35	Green Valley Road	Silver Springs Parkway to Bass Lake Road	59.1	59.1	0.0	5.0	No	Yes	No
36	Green Valley Road	Bass Lake Road to Cambridge Road	61.5	61.6	0.0	3.0	No	Yes	No
37	Green Valley Road	East of Cambridge Road	60.8	60.8	0.0	3.0	No	Yes	No
38	Hawk View Road	West of Bass Lake Road	52.4	53.1	0.8	5.0	No	Yes	No
39	Hawk View Road	East of Bass Lake Road	15.8	15.8	0.0	5.0	No	Yes	No
40	Hollow Oak Drive	East of Bass Lake Road	46.1	46.1	0.0	5.0	No	Yes	No
41	Madera Way	East of Bass Lake Road	56.1	56.1	0.0	5.0	No	Yes	No
42	Magnolia Hills Drive	South of Bass Lake Road	54.0	54.0	0.0	5.0	No	Yes	No
43	Marble Valley Road	South of US 50 Eastbound Ramp	62.1	62.1	0.0	3.0	No	Yes	No

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Table 4.9-45
Predicted Traffic Noise Level Increases at Existing Sensitive Receptors – 2040 Super Cumulative vs. 2040 Super Cumulative Plus Project

#	Roadway	Segment	Noise Levels at 100 Feet, DNL (dB)			Significance Threshold (dB)[1]	Threshold Exceeded?	Sensitive Receptors Present?[2]	Significant Impact Identified?[3]
			2040 Super Cumulative	2040 Super Cumulative Plus Project	Increase				
44	Merrychase Drive	Country Club Drive to Cambridge Road	60.5	60.5	0.0	3.0	No	Yes	No
45	Morrison Road	North of Country Club Drive	56.7	56.7	0.0	5.0	No	Yes	No
46	Old Bass Lake Road	West of Bass Lake Road	58.0	58.1	0.1	5.0	No	Yes	No
47	Old Country Club Road	Bass Lake Road to Project Driveway 4	21.3	21.3	0.0	5.0	No	Yes	No
48	Old Country Club Road	Project Driveway 4 to Project Driveway 5	20.9	20.9	0.0	5.0	No	Yes	No
49	Old Country Club Road	Project Driveway 5 to Country Club Drive	19.4	19.4	0.0	5.0	No	Yes	No
50	Peridot Drive	North of Green Valley Road	51.0	51.0	0.0	5.0	No	Yes	No
51	Serrano Parkway	North of Bass Lake Road	57.4	57.7	0.3	5.0	No	Yes	No
52	Sienna Ridge Road	South of Bass Lake Road	51.5	51.5	0.0	5.0	No	Yes	No
53	Sienna Ridge Road	East of Bass Lake Road	38.4	38.4	0.0	5.0	No	Yes	No
54	Silva Valley Parkway	North of Tong Road	65.4	65.7	0.3	1.5	No	Yes	No
55	Silva Valley Parkway	Tong Road to US 50 Westbound Ramp	53.5	53.7	0.2	5.0	No	Yes	No
56	Silva Valley Parkway	US 50 Westbound Ramp to US 50 Eastbound Ramp	53.8	53.9	0.2	5.0	No	Yes	No
57	Silver Dove Way	West of Bass Lake Road	45.2	45.2	0.0	5.0	No	Yes	No
58	Silver Springs Parkway	Green Valley Road to Bass Lake Road	55.3	55.4	0.1	5.0	No	Yes	No
59	Tong Road	East of Silva Valley Parkway	56.3	56.4	0.1	5.0	No	Yes	No
60	Trinidad Drive	South of Country Club Drive	48.1	48.1	0.0	5.0	No	Yes	No
61	US 50 Eastbound Ramp	East of Silva Valley Parkway	46.4	46.8	0.4	5.0	No	Yes	No
62	US 50 Eastbound Ramp	East of Bass Lake Road	47.4	48.9	1.5	5.0	No	Yes	No
63	US 50 Westbound Ramp	West of Silva Valley Parkway	48.4	48.4	0.0	5.0	No	Yes	No
64	US 50 Westbound Ramp	West of Bass Lake Road	55.4	56.2	0.9	5.0	No	Yes	No
65	Whistling Way	South of Bass Lake Road	39.9	39.9	0.0	5.0	No	Yes	No
66	White Rock Road	South of US 50 Eastbound Ramp	56.1	56.3	0.1	5.0	No	Yes	No
67	Woodleigh Lane	East of Bass Lake Road	55.6	55.8	0.2	5.0	No	Yes	No

[1] Significance thresholds established in General Plan Policy 6.5.1.12.
[2] Sensitive receptors were considered to be residences of all densities, schools, and transient lodging facilities.
[3] A significant impact is identified only along segments where the project-related traffic noise level increase would exceed the significance threshold and where sensitive receptors are present along the roadway segment.

Source: Bollard Acoustical Consultants, Inc., 2024.

4.10. PUBLIC SERVICES AND RECREATION

4.10. PUBLIC SERVICES AND RECREATION

4.10.1 INTRODUCTION

The Public Services and Recreation chapter of the EIR summarizes the setting information and identifies potential new demands resulting from the proposed project on fire and sheriff protection services, as well as demand associated with schools, parks, recreation facilities, and other public facilities such as libraries. Potential impacts are identified if the proposed 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 Recreation chapter was primarily drawn from the El Dorado County General Plan,[1] the El Dorado County General Plan EIR,[2] the Bass Lake Hills Specific Plan (BLHSP),[3] and the Bass Lake Road Study Area Program EIR (Bass Lake EIR).[4]

It should be noted that impacts related to wildfire are addressed in Chapter 4.14, Wildfire, of this EIR.

4.10.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing fire, sheriff protection, and other public services within the project area, including schools, parks, and recreation facilities. The project site is located in unincorporated El Dorado County, approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road.

Fire Protection Services

Fire protection services in the project area are provided by the El Dorado Hills Fire Department (EDHFD). The EDHFD currently provides services to their approximately 30,000-acre service area, which contains approximately 13,215 homes, eight schools, and approximately four million square feet (sf) of commercial development.[5] EDHFD currently operates five stations and has a total of 83 personnel, including 65 firefighters, as well as paramedics, chief officers, fire prevention specialists, training officers, fleet maintenance personnel and administrative staff.

According to the EDHFD's Strategic Plan 2017-2022, the EDHFD provides fire suppression, prevention, and investigation services, emergency medical services (EMS), special and technical rescue, hazardous materials mitigation, public education, disaster preparedness, and support to nearly 112 square miles, which encompass the communities of El Dorado Hills, Rescue, and Latrobe.[6] The EDHFD participates in joint dispatching with other fire agencies in El Dorado County. As such, within the County, the closest uncommitted unit responds to an emergency call

1 El Dorado County. *2004 El Dorado County General Plan.* Adopted July 19, 2004. Amended December 10, 2019.
2 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.
3 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
4 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.
5 El Dorado Hills Fire Department. *Department History.* Available at: https://www.edhfire.com/about-us/2013-03-27-00-10-22/history. Accessed April 2024.
6 El Dorado Hills Fire Department. *EDHFD Strategic Plan 2017-2022.* Adopted April 18, 2013. Updated June 15, 2017.

regardless of jurisdiction. Furthermore, EDHFD participates in the Master Mutual Aid System for the State of California, which provides staff and mechanical assistance throughout the State.

The nearest fire station to the project site is the Bass Lake Station (Station #86), located at 3670 Bass Lake Road, approximately 0.4-mile northwest of the project site. The site was purchased by the EDHFD in 1999, and the station opened in March 2001. Station #86 is staffed with three personnel and equipped with an advanced life support engine.

Sheriff Protection Services

The El Dorado County Sheriff's Office (EDCSO) is responsible for law enforcement, criminal investigation, and crime prevention across 1,762 square miles of the unincorporated areas of El Dorado County, which encompasses a population of approximately 190,000. EDCSO is made up of the South Lake Tahoe patrol and the West Slope patrol, the latter of which would serve the project site. The South Lake Tahoe office is located at 1360 Johnson Boulevard, and the West Patrol EDCSO office is located in the City of Placerville, at 200 Industrial Drive. In addition to the two patrols, three EDCSO substations are located in Cameron Park, El Dorado Hills, and Georgetown. The closest substation to the project site is located at 4355 Town Center Boulevard, approximately 2.05 miles west of the site.

EDCSO currently operates several units, including investigations and crime scene investigations (CSI), a K9 unit with six canine teams, crisis response, search and rescue, an office of emergency services (OES), marine unit, and reserves. Support services include the personnel and backgrounds investigation, coroners, dispatch, property processing, records, vehicle abatement, and civil units.[7]

The investigations unit includes 23 full-time detectives, a crime analyst, two sergeants, and a lieutenant, while the CSI unit is comprised of 11 deputy sheriffs.[8] Within the crisis response unit, EDCSO maintains three teams: a crisis negotiation team (CNT), explosives ordnance disposal (EOD) team with three sheriff's deputies and one sheriff's sergeant, and a special weapons and tactics (SWAT) team comprised of 15 entry members, four snipers, four tactical medics, and two canine teams.[9]

Schools

The project would be served by the Buckeye Union School District (BUSD) for all students aged kindergarten through eighth grade, and the El Dorado Union High School District (EDUHSD) for ninth through 12th grade. Table 4.10-1 below provides recent enrollment information for the BUSD and EDUHSD.

The project site is within the boundaries of the Blue Oak Elementary School and Camerado Springs Middle School attendance areas. According to the 2023-2024 enrollment projections, Blue Oak Elementary School would have over 300 available seats and Camerado Springs Middle

[7] El Dorado County. *Sheriff's Office.* Available at: https://www.edcgov.us/Government/sheriff/Pages/sheriff_main_info.aspx. Accessed April 2024.
[8] El Dorado County. *Investigative Services.* Available at: https://www.edcgov.us/Government/sheriff/Pages/investigative.aspx. Accessed April 2024.
[9] El Dorado County. *Crisis Response Unit.* Available at: https://www.edcgov.us/Government/sheriff/Patrol/Pages/swat_team.aspx. Accessed April 2024.

School was anticipated to have sufficient capacity ranging from 458 to 516 available seats for new students through the projected years, which extended to the 2029-2030 school year.[10]

Table 4.10-1
Enrollment and Capacity

BUSD		
School	**Grades**	**2022-2023 Enrollment**
Blue Oak Elementary	K-5	485
Buckeye Elementary	K-5	364
Buckeye Union Mandarin Immersion Charter School	K-5	124
Camerado Springs Middle	6-8	479
Oak Meadow Elementary	K-5	496
Rolling Hills Middle	6-8	817
Silva Valley Elementary	K-5	435
Valley View Charter Montessori Elementary	K-8	694
William Brooks Elementary	K-5	365
EDUHSD		
School	**Grades**	**2022-2023 Enrollment**
El Dorado High	9-12	1,224
Independence Continuation	9-12	126
Oak Ridge High	9-12	2,516
Pacific Crest Academy	9-12	100
Ponderosa High	9-12	1,648
Union Mine High	9-12	1,066

Source: El Dorado County Office of Education, 2024.

The project site is located at the far western edge of the boundaries of Ponderosa High School attendance area. According to the 2022-2023 enrollment projections, Ponderosa High School was anticipated to have over 600 available seats for students through the projected years, which extended to the 2028-2029 school year.[11]

Parks and Recreational Facilities

Recreational opportunities are provided by numerous federal, State, and local jurisdictions and private entities in El Dorado County. At the federal level, the U.S. Forest Service (USFS) manages approximately 20.8 million acres of forest and public domain range lands within California. Eldorado National Forest, which includes over 615,000 acres, extends throughout the County. The U.S. Bureau of Land Management (BLM) Mother Lode Field Office manages over 230,000 acres of public land scattered throughout Amador, Calaveras, El Dorado, Mariposa, Nevada, Placer, Sacramento, Stanislaus, Tuolumne, and Yuba counties. The BLM provides recreation sites at the north and south forks of the American River, which include activities such as rafting, kayaking, picnicking, trail hiking, swimming, hunting, and fishing.[12]

The project site is located within the boundaries of the El Dorado Hills Community Services District (CSD). According to the El Dorado Hills CSD Park and Recreation Facilities Master Plan, the El

[10] Buckeye Union School District. *2023/24 Demographics and Enrollment Projections.* November 2023.
[11] El Dorado Union High School District. *2022/23 Demographics and Enrollment Projections.* November 2022.
[12] Bureau of Land Management. *BLM Recreational Opportunities.* Available at: https://webmaps.blm.gov/program_apps/BLM_Natl_Recreation_Opportunities/. Accessed April 2024.

Dorado Hills CSD manages more than 500 acres of public parkland.[13] Parks within the El Dorado Hills CSD range in size from 0.6-acre to 207 acres. The parks include special use areas, trails and open spaces, and neighborhood, village, and community parks. The El Dorado Hills CSD also operates and maintains a variety of facilities including sports fields, courts for basketball, tennis, pickleball, and bocce ball, playgrounds, a dog park, a skate park, a gymnasium, a pool and splashpad, and centers for teens and seniors.

The nearest parks to the project site are the Christa McAuliffe Park and Dave West Park, which are located approximately 1.25 miles east of the project site. It should be noted that Christa McAuliffe park and Dave West Park are located in the Cameron Park community service district. In addition, the Bass Lake Regional Park is located approximately 1.51 miles north of the project site, and provides various recreational opportunities, including hiking, birdwatching, wildlife viewing, and fishing.

Other Public Facilities

The El Dorado County Department of Transportation is responsible for the funding, planning, designing, building, operating, and maintaining the County road system, which currently consists of approximately 1,083 miles of paved roadway, 76 bridges, various storm drainage systems, and other related transportation facilities. In addition to public roads, El Dorado County maintains various public facilities, such as public libraries and community centers, which could potentially be used by residents of the proposed project.

The El Dorado County Library provides library services to all County residents throughout County Service Areas (CSAs). The County operates six locations in Cameron Park, El Dorado Hills, Georgetown, Placerville, Pollock Pines, and South Lake Tahoe. The nearest library to the project site is the Cameron Park Library located at 2500 Country Club Drive, approximately 1.26 miles east of the project site.

4.10.3 REGULATORY CONTEXT

The following discussion contains a summary review of regulatory controls pertaining to public services and recreation, including State and local laws and ordinances.

State Regulations

The following are applicable State regulations related to the proposed project.

International Fire Code

The International Fire Code with the State of California Amendments contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

[13] El Dorado Hills Community Services District. *El Dorado Hills Community Services District Park and Recreation Facilities Master Plan Update*. Adopted August 2021, Revised March 14, 2024.

California Health and Safety Code

State fire regulations are set forth in Sections 4.10000 et seq. of the California Health and Safety Code, include regulations for building standards (as also set forth in the California Building Code), 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.

Minimum Fire Safe Regulations

The State Minimum Fire Safe Regulations are set forth in California Code of Regulations (CCR), Title 14, Section 1270, and constitute the minimum wildfire protection standards of the California Board of Forestry and Fire Protection related to development within State Responsibility Areas (SRAs) and Very High Fire Hazard Severity Zones (FHSZs). The wildfire protection standards contained in the State Minimum Fire Safe Regulations include, but are not limited to, regulations pertaining to the provision of basic emergency access; perimeter wildfire protection measures; signing and building numbering; private water supply reserves for emergency fire use; vegetation modification; fuel breaks; greenbelts; and the provision of undeveloped ridgelines.

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) is a school construction measure primarily for modernization and rehabilitation of older school facilities and construction of new school facilities. Proposition 1A/SB 50 implemented significant fee reforms by amending the laws governing developer fees and school mitigation.

- Establishes 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.
- Prohibits 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 65996[b]). 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 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 County 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.

Local Regulations

The following are applicable local regulations related to the proposed project.

El Dorado County General Plan

The relevant goals and policies from the El Dorado County General Plan related to public services and recreation are presented below.

Goal 5.1 PROVISION OF PUBLIC SERVICES: Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to existing development while allowing for additional growth in an efficient manner; and, ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.

Objective 5.1.1 PLANNING: Ensure that public infrastructure needs are anticipated and planned for in an orderly and cost effective manner.

Policy 5.1.1.2 The County shall review the Capital Improvement Plans of all public service and infrastructure entities to ensure coordination with the General Plan in order to maintain an adequate level of service.

Objective 5.1.2 CONCURRENCY: Ensure through consultation with responsible service and utility purveyors that adequate public services and utilities, including water supply, wastewater treatment and disposal, solid waste disposal capacity, storm drainage, fire protection, police protection, and ambulance service are provided concurrent with discretionary development or through other mitigation measures provided, and ensure that adequate school facilities are provided concurrent with discretionary development to the maximum extent permitted by State law. It shall be the policy of the County to cooperate with responsible service and utility purveyors in ensuring the adequate provision of service. Absent evidence beyond a reasonable doubt, the County will rely on the information received from such purveyors and shall not substitute its judgment for that of the responsible purveyors on questions of capacity or levels of service.

Policy 5.1.2.1 Prior to the approval of any discretionary development, the approving authority shall make a determination of the adequacy of the public services and utilities to be impacted by that development. Where, according to the purveyor responsible for the service or utility as provided in Table 5-1 (included herein as Table 4.10-2), demand is determined to exceed capacity, the approval of the

development shall be conditioned to require expansion of the impacted facility or service to be available concurrent with the demand, mitigated, or a finding made that a CIP project is funded and authorized which will increase service capacity.

Policy 5.1.2.2 Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to Table 5-1 (see Table 4.10-2). The following Levels of Service shall apply to the review of discretionary projects.

Table 4.10-2
Minimum Levels of Service

	Community Region	Rural Center and Rural Region
Public water source	As determined by purveyor	As determined by purveyor, when applicable
Private wells	Environmental Management	Environmental Management
Public water treatment capacity	As determined by purveyor	As determined by purveyor
Public sewer treatment capacity	As determined by purveyor	As determined by purveyor
On-site sewage disposal	Environmental Management	Environmental Management
Storm drainage	Department of Transportation	Department of Transportation
Solid waste	Environmental Management	Environmental Management
County and State Road circulation system	E	D
Schools	As determined appropriate by the school districts	As determined appropriate by the school districts
Parks	Specific plan for new communities or Quimby Fee/dedication program for tentative maps	Quimby Fee/dedication program for tentative maps
Fire district response	8-minute response to 80% of the population	15 to 45-minute response
Sheriff	8-minute response to 80% of the population	No standard
Ambulance	10-minute response to 80% of the population	20-minute response in Rural Regions and “as quickly as possible” in wilderness areas*

* In accordance with State standards.

Source: El Dorado County General Plan, 2004.

Objective 5.1.3 EFFICIENT DEVELOPMENT PATTERN: Promote a development pattern that permits the efficient delivery of public services in a cost-effective manner.

Policy 5.1.3.1 Growth and development and public facility expenditures shall be primarily directed to Community Regions and Rural Centers.

Policy 5.1.3.2 The Capital Improvements Plan (CIP) of the County and other service purveyors shall emphasize capacity in providing infrastructure in Community Regions and Rural Centers. The CIP shall emphasize health and safety improvements over capacity in Rural Regions.

Goal 5.7 EMERGENCY SERVICES: Adequate and comprehensive emergency services, including fire protection, law enforcement, and emergency medical services.

Objective 5.7.2 FIRE PROTECTION (RURAL REGIONS AND RURAL CENTERS): Sufficient emergency water supply, storage, and conveyance facilities for fire protection, together with adequate access are available, or are provided for, concurrent with development.

Policy 5.7.2.1 Prior to approval of new development, the responsible fire protection district shall be requested to review all applications to determine the ability of the district to provide protection services. The ability to provide fire protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

Objective 5.7.3 LAW ENFORCEMENT: An adequate, comprehensive, coordinated law enforcement system consistent with the needs of the community.

Policy 5.7.3.1 Prior to approval of new development, the Sheriff's Department shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

Goal 5.8 SCHOOL SERVICES: Adequate and comprehensive emergency services, including fire protection, law enforcement, and emergency medical services.

Objective 5.8.1 SCHOOL CAPACITY: Require that adequate school capacity exists and/or appropriate mitigation consistent with State law to serve new residents concurrent with development.

Policy 5.8.1.1 School districts affected by a proposed development shall be relied on to evaluate the development's adverse impacts on school facilities or the demand therefor. No development that will result in such impacts shall be approved unless:

1. To the extent allowed by State law, the applicant and the appropriate school district(s) have entered into a written agreement regarding the mitigation of impacts to school facilities; or
2. The impacts to school facilities resulting from the development are mitigated, through conditions of approval, to the greatest extent allowed by State law.

Objective 5.8.2 LAND FOR SCHOOL FACILITIES: Support the identification and acquisition of land for the purpose of siting new school facilities to serve existing and future residents.

Policy 5.8.2.2 The affected school district shall be relied upon to review development applications to determine the ability of the district to serve the new development. The level of educational services shall not be reduced below acceptable levels as a consequence of new development to the extent permitted by State law.

Policy 5.8.2.4 Specific plans for Planned Communities shall identify and set aside land for new schools approvable under Title 5 Standards to serve new communities. A funding mechanism for site acquisition and construction shall be provided. School site dedication shall be considered as part of the funding mechanism.

Goal 5.9 LIBRARY SERVICES AND CULTURAL FACILITIES: A quality County library system and other cultural facilities consistent with the needs of current and future residents.

Objective 5.9.1 LIBRARY FACILITIES: Maintain existing library facilities and locate new libraries to serve existing and new communities throughout the County.

Goal 9.1 PARKS AND RECREATION FACILITIES: Provide adequate recreation opportunities and facilities including developed regional and community parks, trails, and resource-based recreation areas for the health and welfare of all residents and visitors of El Dorado County.

Objective 9.1.1 PARK ACQUISITION AND DEVELOPMENT: The County shall assume primary responsibility for the acquisition and development of regional parks and assist in the acquisition and development of neighborhood and community parks to serve County residents and visitors.

Policy 9.1.1.1 The County shall assist in the development of regional, community, and neighborhood parks, ensure a diverse range of recreational opportunities at a regional, community, and neighborhood level, and provide park design guidelines and development standards for park development. The following national standards shall be used as guidelines for the acquisition and development of park facilities:

Table 4.10-3
Guidelines for Acquisition and Development of Park Facilities

Park Types	Developed
Regional Parks	1.5 ac/1,000 population
Community Parks	1.5 ac/1,000 population
Neighborhood Parks	2.0 ac/1,000 population
Specific Standards (Neighborhood and Community Parks)	
Cameron Park Community Services District	5.0 ac/1,000 population
El Dorado Hills Community Services District	5.0 ac/1,000 population
Planned Communities	5.0 ac/1,000 population

The parkland dedication/in-lieu fees shall be directed towards the purchase and funding of neighborhood and community parks.

Policy 9.1.1.5 Parkland dedicated under the Quimby Act must be suitable for active recreation uses and:

A. Shall have a maximum average slope of 10 percent;
B. Shall have sufficient access for a community or neighborhood park; and
C. Shall not contain significant constraints that would render the site unsuitable for development.

Objective 9.1.2 COUNTY TRAILS: Provide for a County-wide, non-motorized, multi-purpose trail system and trail linkages to existing and proposed local, State, and Federal trail systems. The County will actively seek to establish trail linkages between schools, parks, residential, commercial, and industrial uses and to coordinate this non-motorized system with the vehicular circulation system.

Policy 9.1.2.5 All discretionary applications may be conditioned to provide an irrevocable offer of a trail easement dedication and construction of trails as designated on the Trails Master Plan provided it can be shown that such trails will serve as loops and/or links to designated or existing trails, existing or proposed schools, public parks and open space areas, and existing or proposed public transit nodes (e.g., bus stops, park and ride lots). Parkland dedication credit shall be given where applicable for provision of land and trail improvements that aid in implementing the Trails Master Plan.

Policy 9.1.2.8 Integrate and link, where possible, existing and proposed National, State, regional, County, city and local hiking, bicycle, and equestrian trails for public use.

Goal 9.2 FUNDING: Secure an adequate and stable source of funding to implement a comprehensive County-wide parks and recreation plan.

Objective 9.2.2 QUIMBY ACT: Land dedicated to the County under the Quimby Act and Quimby in-lieu fees shall continue to be used primarily to meet neighborhood park needs but may assist in meeting the community park standards as well.

Policy 9.2.2.5	The County shall establish a development fee program applicable to all new development to fund park and recreation improvements and acquisition of parklands such that minimum neighborhood, community, and regional park standards are achieved. This fee is in addition to Quimby Act requirements that address parkland acquisition only. The fee will be adjusted periodically to fully fund the improvements identified in the Parks and Capital Improvement Program concurrent with development over a five-year period.

Bass Lake Hills Specific Plan

The BLHSP was adopted November 7, 1995, as a coordinated planning program consistent with the El Dorado County General Plan for the development of 1,196 acres located in eastern El Dorado County. The plan area is located approximately three miles east of the Sacramento County/El Dorado County line, within the underdeveloped eastern portion of El Dorado Hills and adjacent to the west end of Cameron Park. US 50 forms the southern Plan area boundary, and Bass Lake Road transects the area in a north/south direction. Bass Lake is located approximately 0.25-mile north of the plan area. The project site is located within the southern portion of the BLHSP area.

The relevant goals and policies from the BLHSP related to public services and recreation are presented below.

Recreation Facility Standards

Section 5.6.2 of the BLHSP establishes recreation facility standards related to park sizing, location, amenities, landscaping, access, and design. Such standards include, but are not limited to, compliance with the El Dorado County Water Conserving Landscape Standards (Resolution 69-93) and the El Dorado Hills CSD Recreation Facility Master Plan (RFMP) Facility Standards. The BLHSP also specifies that parks shall be subject to oak tree mitigation measures contained therein, which are established in Section 7.5 of the BLHSP and intend to preserve and enhance existing oak trees to the maximum extent possible.

Open Space Policies

Section 5.7.1 of the BLHSP includes open space policies that would apply to the proposed project, including policies related to conservation setbacks, and the limiting of grading and construction activities within open space areas. The policies also specify that all pedestrian paths and trails shall be designed in accordance with standards contained in the El Dorado County Hiking and Equestrian Trails Master Plan. It should be noted that the BLHSP requires all public open space areas to be accessible by fire suppression equipment to the satisfaction of the local fire protection district (in the case of the proposed project, the EDHFD).

The BLHSP policies related to open space are as follows:

1. Open space areas which remain in private ownership shall be encumbered by a conservation setback not open to public access, except where public access easements have been recorded.
2. Except for the limited installation of underground public utilities, water and sewer lines, and construction of maintenance roads and pedestrian paths, grading and construction shall be prohibited within open space areas. Mitigation tree planting is encouraged, as defined in this Plan. Where utilities are installed, grading and vegetation removal shall be the minimum necessary, and shall conform to all policies set forth herein.
3. Construction of all-weather pedestrian paths within public access easements are required within public open space areas where shown.
4. All pedestrian paths and trails shall be designed in accordance with standards contained in the El Dorado County Hiking and Equestrian Trails Master Plan.
5. Public open space areas shall be accessible to fire suppression equipment to the satisfaction of the fire protection district.

Public Service Policies

Sections 5.8 and 5.9 of the BLHSP include policies related to fire protection facilities and sheriff protection services, respectively. For example, the BLHSP requires that the fire department determines that adequate fire protection services could be provided prior to approval of project tentative maps. In addition, Section 5.9 specifies that sheriff protection services shall be provided from the sheriff's office located in the City of Placerville. The main EDCSO is located at 200 Industrial Drive in the City of Placerville; however, the closest substation to the project site is located at 4355 Town Center Boulevard, and would provide initial response.

El Dorado County Code

The relevant sections from the El Dorado County Code related to public services and recreation are presented below.

El Dorado County Parks Ordinance

Chapter 9.46 of the El Dorado County Code ensures the appropriate management, administration, use, and protection of all parks, trails and open space maintained by the County. The chapter sets forth requirements for visitor conduct, resource protection, and regulations for vehicles, domestic animals, fire, and fishing.

Fees for Special Districts

Chapter 13.20 of the El Dorado County Code sets forth development impact mitigation fees collected by the County on behalf of a special district, which is defined in Section 13.20.010 as "a fire improvement district, a community services district, a recreation and park district, or any other public agency authorized by law to provide fire protection, public recreation, or any other community service."

At the request of the special district and in compliance with the Mitigation Fee Act, Government Code Sections 66000 through 66025, the County Board of Supervisors may establish a development impact mitigation fee collected on behalf of the special district upon the issuance of all building permits for development within that district. The special district proposes the amount of the fee, while the Board of Supervisors evaluates the appropriate charging method. For example, as established by Resolution No. 170-2021, the land use fees for fire protection from the EDHFD is $1.62 per sf for multi-family residential development and $1.68 per sf for commercial/retail uses.

Mitigation Fees for Schools

Chapter 110.56 of the El Dorado County Code sets forth mitigation fees for any ordinance rezoning property to a residential use, grant of any discretionary permit for residential use, approval of any tentative subdivision map for residential purposes, and issuance of any building permit for a dwelling unit to provide relief from potential overcrowding in schools. Specific mitigation fees for each school district are discussed in further detail below.

Dedication of Park and Recreational Uses

Section 120.12.090 establishes park dedication requirements for new development projects. When a subdivision proposes or creates lots, the Board of Supervisors may require the dedication of land and/or a payment of fees in lieu of park and recreation development as a condition of approval of the tentative subdivision map if the dedicated land would conform with the County's General Plan and applicable specific plans, and if the dedicated land would serve as park and recreation facilities for the proposed project.

El Dorado County Parks and Trails Master Plan

As directed by the County's General Plan, the El Dorado County Parks and Trails Master Plan was developed for the west slope area of the County. The greater Tahoe Basin area is subject to a separate planning process involving multiple agencies, including, but not limited to, the Tahoe Regional Planning Agency, California Tahoe Conservancy, U.S. Forest Service, and the City of South Lake Tahoe. The County's Parks and Trails Master Plan guides the acquisition, development, and operation of County-owned parks and trails, and addresses the following: the operation of currently owned parks and trails; the provision of parks and trails to serve areas not otherwise served by local park and trail providers; and opportunities to collaborate and assist other regional providers with the ultimate goal of enhancing the availability and recreational value of parks and trails for residents and visitors.

El Dorado County Office of Education

On January 1, 1987, Assembly Bill (AB) 2926 enacted Government Code Sections 65995 and 53080, which authorizes school districts to levy fees to offset the impacts to school facilities from new residential and commercial/industrial construction. As such, the El Dorado County Office of Education requires that new development within the County pay school impact fees. The amount of the fees varies by school district.

School impact fees for the EDUHSD are currently $1.87 per sf for residential development and $0.30 per sf for commercial/industrial construction (with the exception of Rental Self Storage, which is set at $0.04 per sf).[14] The BUSD currently charges $3.54 per sf for residential development, while commercial/industrial fees range between $0.55 and $0.78 per sf.[15] Fees are collected by the El Dorado County Building Services upon issuance of a building permit.

Parks and Recreation Facilities Master Plan

The El Dorado Hills CSD Parks and Recreation Facilities Master Plan (Master Plan) provides a 15-year vision for how parks, recreational facilities, and other programs will be managed in the El

[14] El Dorado Union High School District. *2022 Developer Fee Justification Study.* March 2022.
[15] El Dorado County Office of Education. *Developer Fees.* Available at: https://edcoe.org/administrative-services/developer-fees. Accessed April 2024.

Dorado Hills CSD in response to anticipated growth and changing recreation trends.[16] The Master Plan includes the priorities of residents living in the El Dorado Hills CSD, implementation strategies, and an analysis of funding requirements. The goals identified in the Master Plan include the following: promoting health and wellness; communicating and collaborating with CSD stakeholders; preserving and promoting education about natural areas; and developing and maintaining quality parks, trails, and facilities.

In order to continue providing recreation facilities at a capacity adequate for residents living in the El Dorado Hills CSD area, the Master Plan emphasizes the importance of maintaining partnerships with homeowners associations (HOAs). Such partnerships allow the El Dorado Hills CSD parks and recreational facilities to meet the needs of the current population, and allow for flexibility as needs change and evolve.

4.10.4 IMPACTS AND MITIGATION MEASURES

The section below describes the standards of significance and methodology used to analyze and determine the proposed project's potential project-specific impacts related to public services and recreation. 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 public services and recreation is considered significant if the proposed 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:
    - Fire protection;
    - Police protection;
    - Schools;
    - Parks; and/or
    - Other public facilities.
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; and/or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Method of Analysis

In order 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 recreation planning documents were reviewed, including, but not limited to, the El Dorado County General Plan, the El Dorado County General Plan EIR, and the BLHSP.

[16] El Dorado Hills Community Services District. *El Dorado Hills Community Services District Park and Recreation Facilities Master Plan Update*. Adopted August 2021, Revised March 14, 2024.

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 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*.

Fire protection services for the project site would be provided by the EDHFD by way of the Bass Lake Station (Station #86), located at 3670 Bass Lake Road. The Bass Lake Station is located approximately 0.4-mile northwest of the project site. The potential for both the Project Development Area and Project Buildout to impact fire protection services is discussed in further detail below.

Project Development Area and Project Buildout

The threshold for impacts related to fire protection services, as identified in 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 police protection facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios or performance objectives. Policy 5.1.2.2 of the County's General Plan identifies that the minimum level of service for the fire department is six minutes 90 percent of the time for all emergency calls. The closest EDHFD station is located approximately 0.4-mile northwest of the project site. Therefore, based on the proximity of the fire station to the project site, response times to the site would be within the response time goals. In addition, as discussed in the Existing Environmental Setting section of this chapter, the EDHFD participates in joint dispatching with other fire agencies in El Dorado County, which allows response from the closest fire unit, regardless of jurisdiction. It should be noted that the next closest EDHFD station, Station 85, is located at 1050 Wilson Boulevard, approximately 2.5 miles west of the project site. Station 85 includes a 1,500 gallon per minute (gpm) ladder truck, which is the nearest ladder truck station to the project site and could respond to emergency situations at the proposed hotel and event center.

Furthermore, pursuant to the Board of Supervisors' Resolution No. 170-2021, the EDHFD collects a fire impact fee for new development within the service area. Currently, the EDHFD's fire impact fee is $1.62 per sf for multi-family residential development and $1.68 per sf for retail/commercial development. All fees shall be paid to the EDHFD prior to the issuance of the building permit by all new residential development within the District. Funds collected through the fire impact fees would contribute to the maintenance and operation of existing fire protection service facilities.

Finally, all structures included in the proposed project would be constructed consistent with the California Building Code (CBC) and California Fire Code (CFC). In compliance

with the CBC, the design of all buildings would include the installation and use of automatic fire sprinklers, and fire alarm systems would be incorporated pursuant to CFC requirements. Fire flow for the proposed project would be provided by the proposed water system that would be developed on-site. In addition, the State Minimum Fire Safe Regulations include, but are not limited to, regulations pertaining to the provision of basic emergency access; signing and building numbering; private water supply reserves for emergency fire use; vegetation modification; fuel breaks; and the provision of undeveloped ridgelines. Such features would reduce the potential for fires to occur within the proposed structures, which would reduce the demand for fire protection services from the project site.

Based on the above, the proposed 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 sheriff protection services. Based on the analysis below, the impact is *less than significant*.

The proposed project is located within the jurisdiction of, and would be provided services by, the EDCSO. As described above, the proposed project would be served by the closest substation to the project site, which is located at 4355 Town Center Boulevard, approximately 2.05 miles west of the site. The potential for the Project Development Area and Project Buildout to impact sheriff protection services is discussed in further detail below.

Project Development Area and Project Buildout

Similar to the threshold for impacts related to fire protection services, Appendix G of the CEQA Guidelines identifies impacts related to police protection services as the provision of new or physically altered police protection facilities, the construction of which could cause significant environmental impacts to maintain acceptable service ratios or performance objectives. The County's General Plan EIR finds that EDCSO does not have an established response time goal for either rural areas, as response times to sites would vary dependent on the priority of the call and the location from which the deputies are responding. However, as shown in Table 4.10-2, the EDCSO maintains an eight-minute response time goal for 80 percent of the population within community regions. As discussed further in Chapter 3, Project Description, of this EIR, the proposed project includes a General Plan Amendment to incorporate the project site into the Community Region. Therefore, the EDCSO's community region eight-minute response time threshold is applied to the proposed project. Presuming the

deputies are responding to the proposed project from the closest substation, response times would be approximately six to seven minutes, depending on the specific route and traffic conditions. In addition, the EDCSO has indicated that response times to the project site would be adequate, and the proposed project would not require expansion of existing or construction of new sheriff facilities.[17] Therefore, the proposed project would not result in substantial adverse physical impacts related to sheriff protection services.

Conclusion

Based on the above, the proposed project would not result in a need for new, or improvements to existing, sheriff protection facilities, construction of which could cause significant environmental impacts, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.10-3 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 schools. Based on the analysis below, the impact is *less than significant*.

The project site would be served by the BUSD and EDUHSD, and is located within the boundaries of the Blue Oak Elementary School and Camerado Springs Middle School attendance areas for the BUSD and the far westerly limits of the Ponderosa High School attendance area for the EDUHSD. The potential for the Project Development Area and Project Buildout to impact school facilities are discussed in further detail below.

Project Development Area

A total of 112 multi-family residential dwelling units would be developed within the Project Development Area. Based on a project-specific population calculation prepared by EPS, the Project Development Area could result in a maximum population increase of 274 new residents.[18] However, as discussed further in Chapter 3, Project Description, of this EIR, 56 cottages would be available for rent on a daily or extended stay basis, and the remaining 56 cottages would be deed restricted for hotel employee housing. Therefore, because half the cottages would be used for temporary stays that would not increase the project area population, a maximum increase of 137 residents would occur as a result of development within the Project Development Area.

[17] Schlag, Leslie, Sergeant, El Dorado County Sheriff's Office. *Personal Communication [email] with Bret Sampson, Planning Manager, El Dorado County*. March 20, 2024.
[18] EPS. *Town & Country Village Fiscal Impact Analysis*. November 8, 2023.

The EDUHSD uses a districtwide student yield of 0.1279 students per household,[19] which represents an average student generation yield rate of both single- and multi-family units. Based on the EDUHSD student yield rate, development of the Project Development Area could result in eight new high school students (56 households x 0.1279). Based on a review of available BUSD documentation, the student generation rate has been assumed to be 0.4 K-5 students per household and 0.1 sixth through eighth grade students per household. Therefore, development of the Project Development Area could result in 23 K-5 students and six sixth through eighth grade students. Overall, the Project Development Area could result in a total of 37 new students, comprised of eight students in the EDUHSD and 29 students in the BUSD. As previously discussed, recent annual demographic and enrollment projection reports for the EDUHSD and BUSD schools anticipate over 300 available seats for Blue Oak Elementary School, a range of 458 to 516 available seats for Camerado Springs Middle School, and over 600 available seats for Ponderosa High School.[20,21] Therefore, the schools within the EDUHSD and BUSD that would serve the proposed project would be able to accommodate any new students generated by the proposed project.

In addition, as previously discussed in the Regulatory Context section of this chapter, school impact fees for the EDUHSD are currently $1.87 per sf for residential development and $0.30 per sf for commercial/industrial construction. The BUSD currently charges $3.54 per sf for residential development, while commercial/industrial fees range between $0.55 and $0.78 per sf. The proposed project would be required to pay all applicable fees upon issuance of a building permit. 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]).

Based on the above, development of the Project Development Area would result in a less-than-significant impact.

Project Buildout

Full buildout of the proposed project could develop a total of 814 multi-family residential dwelling units within the BUSD and EDUHSD, comprised of the 112 cottages discussed above and the additional 702 units associated with the Program Study Area. Based on the population estimates provided by EPS for the proposed project, the Program Study Area could result in a maximum population increase of 1,532 new residents. Based on the EDUHSD student yield rate, the Program Study Area could result in 90 new high school students (702 units x 0.1279 student yield rate). Based on the BUSD student generation rates, the Program Study Area could result in a total of 281 new BUSD students, including 352 K-5 students (702 x 0.4) and 71 students in sixth to eighth grade (702 x 0.1). However, it should be noted that 150 units associated with the Program Study Area would be reserved for senior housing. In addition, 56 of the cottages discussed above would be reserved for short-term rental

[19] El Dorado Union High School District. *2022 Developer Fee Justification Study.* March 2022.
[20] Buckeye Union School District. *2023/24 Demographics and Enrollment Projections.* November 2023.
[21] El Dorado Union High School District. *2022/23 Demographics and Enrollment Projections.* November 2022.

uses. Given the nature of the tenants that would be staying within the 56 short-term cottages and 150 senior units, such units would not be anticipated to result in an increase in students, and student generation rates would likely be lower.

Similar to the above discussion, the EDUHSD and BUSD schools anticipate over 300 available seats for Blue Oak Elementary School, a range of 458 to 516 available seats for Camerado Springs Middle School, and over 600 available seats for Ponderosa High School, and could therefore accommodate any new students generated by the proposed project. In addition, similar to the above discussion, all construction associated with Project Buildout would be required to pay all applicable fees upon issuance of a building permit. Pursuant to SB 50, payment of the necessary school impact fees for the project would be considered full and satisfactory CEQA mitigation.

Therefore, similar to the above discussion, Project Buildout would not result in substantial adverse physical impacts related to the construction of school facilities.

Conclusion

Based on the above, the proposed 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, in order to maintain acceptable service ratios, response times, or performance objectives for schools. Thus, 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 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 parks; 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, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Based on the analysis below, the impact is *less than significant*.

As discussed above, the nearest parks to the project site are the Christa McAuliffe Park and Dave West Park, which are located approximately 1.25 miles east of the project site. In addition, the Bass Lake Regional Park is located approximately 1.51 miles north of the project site. The potential for the Project Development Area and Project Buildout to impact parks or other public recreational facilities are discussed in further detail below.

Project Development Area

According to the County's General Plan EIR, El Dorado County maintains a standard of five acres of parkland per 1,000 residents. The Project Development Area would include a total of 112 cottages. However, 56 cottages would be used as short-term rentals and would not result in a long-term population increase. The remaining 56 cottages would be used as employee housing. Based on the El Dorado Hills CSD rate for multi-family units of 2.8 persons per unit,[22] the 112 employee cottages would be anticipated to house approximately 314 residents on the project site. Such residents could increase demand on existing parks and recreational facilities, potentially requiring provision of new facilities or expansion of existing facilities.

The Project Development Area includes development of 4.4 acres of open space, largely comprised of 38 percent of the Project Development Area north of Country Club Drive along the existing intermittent drainage. As discussed further in Chapter 3, Project Description, of this EIR, the Project Development Area would include a new Class I bike path located on the historic Clarksville Toll Road alignment as described in the BLHSP, a Class I bike path bridge crossing Bass Lake Road to connect to a planned bike path on the western side of the roadway (see Figure 3-13 in Chapter 3, Project Description), and four-foot-wide pedestrian trails in the northern portion of the project site. It should be noted that the existing Class I bike path, located on Old Country Club Road south of the project site, would be preserved. The Project Development Area would also include passive recreation features, such as landscaping, water features including a pond and channel, as well as patio and terrace areas.

Based on the County's requirement of five acres of park land per 1,000 residents, the proposed project would be required to provide a minimum of approximately 1.57 acres of parks and recreation areas (314 estimated residents x 0.005 acres/resident). While the Project Development Area would include 4.4 acres of open space and the associated passive recreation facilities, a formally dedicated park space is not proposed. Therefore, the proposed project would not meet County parkland requirements, and payment of fees in lieu of parkland dedication would be required.

Consistent with El Dorado CSD Policy 6110.30 and Policy 6110.40, parkland dedication is based on the number of proposed dwelling units and CSD staff shall evaluate all proposed parkland dedications. The Project Development Area includes 112 cottages, as well as three parcels reserved for multi-family residential without a specific development plan. Without the total number of dwelling units, the exact amount of parkland required to be dedicated cannot be calculated. Per district policy 6110.20, the sum of all fees paid in-lieu of land dedication shall be determined by CSD staff in consultation with the County Assessors' Office, County Planning Department and/or an approved private appraiser. The proposed project shall work with CSD staff on a Parkland Dedication Agreement (PDA) and/or satisfy parkland dedication requirements. Payment of all applicable in-lieu fees would also ensure consistency with General Plan Objective 9.1.1 and associated Policy 9.1.1.1, as well as with Objective 9.2.2. The funds gathered from in-lieu fees would contribute to the cost of

[22] El Dorado Hills Community Services District. *A General Plan Amendment, Specific Plan Amendment (SP-R21-0002), Planned Development Permit (PD-R19-0003), Rezone (Z21-0013), and Tentative Map (TM22-0005) FOR THE TOWN & COUNTRY VILLAGE EL DORADO.* November 6, 2022.

maintaining existing parks and acquiring new parkland. Therefore, payment of all applicable fees would reduce any potential impacts to park and recreational facilities associated with the Project Development Area.

Project Buildout

As discussed further in Chapter 3, Project Description, of this EIR, Project Buildout would include an additional 702 residential dwelling units. Based on the 2.8 persons per multi-family unit rate provided by the El Dorado Hills CSD,[23] Project Buildout would be anticipated to house approximately 2,123 residents on the project site. Based on the County's five-acre per 1,000 residents standard, at Project Buildout, a total of 10.62 acres of parkland would be required.

Project Buildout would include an additional 3.2 acres of open space to the 4.4 acres associated with the Project Development Area for a total of 7.9 acres of open space. Similar to the discussion above, while Project Buildout would include 7.9 acres of open space and passive recreation facilities, a formally dedicated park space is not proposed and payment of fees in lieu of parkland dedication would be required. Payment of all applicable in-lieu fees would ensure consistency with the County's General Plan and Municipal Code, and would reduce any potential impacts to park and recreational facilities associated with the proposed project. Therefore, Project Buildout would not result in substantial adverse physical impacts related to parks and recreational facilities.

Conclusion

Given that the project would include development of open space and passive recreation facilities, as well as payment of fees to meet the demand created by future residents, the project would not be anticipated to substantially increase demand on existing or future parks or recreational facilities in the surrounding area. As such, the proposed 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. Thus, 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 other public facilities. Based on the analysis below, the impact is *less than significant*.

[23] El Dorado Hills Community Services District. *A General Plan Amendment, Specific Plan Amendment (SP-R21-0002), Planned Development Permit (PD-R19-0003), Rezone (Z21-0013), and Tentative Map (TM22-0005) FOR THE TOWN & COUNTRY VILLAGE EL DORADO.* November 6, 2022.

El Dorado County maintains public facilities such as public libraries and community buildings, which could potentially be used by residents of the proposed project. The nearest library to the proposed project site is the Cameron Park Library located at 2500 Country Club Drive, approximately 1.26 miles east of the project site. The potential for the Project Development Area and Project Buildout to impact governmental services and/or facilities, such as public libraries, is discussed in further detail below.

Project Development Area and Project Buildout

As discussed further in Chapter 3, Project Description, of this EIR, the proposed project would include a museum on the gold rush era and settlers of the time. While the proposed project does not include library facilities, the proposed museum includes two lower floors containing restaurants and outdoor spaces for events, such as music events, weddings, conferences, or family gatherings. The museum portion would be open to the public one to two days per week. Given that a portion of the proposed development is intended for public use, additional demand for existing facilities is unlikely to result from the development of the proposed project. Furthermore, the project applicant would be required to pay development impact fees to the County, which funds library facilities through CSA 10.[24] Payment of all applicable fees would sufficiently mitigate the need for any expansion of existing or construction of new governmental facilities.

Finally, given the size of the proposed development compared to the existing population of El Dorado County, any additional demand generated by the residents of the proposed residential units would be relatively minor. Therefore, the proposed project would not result in substantial adverse physical impacts related to the construction of governmental services and/or facilities.

Conclusion

Based on the above, the proposed 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, in order to maintain acceptable service ratios, response times, or performance objectives for maintenance of public facilities, including libraries, or for other government services. 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.

[24] El Dorado County. *Fiscal Year 2022-23 Recommended Adopted Budget Revisions.* September 20, 2022.

Additional detail regarding the cumulative project setting can be found in Chapter 5, Statutorily Required Sections, of this EIR.

4.10-6 Cumulative impacts to public services. Based on the analysis below, the cumulative impact is *less than significant*.

The following discussion includes a cumulative analysis of both the Project Development Area and Project Buildout.

Project Development Area and Project Buildout

Potential cumulative impacts related to fire and police protection services, schools, public services and government facilities, and parks and recreation are discussed further below.

Fire Protection Services

Neither the County's General Plan EIR nor the Bass Lake EIR identified any cumulative impacts related to fire protection. The General Plan EIR concluded that impacts would to be reduced to less-than-significant levels through implementation of the mitigation measures included therein. Such mitigation measures would require development projects to be sited in a manner that avoids adjacent incompatible land uses and would subject such projects to a review of land use compatibility by the County. The proposed project does not include or require construction of any additional fire protection facilities.

As discussed above, the response times to the proposed project would be within the EDHFD's response time goals, and the EDHFD would be capable of serving the project site with existing equipment and facilities. In addition, the project would be required to pay a fire impact fee to the County. Furthermore, development within the project site, as well as other future development throughout El Dorado County, would be required to comply with all applicable regulations imposed by EDHFD and the CFC. Based on the above, the proposed project would result in a less-than-significant cumulative impact related to fire protection services.

Sheriff Protection Services

Neither the County's General Plan EIR nor the Bass Lake EIR identified any cumulative impacts related to police protection services. Rather, the General Plan EIR concluded that impacts would be reduced to less-than-significant levels through implementation of the mitigation measures included therein. Such mitigation measures would require development projects to be sited in a manner that avoids adjacent incompatible land uses and would subject such projects to a review of land use compatibility by the County. The proposed project does not include or require construction of any additional sheriff protection facilities.

The EDCSO has indicated that new or physically altered law enforcement facilities would not be needed to adequately serve the proposed project.[25] In addition, though response times are dependent upon the location of patrol officers at the time of the

[25] Schlag, Leslie, Sergeant, El Dorado County Sheriff's Office. *Personal Communication [email] with Bret Sampson, Planning Manager, El Dorado County*. March 20, 2024.

emergency call, on average, response times to the project site would be not be substantially longer than response times to other areas within the EDCSO jurisdiction. As a result, the proposed project would not result in a need for new, or improvements to existing, sheriff protection facilities, construction of which could cause significant environmental impacts. Similar to the proposed project, other future development within the region would be required to address impacts related to sheriff protection services on a project-by-project basis. Based on the above, the proposed project, in combination with future development occurring under buildout of El Dorado County, would have a less-than-significant impact to sheriff protection services.

Schools

The Bass Lake EIR identified a significant cumulative impact related to new development outpacing the construction of school facilities. In addition, cumulative buildout within the County and surrounding areas could result in overcrowding at schools in the area. However, each individual development would be required to pay SB 50 school impact fees, similar to the proposed project, which would contribute to the facilitation of school expansions in order 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 proposed project, in combination with future development occurring under buildout of El Dorado County, 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 proposed project would include the provision of on-site open space areas and passive recreation facilities, as well as payment of the required park fees, and would not result in a substantial 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. Future development within the El Dorado Hills CSD and El Dorado County would similarly be required to comply with the County's park dedication requirements and applicable fees. Therefore, the proposed project, in combination with future buildout in the County, would result in a less-than-significant cumulative impact related to parks and recreation.

Public Facilities and Government Services

As discussed above, given the size of the proposed development, any additional demand on libraries or other public facilities and services generated by the proposed project would be relatively minor, and is not likely to result in the alteration of existing facilities or the construction of new facilities. The proposed project, as well as other development in the unincorporated County, would be required by the County to pay development impact fees, which would help to fund and sustain public facilities and services, including libraries and general government facilities, within El Dorado County. Therefore, the proposed project, in combination with future development occurring under buildout of the County's General Plan and the probable future projects, would result in a less-than-significant cumulative impact.

Conclusion

Based on the above, the proposed project, in combination with future development occurring under buildout of the El Dorado County General Plan, would result in a ***less-than-significant*** cumulative impact related to public services and recreation.

Mitigation Measure(s)

None required.

4.11. TRANSPORTATION

4.11. TRANSPORTATION

4.11.1 INTRODUCTION

The Transportation chapter of the EIR discusses the existing transportation conditions within the project vicinity, including consideration of potential impacts related to transit facilities and services, bicycle facilities, pedestrian facilities, vehicle miles traveled (VMT), and traffic safety issues. The information contained within this chapter is primarily based on the Transportation Impact Study (TIS) prepared for the proposed project by T. Kear Transportation Planning and Management, Inc. (T. Kear) (see Appendix P),[1] as well as the El Dorado County General Plan,[2] the El Dorado County General Plan EIR,[3] and the Bass Lake Hills Specific Plan (BLHSP)[4] and Bass Lake Road Study Area Program EIR (Bass Lake EIR).[5]

4.11.2 EXISTING ENVIRONMENTAL SETTING

The section below describes the physical and operational characteristics of the existing transportation system within the study area, including the surrounding roadway network, transit, bicycle and pedestrian facilities.

Existing Roadways

The following section provides a summary of the existing roadways within the project vicinity.

U.S. Highway 50

U.S. Highway 50 (US 50) is the primary east-west freeway serving El Dorado County. From the Sacramento County line to the City of Placerville, US 50 is a four-lane freeway with an eastbound truck-climbing lane on the steep Bass Lake grade and short sections of high occupancy vehicle (HOV) lanes from the County line to El Dorado Hills Boulevard.

US 50 transitions to a conventional four-lane highway through the City of Placerville with traffic signals at three major intersections. East of the City and extending into the Lake Tahoe Basin, US 50 is an expressway with unsignalized intersections east to Ice House Road near the Town of Riverton, where the highway narrows to two lanes with passing opportunities generally limited to locations with passing lanes and turnouts.

Bass Lake Road

Bass Lake Road is the principal road in the BLHSP planning area and serves as the primary means of entry and exit, connecting to Green Valley Road located north of Bass Lake, and to US 50 at the south. Bass Lake Road is generally a two-lane road, but expands to a four-lane road at its busiest intersection with Serrano Parkway, which extends north as an arterial road to the Silva Valley Parkway interchange.

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1 T. Kear Transportation Planning and Management, Inc. *CEQA Transportation Impact Study Town and Country Village Bass Lake Hills, California*. March 12, 2024. Revised April 22, 2024.
2 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.
3 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.
4 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
5 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

Serrano Parkway

Serrano Parkway is a two-lane roadway that extends east to west through a residential portion of El Dorado Hills. Serrano Parkway is approximately 2.3 miles long and connects Bass Lake Road to Silva Valley Parkway.

Silva Valley Parkway

Silva Valley Parkway is a four-lane roadway that runs north to south through El Dorado Hills. Silva Valley Parkway is approximately 3.8 miles long and connects to Green Valley Road at the northernmost point and crosses over US 50 at its southernmost point, beyond which the road is known as White Rock Road.

Country Club Drive

Country Club Drive is a two-lane roadway extending east through the northern portion of the project site. Country Club Drive travels through existing single-family residential development to connect Bass Lake Road to Cameron Park Drive, approximately 3.4 miles to the east.

Old Country Club Drive / Frontage Road

Along the southern project boundary, a former roadway known as Old Country Club Drive has been converted into a Class I bike path that runs east to west parallel to US 50. The existing bike path connects to Country Club Drive at the eastern end. The western end, just north of US 50, connects to approximately 400 feet of paved right-of-way known as Frontage Road, which in turn connects to the southern end of Bass Lake Road. Current uses of Frontage Road are limited to emergency vehicle access.

Pedestrian, Bicycle and Transit Facilities

The sections below describe the existing pedestrian, bicycle and transit facilities located within the vicinity of the project site.

Sidewalks and Paths

Due to the rural nature of the project site and adjacent areas, pedestrian facilities are limited. Apart from Class I bike trails, which are used as multi-purpose trails throughout El Dorado County, the surrounding area lacks sidewalks and other pedestrian amenities. However, the signalized Bass Lake Road/Country Club Drive intersection includes crosswalks with protected pedestrian spaces.

Bicycle Facilities and Trails

Bicycle facilities are organized under the following classifications:

- Class I Bikeway (Bicycle Path) provides an off-street pathway for pedestrians and bicyclists, and no automobiles.
- Class II Bikeway (Bicycle Lane) provides a dedicated on-street space for bicyclists, delineated by white strips and signage.
- Class III Bikeway (Bicycle Route) provides a designated route for bicyclists that share travel lanes with automobiles.
- Class IV Bikeway (Separated Bikeways) provides a fully protected on-street space for bicyclists. Protection is provided by planters, parked cars, raised curbs, or flexible posts.

Existing bicycle facilities in the vicinity of the project site include the Class I bikeway south of the project site, and Class II bike lanes on Bass Lake Road and Country Club Drive. Such facilities were included under the 2020 conditions of the County's Active Transportation Plan (see Figure 4.11-1) as "proposed" improvements, and have since been constructed.[6] It should be noted that, unlike what was anticipated by the Active Transportation Plan, the Class II bike lanes on Bass Lake Road do not pass under US 50.

Transit System

El Dorado Transit is the primary public transit service provider in El Dorado County. El Dorado County Transit services extend within and between communities throughout the County, including connections into the City of Folsom and limited commuter service to the City of Sacramento. Within the vicinity of the proposed project, El Dorado Transit provides:

- Limited commuter service during morning and afternoon commute periods connecting a park-and-ride lot located adjacent to the intersection of Bass Lake Road and Country Club Drive with the cities of Placerville and downtown Sacramento.
- Hourly service from approximately 6:00 AM to 6:00 PM from the Cambridge Road park-and-ride lot to several locations in the City of Folsom, including the Iron Point Light Rail Station, Ingersoll Way and Parker Drive, Intel, Kaiser Permanente, and Folsom Lake College. The hourly service also provides connections to Red Hawk Casino and various public locations within the City of Placerville.
- Dial-a-ride services are also provided within many portions of El Dorado County, including El Dorado Hills, Bass Lake Hills, and Cameron Park.

It should be noted that a new park-and-ride facility is located west of the Bass Lake Road/Country Club Drive intersection, which may eventually serve as a future bus stop. The County's 2023 Capital Improvement Program includes funds for park-and-ride facilities and other transit capital expenditures in Project 36109004.[7]

Vehicle Miles Traveled

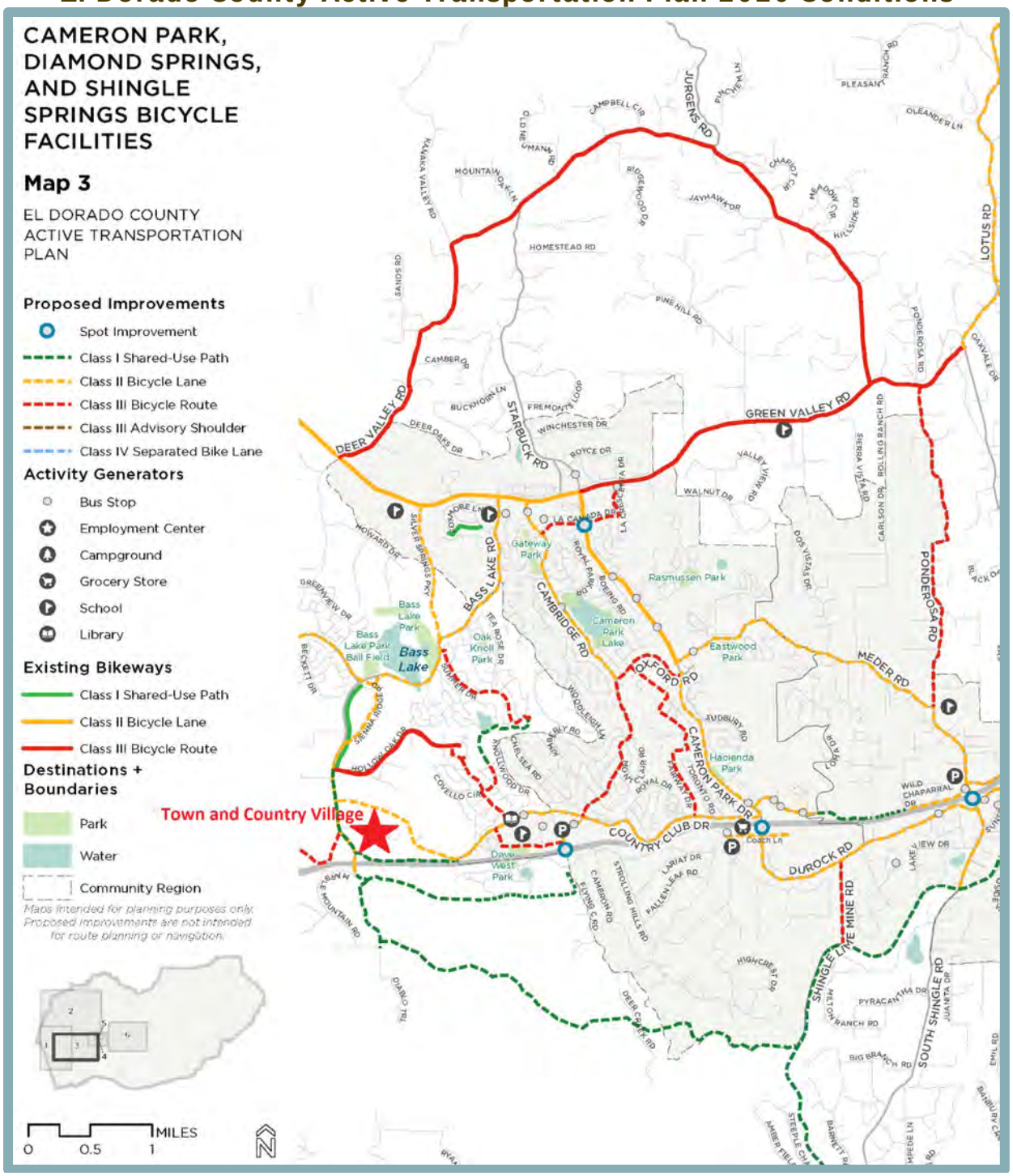
Pursuant to CEQA Guidelines Section 15064.3, VMT is the primary metric used to identify transportation impacts under CEQA. VMT is a metric that accounts for the number of vehicle trips generated and the length or distance of those trips. VMT does not directly measure traffic operations; instead, VMT is a measure of transportation network use and efficiency, especially when expressed as a function of population (i.e., VMT per capita). VMT tends to increase as land use density decreases and travel becomes more reliant on the use of single-passenger vehicles.

El Dorado County has developed a Travel Demand Model (TDM) based on an expanded version of the Sacramento Metropolitan (SACMet) TDM originally developed by the Sacramento Area Council of Governments (SACOG).

The El Dorado County TDM provides details related to road networks and land uses added within neighboring portions of the County. The El Dorado County TDM is a traditional trip based, four-step (trip generation, distribution, mode choice, and assignment) model with a 2018 base year and 2040 horizon year used for evaluating local development projects.

6 El Dorado County Transportation Commission. *El Dorado County Active Transportation Plan.* 2020.
7 El Dorado County Department of Transportation. *Adopted 2023 Capital Improvement Program.* June 6, 2023.

Figure 4.11-1
El Dorado County Active Transportation Plan 2020 Conditions



According to the TIS, and based on the El Dorado County TDM, the existing 2018 base year VMT in unincorporated El Dorado County is 22.1 VMT per resident for home-based trips and 26.3 VMT per office/hotel/industrial employee. In addition, VMT in unincorporated El Dorado County for the 2040 horizon year is anticipated to be 19.5 VMT per service population for retail trips.

Collision History

The California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS) data base, as implemented through the University of California (UC) Berkely Transportation Injury Mapping System (TIMS), was used to identify collisions in the vicinity of the project site.

A review of five years of collision data, from 2018 to 2022, identified eight collisions on Bass Lake Road in the vicinity of the project site. Collisions along the portion of Country Club Drive within the project site were not reported. The closest collision on Country Club Drive occurred east of Tierra De Dios Drive, which is located 0.25-mile to the east of the project site. Further details on the Bass Lake Road collisions are as follows:

- Two Collisions at the Bass Lake Road/Country Club Drive intersection:
  - A head-on collision involving two vehicles on May 22, 2019, at 4:20 PM due to driving on the wrong side of road (injury).
  - A northbound rear-end collision involving three vehicles on May 9, 2020, at 12:30 PM due to unsafe speed (possible injury).
- Five Collisions at the Bass Lake/US 50 interchange:
  - A westbound collision between a single vehicle and a fixed object on January 13, 2018, at 4:50 AM due to driving under the influence (possible injury).
  - An eastbound vehicle broadsided a southbound vehicle on March 18, 2018, at 5:20 PM due to failure to yield right of way (possible injury).
  - A northbound rear-end collision involving two vehicles on June 6, 2019, at 10:35 AM due to unsafe speed (possible injury).
  - A westbound rear-end collision involving two vehicles on January 27, 2020, at 5:20 PM due to unsafe starting or backing (possible injury). It should be noted that there are duplicate records of this collision.
  - A head-on collision involving two vehicles just north of the interchange on October 30, 2020, at 2:55 PM due to driving on the wrong side of road (injury).

An additional collision was identified at the Bass Lake Road/westbound ramp intersection. However, the collision occurred 2,640 feet to the east, near the top of the offramp, and was a single vehicle overturn due to unsafe speed with four possible injuries. Due to the distance from the project site and the unique nature of the incident, the eighth Bass Lake Road collision is not considered relevant to the proposed project.

4.11.3 REGULATORY CONTEXT

Existing transportation policies, laws, and regulations that would apply to the proposed project are summarized below and provide a context for the impact discussion related to the project's consistency with the applicable regulatory conditions. It should be noted that federal plans, policies, regulations, or laws related to transportation and circulation are not directly applicable to the proposed project. Rather, the analysis presented herein focuses on State and local

regulations, which govern the existing regulatory environment related to transportation and circulation at the project level.

State Regulations

The following are the regulations pertinent to the proposed project at the State level, organized chronologically.

Senate Bill 743

In 2013, Senate Bill (SB) 743 was passed to amend Sections 65088.1 and 65088.4 of the Government Code, amend Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3 of the Public Resources Code (PRC), to add Section 21155.4 to the PRC, to add Chapter 2.7 (commencing with Section 21099) to Division 13 of the PRC, to add and repeal Section 21168.6.6 of the PRC, and to repeal and add Section 21185 of the PRC, relating to environmental quality. In response to SB 743, the Office of Planning and Research (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 level of service (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, 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:[8]

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 greenhouse gas (GHG) emission reduction goals.

[8] Caltrans. *Vehicle Miles Traveled-Focused Transportation Impact Study Guide*. May 20, 2020.

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.

California Air Pollution Control Officers Association

The California Air Pollution Control Officers Association (CAPCOA) is a non-profit association of the Air Pollution Control Officers from all 35 local air quality agencies throughout California. Given the connection between air pollution emissions and the use of motor vehicles, the CAPCOA has issued recommendations that can be used by development projects to reduce project-wide VMT. One such document, the Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, provides methods to quantify the efficacy of certain methods in their ability to reduce VMT and, in turn, GHG emissions.

Local Regulations

Local rules and regulations applicable to the proposed project are discussed below.

El Dorado County General Plan

The following goals and policies from the County's General Plan apply to the proposed project.

Goal TC-1 To plan for and provide a unified, coordinated, and cost-efficient countywide road and highway system that ensures the safe, orderly, and efficient movement of people and goods.

Policy TC-1b In order to provide safe, efficient roads, all roads should incorporate the cross sectional road features set forth in Table TC-1 (included as Table 4.11-1 below).

Policy TC-1p The County shall encourage street designs for interior streets within new subdivisions that minimize the intrusion of through traffic on pedestrians and residential uses while providing efficient connections between neighborhoods and communities.

Policy TC-1q The County shall utilize road construction methods that seek to reduce air, water, and noise pollution associated with road and highway development.

Policy TC-1w New streets and improvements to existing rural roads necessitated by new development shall be designed to minimize visual impacts, preserve rural character, and ensure neighborhood quality to the extent possible consistent with the needs of emergency access, on street parking, and vehicular and pedestrian safety.

Table 4.11-1
General Roadway Standards for New Development by Road Classification

Road Classification	ACCESS CONTROL		CROSS SECTION	
	Public Roads *Intersections (Or interchanges)*	Abutting Property *Driveways and Private Roads*	ROW	Roadway Width
Six-Lane Divided Road	½ mile minimum spacing	Restricted	130’	108’
Four-Lane Divided Road	½ mile minimum spacing	Limited	100’	84’
Four-Lane Undivided Road				
Community Regions	½ mile minimum spacing	Limited	80’	64’
Rural Centers and Rural Regions	½ mile minimum spacing	Limited	80’	64’
Major Two-Lane Road				
Community Regions	¼ mile minimum spacing	Limited	60’	40’
Rural Centers and Rural Regions	¼ mile minimum spacing	Permitted	60’	40’
Local Road	¼ mile minimum spacing	Permitted	60’	Varies

Notes:

1. Access control and cross sections are desired standards. Details and waiver provisions shall be incorporated to the Design and Improvement Standards Manual (El Dorado County 1990).
2. Notwithstanding these highway specifications, additional right-of-way may be required for any classification when a road coincides with an adopted route for an additional public facility (e.g., transit facilities, bikeways, or riding and hiking trails), or a scenic highway.
3. The County may deviate from the adopted standards in circumstances where conditions warrant special treatment of the road. Typical circumstances where exceptions may be warranted include:
    a. Extraordinary construction costs due to terrain, roadside development, or unusual right-of-way needs; or
    b. Environmental constraints that may otherwise entirely preclude road improvement to the adopted standards, as long as environmental impacts are mitigated to the extent feasible.
4. Travel ways for all highways should be 12 feet wide. Turning lanes should be 12 feet wide, but may be reduced to 10 feet based on topographical or right-of-way constraints. All travel ways on roads should be paved.

Source: El Dorado County, General Plan [Table TC-1], July 2004, Amended August 2019.

	Policy TC-1x	To reduce heavy truck traffic in residential areas and near noise sensitive land uses associated with discretionary projects, the County will review truck routes to ensure traffic noise impacts are minimized.
Goal TC-X	To coordinate planning and implementation of roadway improvements with new development to maintain adequate levels of service on County roads.	
	Policy TC-Xc	Developer paid traffic impact fees combined with any other available funds shall fully pay for building all necessary road capacity improvements to fully offset and mitigate all direct and cumulative traffic impacts from new development during peak hours upon any highways, arterial roads and their intersections during weekday, peak-hour periods in unincorporated areas of the county. (Resolution 201-2018, September 25, 2018)
	Policy TC-Xg	Each development project shall dedicate right-of-way, design and construct or fund any improvements necessary to mitigate the effects of traffic from the project. The County shall require an analysis of impacts of traffic from the development project, including impacts from truck traffic, and require dedication of needed right-of-way and construction of road facilities as a condition of the development. This policy shall remain in effect indefinitely unless amended by voters.
	Policy TC-Xh	All subdivisions shall be conditioned to pay the traffic impact fees in effect at the time a building permit is issued for any parcel created by the subdivision.
Goal TC-4	To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.	
	Policy TC-4e	The County shall require that rights-of-way or easements be provided for bikeways or trails designated in adopted master plans, as a condition of land development when necessary to mitigate project impacts.
	Policy TC-4g	The County shall support development of facilities that help link bicycling with other modes of transportation.
	Policy TC-4i	Within Community Regions and Rural Centers, all development shall include pedestrian/bike paths connecting to adjacent development and to schools, parks, commercial areas and other facilities where feasible. In Rural Regions, pedestrian/bike paths shall be considered as appropriate.
Goal TC-5	To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.	

Policy TC-5b In commercial and research and development subdivisions, curbs and sidewalks shall be required on all roads. Sidewalks in industrial subdivisions may be required as appropriate.

Goal TC-9 To support the development of complete streets where new or substantially improved roadways shall safely accommodate all users, including bicyclist, pedestrians, transit riders, children, older people, and disabled people, as well as motorist.

Policy TC-9a Incorporate circulation concepts that accommodate all users in new developments as appropriate.

Bass Lake Hills Specific Plan

The BLHSP was adopted November 7, 1995, as a coordinated planning program consistent with the El Dorado County General Plan for the development of 1,196 acres located in eastern El Dorado County.

The relevant goals and policies from the BLHSP related to transportation are presented below.

Circulation and Trail Standards

Section 4.13 of the BLHSP presents general circulation and trail standards related to pedestrian and bike lane connections, trails, local road connections and design, and the relationship between roadways and open spaces. Such standards include, but are not limited to, compliance with Caltrans requirements for parking lots, having streetscape plans reviewed and approved by the El Dorado Hills Community Services District (CSD) and the County as part of tentative map approval, prohibiting parking on Bass Lake Road and primary local roads, and specifies that streets shall conform to topography and avoid tree removal.

In addition, the BLHSP establishes that all street and landscaping improvements shall be funded and maintained in accordance with the Public Facility Financing Plan (PFFP) described in Section 9.4 of the BLHSP. It should be noted that the PFFP was based on conceptual infrastructure plans and was subject to adjustments as more detailed information became available.

El Dorado County Code

Title 12 of the El Dorado County Code includes regulations related to County streets, sidewalks, and public spaces, including standards for road encroachments to protect members of the public traveling on public roads. In addition, Chapter 12.28 of the El Dorado County Code establishes the County's traffic impact fee program, which collects funds for roadway improvements including, but not limited to, new roadways, roadway widenings, intersection improvements, and transit.

Transportation Impact Study Guidelines

In 2008, the El Dorado County Department of Transportation produced the Traffic Impact Study Protocols and Procedures (2008 Protocols) to help standardize the format and methodology used in traffic impact studies associated with new development projects. In November 2014, the 2008 Protocols were revised by the El Dorado County Community Development Agency to the current Transportation Impact Study Guidelines to ensure that the impacts of development projects are addressed consistently with the policies established in the adopted County General Plan. The 2014 update acknowledged that the environmental analysis of a project would require study of all modes of transportation, as opposed to just analyzing motorized vehicles. In addition, the Traffic

Impact Study Guidelines include an outline of the expected TIS format, citations from State law and County General Plan policies, and appendices with applicable information.

County Resolution 141-2020

County Resolution 141-2020 was adopted by the County Board of Supervisors in October 2020. The resolution establishes the County VMT thresholds of significance for the purpose of analyzing transportation impacts under CEQA. Specifically, Resolution 141-2020 provides that the County shall follow OPR guidance. Consistent with OPR's Technical Advisory, the Board of Supervisors found that a proposed project that exceeds a VMT level of 15 percent below the existing VMT per capita threshold may indicate a significant transportation impact.

Additionally, the resolution determines that there is a presumption of less-than-significant impacts for:

- Projects that generate or attract fewer than 100 trips per day, consistent with OPR's determination of projects that generate or attract fewer than 110 trips per day. The County further reduced the threshold to 100 trips in order to remain consistent with General Plan Policy TC-Xe;
- Projects that are within 0.5-mile of either a major transit stop, as defined in PRC Section 21064.3, or a high-quality transit corridor, as defined in PRC Section 21155 (consistent with CEQA Guidelines Section 15064.3[b][1] and OPR's Technical Advisory); and
- 100 percent affordable residential development, including moderate-, low-, and very-low-income housing categories as defined in the Regional Housing Needs Assessment, consistent with OPR's Technical Advisory.

El Dorado County Transit Authority Plans

The El Dorado County Transit Authority (El Dorado Transit) provides a variety of fixed-route and demand response transit services throughout western El Dorado County, as well as commuter services to Sacramento County.

The Western El Dorado County Short- and Long-Range Transit Plan outlines the highest-priority transit projects over the next 25 years by organizing into two elements. The short-range element, prepared in January 2024, provides a detailed five-year plan and includes steps towards accomplishing the goals of the November 2019 long-range element, which focuses on strategies for public transportation in western El Dorado County over the next 25 years.

El Dorado County Active Transportation Plan

The El Dorado County Transportation Commission prepared the El Dorado County Active Transportation Plan in February 2020 as a guiding document to help the County build a balanced transportation system that supports and encourages active modes of travel. The Active Transportation Plan analyzes existing conditions and provides recommendations to improve active transportation within the County, as well as providing objectives and strategies to ensure that the recommendations are feasible.

El Dorado County Parks and Trails Master Plan

The El Dorado County Parks and Trails Master Plan provides direction and strategies to guide the development and operation of County-owned parks and trails, including bikeways. The plan includes goals, objectives, and policies to direct the planning, operation, and maintenance of parks and trails consistent with the County's long-range vision.

4.11.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential impacts related to transportation and circulation.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, the proposed project would be considered to result in a significant adverse impact on the environment in relation to transportation and circulation 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.

Vehicle Miles Traveled Standard of Significance

Project VMT impacts presumed to be less-than-significant based on El Dorado County VMT thresholds, which are consistent with OPR guidance, are as follows:

- Residential: 15 percent below baseline county-wide VMT per resident,
- Retail: no net increase in County Wide VMT per service population, and
- Other (including hotel, office, industrial, etc.): 15 percent below baseline regional or County VMT per employee.

Pursuant to the TIS, the focus of a trip-based analysis of a residential project is on home-based trips. Similarly, when a trip-based method is used to analyze a project that is not residential, the focus should be on home-based work trips (i.e., commute trips). Retail projects consider all VMT, as defined by OPR, to limit the analysis to the distance traveled by cars and light trucks. In addition, as noted by OPR, adding local-serving retail[9] into the urban fabric improves retail destination proximity and reduces VMT. Thus, lead agencies may reasonably presume that local-serving retail creates a less-than-significant impact. Regional-serving retail can substitute longer trips for shorter ones, which could lead to a significant impact. It should be noted that the proposed project is assumed to have regional serving retail for the purposes of this analysis.

Table 4.11-3 shows the unincorporated countywide average VMT, as well as the significance threshold associated with each land use type proposed as part of the project.

Collision History Significance Thresholds

Pursuant to the TIS, collision rates per million vehicle miles can be compared to statewide averages published by Caltrans for road segments. For two lane undivided roadways, such as Bass Lake Road and Country Club Drive, the average rate was 1.05 collisions per million vehicle miles in 2021. In addition, a three-year average of 1.03 collisions per million vehicles was identified by Caltrans for the years 2019 through 2021. The TIS used the significance threshold of 1.03 collisions per million vehicle miles.

[9] Many cities and counties define local-serving and regional-serving retail in their zoning codes. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional-serving, and should be analyzed to determine whether the project might increase or decrease VMT.

Table 4.11-2
VMT Thresholds

Land Use	Baseline	Significance Threshold
2018 countywide average home-based VMT per resident	22.1	18.8 (85% of Baseline)
2018 countywide average VMT per office/hotel/industrial employee	26.3	22.3 (85% of Baseline)
2040 countywide average retail VMT per service population (with non-retail Project Development Area and Program Study Area land use)	19.5	19.5 (100% of Baseline)
2040 countywide average retail VMT per service population (with non-retail super-cumulative land use)	19.8	19.8 (100% of Baseline)

Source: T. Kear, 2024.

Method of Analysis

The analysis methodology provided in the TIS prepared for the proposed project by T. Kear is discussed below.

Project Vehicle Miles Traveled

VMT for the proposed project was analyzed based on the El Dorado County TDM, which is based on an expanded version of the SACMet TDM originally developed by the SACOG. Project VMT estimates were calculated in terms of VMT per resident, employee, and service population for the residential, hotel, and retail uses, respectively.

Within the El Dorado County TDM, trip productions and attractions are estimated using transportation analysis zones (TAZs), which are typically neighborhood-size areas with generally similar rates of VMT. The El Dorado County TDM includes 674 TAZs connected by over 7,000 road segments. Each TAZ is represented in the TDM by a central point corresponding to the approximate center of travel activity. In addition, each road segment includes relevant characteristics, including, but not limited to, location, uncongested speed, number of lanes, and capacity, that allow the TDM to estimate travel times as trips.

Trips are estimated with one of eight purposes: home-based work; home-based shop; home-based school; home-based other; work-other; other-other; commercial two axle; and commercial 3+ axle. Specific modeling procedures are included in the TIS (see Appendix P of this SEIR). It should be noted that, for the purposes of the project VMT analysis and in addition to home-based work VMT, the TIS also included work-other and a portion of the other-other VMT categories produced by the proposed project.

For modeling purposes, the project site was placed in empty TAZs (#632-#636) which were positioned on the model road network with their access to Country Club Drive, near Bass Lake Rd. For non-residential uses, the TDM used employment data rather than square footage as its primary input. It should be noted that project employment estimates were based on population and employment projections developed by Economic Planning Systems, Inc. (EPS). For residential land uses, the TDM used dwelling units as its primary input. Land uses were as follows:

- Project Development Area:
  - Residential: 56 cottages were included as multi-family dwelling units for employees, and the remainder was included as part of the hotel.

  - Hotel uses: 300 rooms, event center, and ancillary retail. The hotel uses also included 111 "other" employees and 34 retail employees.
- Program Study Area:
  - Residential: 702 multi-family dwelling units.
  - Retail uses: 90,000 square feet (sf) and 180 retail employees.

A three-step process for the baseline and cumulative analysis years was used to estimate project VMT per resident, employee, and/or service population (residents plus employees), depending on the land use type. A detailed methodological description for the VMT analysis is provided in the TIS, which is included as Appendix P in this SEIR.

Project Trip Generation

Project trip generation is based on two sources: the standard for traffic operations analysis of land development projects, the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition; and the actual number of external trips assigned by the TDM. It should be noted that, according to the TIS, ITE methods are appropriate for making conservative estimates of how project-generated traffic may impact roadway operations in the vicinity of the proposed project, but generally overstate traffic relative to reasonable annual average VMT impacts. ITE methods are discussed within the TIS because the LOS analysis within the separate local transportation analysis report for the project is based on ITE trip generation. The TDM trip generation data is used in the VMT analysis.

ITE Trip Generation

The anticipated trip generation for the proposed project is shown in Table 4.11-4. After the initial ITE estimates, adjustments were made to account for internal trip capture, or trips that are anticipated to stay within the project site (e.g., a home-based shopping trip from an employee cottage to on-site retail uses).

The internal trip capture was conducted during the AM and PM peak hours and included two adjustments.

For the 56 employee housing units included in the Project Development Area, the TIS used a conservative estimate of 50 percent of the employee residences having one employee trip from home to work and one return trip each day. In addition, the TIS assumed that 75 percent of the trips would occur during the daytime, and 25 percent would be during the night shift or swing shift. In addition, the National Cooperative Highway Research Program (NCHRP) Report 684 methodology was used to estimate internal capture between the commercial, residential, and hotel land uses within the project site.

Overall, the ITE methodology resulted in a total of 14,154 daily vehicle trips, including internal trip capture for the AM and PM peak hours, but excluding internal capture for the remaining 22 hours of the day to provide a conservative estimate. The ITE estimates were used in the traffic operations analysis, thus ensuring use of the most conservative trip generation estimates. Such estimates are often approximately 10 percent higher than typical rates and included pass-by trips, or trips already on the road that may stop for convenience, such as gas station or coffee shops. It should be noted that the TDM does not account for pass-by trips. In total, ITE rates for commercial mixed-use projects could be 20 to 30 percent higher than TDM trip generation rates.

Table 4.11-3
Trip Generation (ITE Rates)

Description	ITE Land Use	Quantity	Units	Measure	Daily	AM Total	AM Inbound	AM Outbound	PM Total	PM Inbound	PM Outbound	Notes
Project Development Area (Project)												
Resort Hotel: (300 Rooms, 56 cottages, 46 ksf restaurants/commercial/conference)	330	356	rooms	rate	n/a	0.41	63%	37%	0.5	50%	50%	"Peak Hour of Generator" AM: Average Rate, PM: Fitted Curve Daily: (average of AM & PM)*10
				trips	1,360	146	92	54	180	90	90	
Hotel Adjustment for Employee Housing: Assume 50% of HH have 1 employee working per day (75% on shift)					-56	-28	-21	-7	-28	-7	-21	
Subtotal Project Hotel					1,574	118	71	47	152	83	69	
Single-Family Detached Housing: (56 cottages as employee housing)	210	56	DU	rate	10.57	0.84	264	74%	1.08	0.64	36%	"Peak Hour of Generator" AM, PM, Daily: Fitted Curve
				trips	592	47	12	35	61	39	22	
Housing Adjustment for Employee Housing: Assume 50% of HH have employee working per day (75% on day shift)					-56	-28	-7	-21	-28	-21	-7	
Subtotal Project Housing					536	19	5	14	33	18	15	
Project Subtotal					**2,110**	**137**	**76**	**61**	**185**	**101**	**84**	
Program Study Area (Program)												
Mixed Use Site: Age Restricted Attached Housing	252	150	DU	rate	3.24	0.29	45%	55%	0.3	54%	46%	"Peak Hour of Generator" AM, PM, Daily: Average Rate
				trips	486	44	20	24	45	24	21	
Mixed Use Site: Retail	822	10	ksf	rate	65.17	7.60	50%	50%	13.24	54%	46%	"Peak Hour of Generator" AM, PM: Average Rate Daily: Fitted Curve
				trips	652	76	38	38	132	71	61	
Multi-Family Residential	220	552	DU	rate	6.74	0.47	24%	76%	0.57	62%	38%	"Peak Hour of Generator" AM, PM, Daily: Average Rate
				trips	3,712	259	62	197	315	195	120	
Retail	821	80	ksf	rate	94.64	7.06	52%	48%	9.72	49%	51%	"Peak Hour of Generator" AM, PM: Average Rate Daily: Fitted Curve
				trips	7,570	565	294	271	778	381	397	
NCHRP 684 Adjustment (Project + Program)					-376	-22	-11	-11	-354	-177	-177	
Program Subtotal					**12,044**	**922**	**403**	**519**	**916**	**494**	**422**	
Town and Country Village Project												
Project + Program Total					**14,154**	**1,059**	**479**	**580**	**1,101**	**595**	**506**	

Notes:
Land Use 330 (Resort Hotel), daily rates are based on 10 times the average of the AM and PM peak hour rates.
To be conservative, trip generation rates were based on the higher of either the average rate or the rate based on the fitted curve as published by the ITE.

Source: T. Kear, 2024.

TDM Trip Generation

The TDM uses unique criteria to estimate trip generation and internalization. As described above, TDM estimates are generally lower than estimates generated using ITE methods because TDM estimates are calibrated to local conditions and the TDM is subject to an extensive peer review process before being adopted. TDM estimates are generally lower because they account for internal trip capture throughout the day, rather than just during peak hours, and because TDM estimates are intended to represent annual average conditions, rather than worst case conditions. In addition, as previously discussed, pass-by trips are not counted as new vehicle trips in trip-based models such as the El Dorado County TDM.

According to the TIS, the El Dorado County TDM reasonably assigned 11,322 daily vehicle trips to the roadway network for the project site, which is approximately 20 percent lower than the ITE trip generation estimate.

Project-Specific Impacts and Mitigation Measures

The proposed project impacts on the transportation system are evaluated in this section based on the thresholds of significance and methodology described above. Each impact is followed by recommended mitigation to reduce the identified impacts, if needed. In the case of traffic operations, specifically intersection and roadway LOS, such an analysis is not considered relevant pursuant to CEQA Guidelines Section 15064.3(a), as congestion and intersection operations do not constitute a transportation impact under CEQA. The County is separately reviewing LOS based on a transportation operations report prepared by T. Kear to determine whether the proposed project could result in LOS conflicts at nearby facilities, which could necessitate physical improvements.

4.11-1 Conflict with a program, plan, ordinance, or policy, except LOS, addressing the circulation system during construction activities. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

The following discussion includes an analysis of the proposed project's potential to impact the circulation system during construction activities for both the Project Development Area and the Project Buildout.

Project Development Area and Project Buildout

Construction activities associated with the proposed project, including the off-site improvements, would include use of construction equipment, including vehicles removing or delivering fill material, bulldozers, and other heavy machinery, as well as building materials delivery, and construction worker commutes. The transport of heavy construction equipment to the project site and off-site improvement locations, 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 and have ready access to the project site due to the site's proximity to the US 50/Bass Lake Road Interchange. Furthermore, project construction would likely stage any large vehicles (i.e., earth- moving equipment, cranes, etc.) on the site prior to beginning site work and remove such vehicles at project completion. However, detailed information related to the construction schedule during site development, or a construction management plan, is not available. As a result, construction activities could include disruptions to the transportation network near the project site.

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.

Project Development Area and Project Buildout

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 El Dorado County Department of Transportation for review and approval. The construction signing and traffic control plan shall include (but not be limited to) items such as:*

- *Guidance on the number and size of trucks per day entering and leaving the project site;*
- *Identification of arrival/departure times that would minimize traffic impacts;*
- *Approved truck circulation patterns;*
- *Locations of staging areas;*
- *Locations of employee parking and methods to encourage carpooling and use of alternative transportation;*
- *Methods for partial/complete street closures (e.g., timing, signage, location and duration restrictions);*
- *Criteria for use of flaggers and other traffic controls;*
- *Preservation of safe and convenient passage for bicyclists and pedestrians through/around construction areas;*
- *Monitoring for roadbed damage and timing for completing repairs;*
- *Limitations on construction activity during peak/holiday weekends and special events;*
- *Preservation of emergency vehicle access;*
- *Removing traffic obstructions during emergency evacuation events; and*

- *Providing a point of contact for County 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, except LOS, addressing the circulation system, including transit, roadway bicycle, and pedestrian facilities, during operations. Based on the analysis below, the impact is *less than significant*.

As discussed throughout this chapter, LOS is no longer the applicable metric when evaluating transportation impacts of a project. The evaluation of VMT is discussed in Impact 4.11-3 of this chapter. Therefore, the following discussion focuses on whether components of the proposed project would result in impacts to existing or planned pedestrian or bicycle facilities and services within the project area and off-site improvement areas. The following discussions include an analysis of the proposed project's potential to impact the circulation system during operations for the Project Development Area and Project Buildout.

Project Development Area

The following discussion includes an analysis of the proposed project's potential impacts related to bicycle facilities, pedestrian facilities, and transit facilities.

Bicycle Facilities

As noted in the Existing Environmental Setting section of this chapter, bicycle facilities in the vicinity of the project site include the Class I bikeway south of the project site and Class II bike lanes on Bass Lake Road and Country Club Drive, the latter of which travels through the northern portion of the project site. It should be noted that all existing bike pathways would be maintained. In addition, El Dorado County has approved the Bass Lake North Bike Trail, which is planned to extend along the east side of Bass Lake Road from Hollow Oaks Drive to Old Country Club Drive, which includes the project frontage areas along Bass Lake Road. The Bass Lake North Bike Trail, as approved, would consist of an approximately 1,600-foot-long Class I bike path and multi-use trail.

As part of the project, the existing Class 1 bike path, located on Old Country Club Road south of the project site, would be maintained west to Bass Lake Road. As part of the Project Development Area improvements, the project would expand the Class I bike path system by extending the Old Country Club Class 1 bike path north into the site along the historic Clarksville Toll Road alignment (see Figure 4.11-2). The Class I bike trail was planned as part of the BLHSP, and as specified therein, would be designed in conformance with County standards. The Class I bike trail along the Clarksville Toll Road alignment would end at the intersection of Bass Lake Road and Country Club Drive at the northwestern corner of the project site.

In addition, once a public agency and grant funding are determined, the project and/or the public agency would construct a Class I bike path and multi-use trail bridge crossing of Bass Lake Road (see Figure 4.11-3). The bridge crossing would include 100 feet of pedestrian and cyclist right-of-way and would be reinforced by concrete landings and abutments at a minimum clearance of 15 feet, six inches. The bridge crossing would provide primary access to and connect to a planned Class I bike path on the west side of Bass Lake Road planned as part of the approved BLHSP.

Based on the existing and proposed roadway bicycle facilities, the TIS concluded that the project operations would not conflict with a program, plan, ordinance or policy related to existing or proposed roadway bicycle facilities.

Pedestrian Facilities

Due to the rural nature of the project site and adjacent areas, pedestrian facilities are limited. Apart from Class I bike trails, which are used as multi-purpose trails throughout El Dorado County, and thus, are used by pedestrians, the surrounding area lacks sidewalks and other pedestrian amenities. However, the signalized Bass Lake Road/Country Club Drive intersection does include crosswalks with protected pedestrian spaces. In addition, four-foot walking trails would be constructed in the northern portion of the project site. Furthermore, pedestrians would be able to access the proposed bridge crossing of Bass Lake Road. Therefore, the TIS concluded that the proposed project would not conflict with a program, plan, ordinance or policy related to existing or proposed pedestrian facilities during operations.

Transit

Through connections to El Dorado Transit at the Missouri Flat Transit Center, the Folsom Lake College El Dorado Center, and the Placerville Station Transfer Center, residents of the proposed project could access connections to local routes serving the communities of Diamond Springs, Placerville, and Pollock Pines on an hourly basis operating between 6:00 AM and 6:00 PM.

It should be noted that a new park-and-ride facility located west of the Bass Lake Road/Country Club Drive intersection will serve as a bus stop as of July 15, 2024.[10]

[10] El Dorado Transit. *Sac Commuter.* Available at: https://eldoradotransit.com/routes/sac-commuter/. Accessed July 2024.

Figure 4.11-2
Proposed and Existing Bikeways

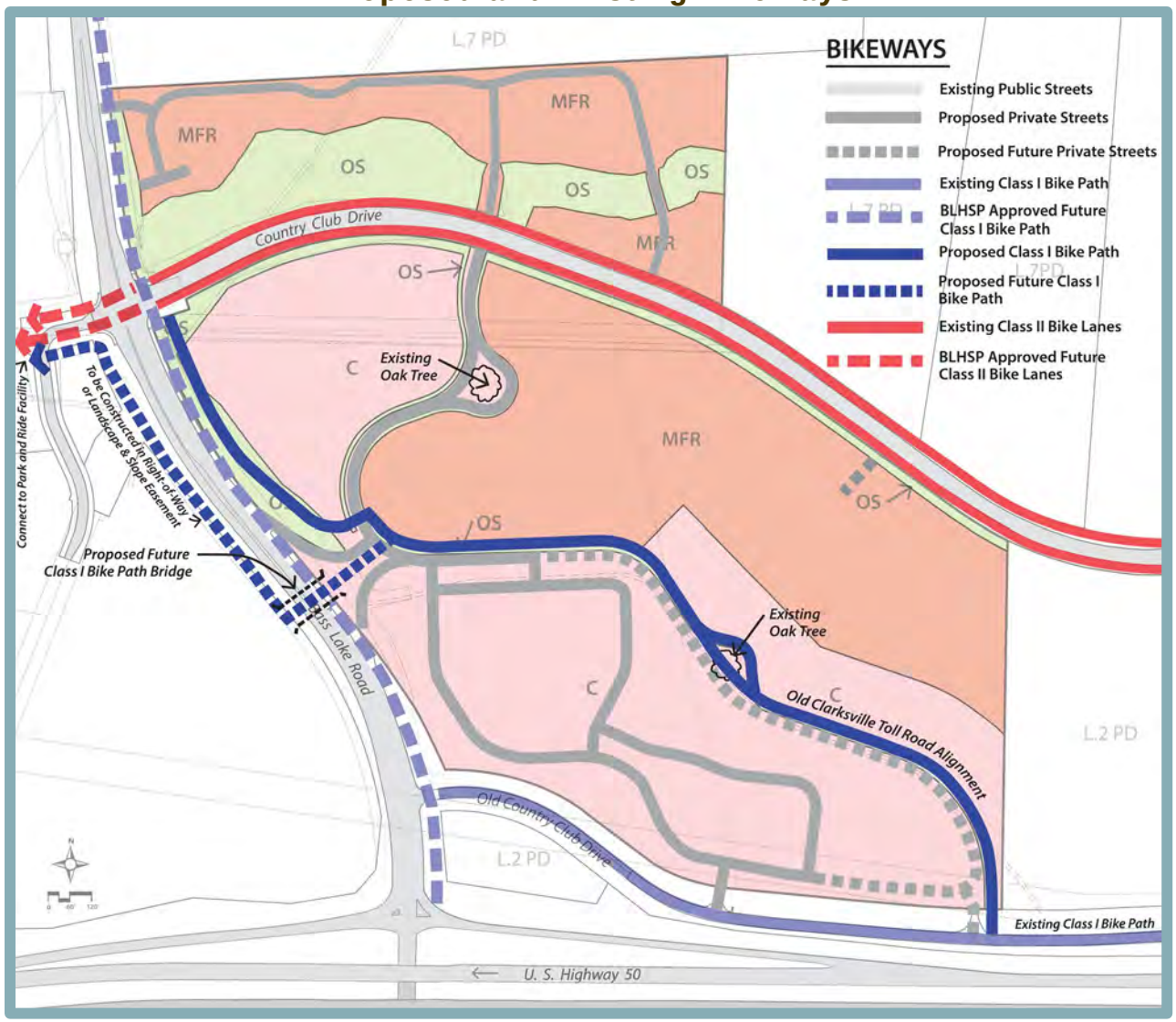
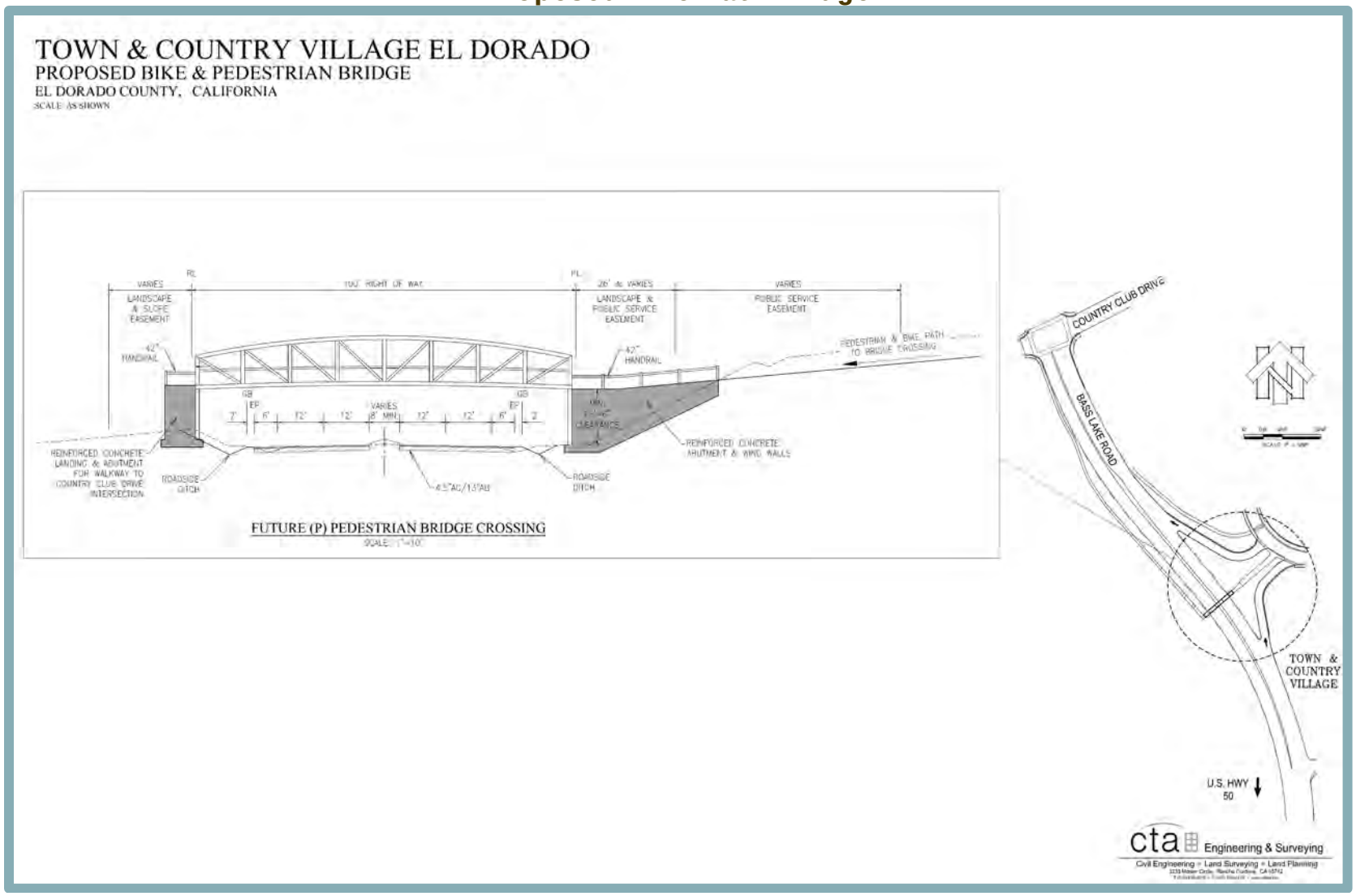


Figure 4.11-3
Proposed Bike Path Bridge



The new facility was funded by the County's 2023 Capital Improvement Program (CIP) under Project 36109004. Therefore, the TIS concluded that project operations would not conflict with a program, plan, ordinance or policy related to the existing or proposed transit service.

Project Buildout

As discussed above, various bicycle paths and pedestrian facilities, including the proposed bike path along the Clarksville Toll Road alignment included within the BLHSP, would be constructed during buildout of the Project Development Area.

Additional bicycle, pedestrian, and transit facility improvements are not currently proposed as part of Program Study Area buildout. Nonetheless, similar to the above discussion, any additional bicycle, pedestrian, and transit facility improvements that may occur as part of the Program Study would be designed in accordance with County standards. Therefore, similar to the above discussion, Project Buildout would not conflict with a program, plan, ordinance or policy related to existing or proposed bicycle facilities, pedestrian facilities, or transit services.

Conclusion

Based on the above, impacts related to conflicts with a program, plan, ordinance, or policy, addressing the circulation system during operations, including transit, roadway bicycle, and pedestrian facilities, would be ***less than significant***.

Mitigation Measure(s)

None required.

4.11-3 Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below, the impact is *significant and unavoidable*.

The potential for the Project Development Area and Project Buildout to result in VMT which exceeds an applicable threshold of significance is discussed separately in further detail below.

Project Development Area

Table 4.11-5 summarizes the results of the VMT analysis for the Project Development Area. As shown in the table, the Project Development Area would result in 17.1 VMT per resident and 21.8 VMT per hotel employee, which is below the appropriate significance thresholds. Accordingly, the Project Development Area would result in a less-than-significant impact related to VMT.

It should be noted that the TIS considered the event center and museum ancillary uses to the hotel, and were included in the hotel analysis. Pursuant to the TIS, such uses are relatively infrequent, and thus, typically have little impact on average daily VMT. For example, a single event attracting 365 trips might impact the VMT during the day on which the event occurs, but would be equivalent to attracting a single trip on an annualized basis.

Table 4.11-4
VMT Analysis Results - Project Development Area

Scenario	Per Capita VMT			County Goal Met?
	County Average	15% Reduction Goal	Project Generated Rate	
VMT per Resident (56 employee cottages)	22.1	18.8	17.1	**Yes**
VMT per Hotel Employee (Hotel[s], 56 hotel cottages, ancillary uses)	26.3	22.3	21.8	**Yes**

Source: T. Kear, 2024.

Project Buildout

Table 4.11-6 summarizes the results of the VMT analysis for Project Buildout at 2040 horizon year conditions. As shown in the table, the Project Development Area VMT rates would remain below the applicable thresholds of significance at Project Buildout. Similarly, the retail VMT per service population of 19.5 for the Program Study Area would be below the appropriate significance threshold. However, the dwelling units constructed as part of the Program Study Area would generate a household VMT per resident of 22.9 which would exceed the 18.8 household VMT per resident threshold of significance. Therefore, full project buildout would result in a significant impact related to resident VMT.

Table 4.11-5
VMT Analysis Results - 2040

Scenario	Per Capita VMT			County Goal Met?
	County Average	15% Reduction Goal	Project Generated Rate	
Project Development Area				
VMT per Resident (56 employee cottages)	22.1	18.8	17.1	**Yes**
VMT per Hotel Employee (Hotel[s], 56 hotel cottages, ancillary uses)	26.3	22.3	21.8	**Yes**
Program Study Area				
VMT per Resident (702 dwelling units)	22.1	18.8	22.9	**No**
VMT per Service Population (90,000 sf retail)	19.5	N/A[1]	19.5	**Yes**

Notes:
[1] As discussed in the standards of significance section above, the threshold of significance for retail VMT is based on a no net increase in countywide VMT per service population.

Source: T. Kear, 2024.

It should be noted that retail VMT per service population is little affected by the proposed retail uses because retail development is compared to the countywide retail per service population, which allows for existing retail trips to be attracted to

newer, more convenient, shopping areas. Therefore, VMT from new trips can be partially or fully offset by reduced VMT from existing trips attracted to the proposed retail development instead of retail uses located further away.

Conclusion

The residential component of the Program Study Area would generate VMT per resident above the unincorporated El Dorado County baseline average. Therefore, the proposed project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), and a ***significant*** impact could occur.

Mitigation Measure(s)

Feasible mitigation measures to reduce VMT for the Program Study Area residential uses, as identified by CAPCOA, are already designed into the proposed project, such as the mixed-use nature of the proposed project and bicycle connectivity. Additional CAPCOA measures ultimately rely upon an alternative transportation mode, such as transit, being available.

The CAPCOA *Handbook for Assessing GHG Emission Reductions, Climate Vulnerabilities, and Health and Equity* (December 2021) identifies numerous reduction strategies and quantifies their potential vehicle trip reduction effects. VMT mitigation and GHG mitigation are closely linked for many measures, and a reduction in VMT and GHG emissions are often proportional to one another. CAPCOA organizes mitigation using six broad categories of measures:

- Land use measures (that increase density and/or diversity of land uses);
- Trip reduction programs (commute trip reduction, bike and bikeshare infrastructure, parking cash-out, etc.);
- Parking or road pricing/management (unbundling parking from rent, on street parking charges, limit parking supply);
- Neighborhood design (bike/pedestrian facilities, car-share);
- Transit (extend/expand transit network, frequency, and infrastructure); and
- Clean vehicles and fuels (use cleaner fuel vehicles).

As previously discussed, most of the potential measures that would address VMT are already implemented by the Program Study Area. For example, the Program Study Area:

- Proposes a mix of uses including retail and housing opportunities;
- Increases density from the current zoning of 0.2 dwelling units per acre to about 20 dwelling units per acre; and
- Contributes to the construction of new bicycle and pedestrian facilities.

Most of the remaining CAPCOA measures either cannot be implemented at the project-level (i.e., enhanced transit), or contribute primarily to GHG reductions without any substantive VMT benefit (i.e., encouraging electric vehicle use). Two potential mitigation strategies remain, as follows:

- Unbundling of parking costs from rent, and
- Reduced parking supply.

Alternative modes of transportation are not available for the residential portion of the Program Study Area. Therefore, the following mitigation measure focuses on reducing the availability of automobiles to discourage travel. According to CAPCOA, the Program Study Area would require a 13.83 percent reduction in VMT to facilitate a less-than-significant finding for VMT impacts under CEQA.

Because alternative modes are not available for the residential portion of the Program Study Area and the following mitigation measure is not anticipated to reduce per capita VMT by the required 13.83 percent, impacts would remain *significant and unavoidable.*

Project Development Area

None required.

Program Study Area

4.11-3 The below measures shall be implemented as practicable, to the satisfaction of the El Dorado County Engineer. VMT mitigation is based on guidance from the California Air Pollution Officers Association (CAPCOA).

Unbundling of Parking Costs from Rent

Unbundling, or separating, a residential project's parking costs from property costs shall require those who wish to purchase parking spaces to do so at an additional cost. On the assumption that parking costs are passed through to the vehicle owners/drivers using the parking spaces, unbundling would result in decreased vehicle ownership, and thus, a reduction in VMT and GHG emissions. Unbundling may not be available to all residential developments, depending on funding sources. Unbundling would reduce parking demand by up to 15.7 percent under ideal conditions, based on an upper limit of $300 per month per parking space. Benefits are proportional to the fee; for example, a $150/month fee would provide half the benefit of a $300/month fee.

Reduced Parking Supply

Reducing the total parking supply available at a residential project or site would create scarcity and add additional time and inconvenience to trips made by private auto, thus disincentivizing driving as a mode of travel. Reducing the convenience of driving would result in a shift to other modes and decreased VMT, and thus, a reduction in GHG emissions and VMT. Evidence of the effects of reduced parking supply is strongest for residential developments. Such measures would reduce VMT by up to 13.7 percent if all on-site parking was eliminated, and by up to a prorated amount based on a lower level of implementation. Generally, El Dorado County requires one and a half to two parking spaces per multi-family unit; therefore, reducing the parking supply to one space per unit would reduce VMT by a maximum of 6.85 percent.

4.11-4 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). Based on the analysis below, the impact would be *less-than-significant.*

The following discussion includes an analysis of the proposed project's potential to substantially increase hazards to vehicle safety for both the Project Development Area and the Project Buildout.

Project Development Area and Project Buildout

As discussed above, the TIS included an analysis of collision history along the project area roadways. Pursuant to the TIS, the most collision-prone area within the vicinity of the project site is the portion of Bass Lake Road located between the US 50 eastbound offramp and Country Club Drive. However, the overall collision rate for Bass Lake Road between the US 50 eastbound ramps and Country Club Drive is 0.80 collisions per million VMT, which is well below the statewide average of 1.03 collisions per million VMT. In addition, as part of the Project Development Area improvements, the project would widen a portion of Bass Lake Road from two lanes to four lanes (two in each direction) from US 50 to just north of Country Club Drive. The widening project is currently in the County's CIP and identified as CIP 36105054.

The proposed project would not include any new sharp curves or dangerous intersections, and would not be located in the vicinity of any such roadway features. As discussed further in Chapter 3, Project Description, of this EIR, vehicle access to the project site would be provided by private roads connecting to Bass Lake Road to the west and to Country Club Drive to the north. Bass Lake Road would provide primary access to the Project Development Area south of Country Club Drive, containing the proposed hotels, Event Center/Museum, and restaurants. Primary access to the proposed cottages and secondary access to the proposed hotel would be provided from Country Club Drive. At the time that future development proceeds within the Program Study Area, a new roadway would be constructed and would connect the two portions of the project site. The new roadway would be comprised of a 45-foot right-of-way including two 14-foot travel lanes, and would include a roundabout in the Program Study Area to enhance traffic safety.

The design of the on-site internal circulation system would not involve any features that would increase traffic hazards at the site. All internal roadways would be designed consistent with applicable El Dorado County standards, which would be confirmed during improvement plan review. Furthermore, the proposed project would not introduce incompatible uses, such as farm equipment or heavy-duty truck traffic, to area roadways during operations. Potential impacts related to project construction traffic are discussed under Impact 4.11-1 above.

Conclusion

Based on the above, the proposed project would not 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), and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.11-5 Result in inadequate emergency access. Based on the analysis below, the impact is *less than significant*.

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.

The following discussion includes an analysis of the proposed project's potential to result in inadequate emergency access for the Project Development Area and Project Buildout.

Project Development Area

As discussed further in Chapter 3, Project Description, of this EIR, vehicle access to the project site would be provided by private roads connecting to Bass Lake Road to the west and to Country Club Drive to the north. Bass Lake Road would provide primary access to the Project Development Area south of Country Club Drive, containing the proposed hotels, Event Center/Museum, and restaurants. Primary access to the proposed cottages and secondary access to the proposed hotel would be provided from Country Club Drive.

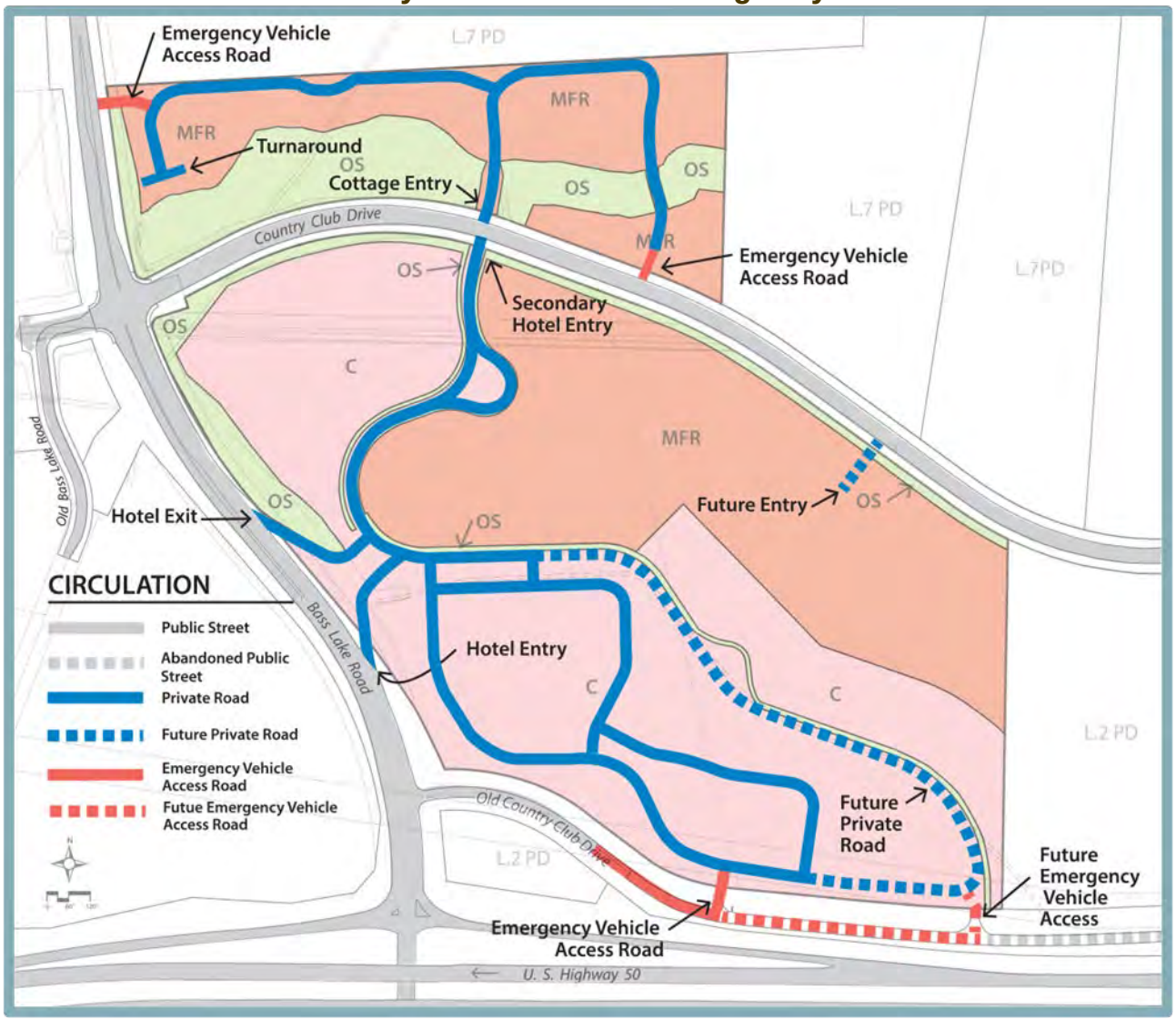
The proposed project would include two emergency access connections in the northern portion of the project site: one connection to Bass Lake Road, north of its intersection with Country Club Drive, and a second connection to Country Club Drive toward the eastern end of the cottage parcel (see Figure 4.11-4).

The Project Development Area south of Country Club Drive (proposed hotels, Event Center/Museum, and restaurants) would also include construction of an emergency access road from Old Country Club Drive, approximately 685 feet east of the intersection of Bass Lake Road and Old Country Club Drive, which would provide an additional emergency access connection in the south-central portion of the project site. All proposed emergency access connections would be designed in compliance with Section 130.30.090 of the El Dorado County Code, which would ensure sufficient emergency access to the project site.

Project Buildout

As discussed above, the Project Development Area improvements would include construction of an emergency access road from Old Country Club Drive, approximately 685 feet east of the intersection of Bass Lake Road and Old Country Club Drive, which would provide an additional emergency access connection in the south-central portion of the project site.

Figure 4.11-4
Internal Roadway Network and Emergency Access Gates



In addition to such improvements, development of the Program Study Area would include the extension of the emergency access road further east, and a third emergency access connection to Old Country Club Road would be constructed in the southeastern corner of the project site (see Figure 4.11-4). Similar to the above discussion, the proposed emergency access connection would be designed in compliance with Section 130.30.090 of the El Dorado County Code to ensure sufficient emergency access to the project site.

Conclusion

Based on the above, the proposed project would not result in inadequate emergency access, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

The following discussion is based on the implementation of the proposed project in combination with buildout of the adopted El Dorado County General Plan and a list of reasonably foreseeable projects not included in the General Plan growth projections. The TIS included a "super cumulative" VMT analysis, as compared to the more generally cumulative scenario that included development of the Project Development Area and Program Study Area. The super cumulative condition includes, but is not limited to, the proposed Village at Marble Valley Specific Plan (VMVSP), Lime Rock Valley Specific Plan (LRVSP), and El Dorado Hills (EDH) 52 projects. For further detail related to the cumulative setting of the proposed project, refer to Chapter 5, 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, hazards to vehicle safety, and emergency vehicle access. Rather, impacts to such facilities under cumulative conditions would be similar to the Project Buildout analyses discussed above under Impacts 4.11-2, 4.11-4, and 4.11-5. In addition, construction activities associated with the project, as discussed under Impact 4.11-1, would be complete prior to the cumulative analysis year. Therefore, such topics are not discussed further in the cumulative analysis presented herein.

4.11-6 Cumulatively conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below, the impact is *cumulatively considerable* and *significant and unavoidable*.

As discussed above, the cumulative setting for the proposed project includes implementation of the proposed project in combination with buildout of the adopted General Plan and a list of reasonably foreseeable projects not included in the General Plan growth projections. The TIS prepared for the proposed project included an evaluation of the project's effect on VMT under super cumulative conditions, as well as under 2040 horizon year cumulative buildout conditions.

The following discussion includes an analysis of the proposed project's potential to result in VMT under such cumulative conditions that exceeds the El Dorado County thresholds of significance for both the Project Development Area and Project Buildout.

Project Development Area and Project Buildout

Changes the countywide roadway network that would result from full buildout of the General Plan and reasonably foreseeable development projects throughout El Dorado County would not significantly affect countywide travel and circulation patterns such that impacts would occur beyond what was previously analyzed in Impact 4.11-3.

Nonetheless, Table 4.11-6 summarizes the results of the VMT analysis for Project Buildout under cumulative conditions.

Table 4.11-6
VMT Analysis Results – Super Cumulative Conditions

Scenario	Per Capita VMT			County Goal Met?
	County Average	15% Reduction Goal	Project Generated Rate	
2040 Cumulative Project Development Area				
VMT per Resident (56 employee cottages)	22.1	18.8	17.1	**Yes**
VMT per Hotel Employee (Hotel[s], 56 hotel cottages, ancillary uses)	26.3	22.3	21.8	**Yes**
2040 Cumulative Program Study Area				
VMT per Resident (702 dwelling units)	22.1	18.8	22.9	**No**
VMT per Service Population (90,000 sf retail)	19.5	N/A[1]	19.5	**Yes**
Super Cumulative Project Development Area				
VMT per Resident (56 employee cottages)	22.1	18.8	13.9	**Yes**
VMT per Hotel Employee (Hotel[s], 56 hotel cottages, ancillary uses)	26.3	22.3	18.1	**Yes**
Super Cumulative Program Study Area				
VMT per Resident (702 dwelling units)	22.1	18.8	21.4	**No**
VMT per Service Population (90,000 sf retail)	19.8	N/A[1]	19.8	**Yes**

Notes:
[1] As discussed in the standards of significance section above, the threshold of significance for retail VMT is based on a no net increase in countywide VMT per service population.

Source: T. Kear, 2024.

As shown in the table, Project Development Area VMT would remain below the applicable thresholds of significance under cumulative conditions. Similarly, retail

VMT per service population for the Program Study Area would be below the applicable significance threshold. However, similar to project-specific impacts discussed under Impact 4.11-3, the dwelling units constructed as part of the Program Study Area would generate a household VMT per resident of 21.4 under super cumulative conditions, and 22.9 under 2040 horizon year cumulative buildout conditions, which would exceed the 18.8 VMT threshold of significance. Therefore, similar to project-specific impacts, under cumulative conditions, Project Buildout would result in a significant impact related to residential VMT.

Conclusion

Based on the above, the proposed project, in combination with buildout of the El Dorado County General Plan and reasonably foreseeable development projects within the County, would result in a ***significant*** and ***cumulatively considerable*** impact related to VMT.

Mitigation Measure(s)

As discussed further under Impact 4.11-3, mitigation measures that would reduce VMT, as identified by CAPCOA, are already inherently included as part of project design. Additional VMT mitigation, included as Mitigation Measure 4.11-3, would serve to reduce VMT, but not to a less-than-significant level. Therefore, VMT impacts would remain *cumulatively considerable* and *significant and unavoidable.*

Project Development Area

None required.

Program Study Area

4.11-6 Implement Mitigation Measure 4.11-3.

4.12. TRIBAL CULTURAL RESOURCES

4.12. TRIBAL CULTURAL RESOURCES

4.12.1 INTRODUCTION

The Tribal Cultural Resources chapter of the EIR addresses known and unknown tribal cultural resources in the vicinity of the project area. Pursuant to Public Resources Code (PRC) Section 21074, tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR), or included in a local register of historical resources as defined in Subdivision (k) of PRC Section 5020.1. This chapter summarizes the existing setting with respect to tribal cultural resources, identifies thresholds of significance, evaluates potential project impacts to such resources, and sets forth mitigation measures. Information presented in this chapter is primarily drawn from Native American consultation pursuant to Assembly Bill (AB) 52 and Senate Bill (SB) 18, as well as a Cultural Resources Study prepared by Historic Resource Associates (HRA).[1] This chapter also includes information from the El Dorado County General Plan,[2] the El Dorado County General Plan EIR,[3] the Bass Lake Hills Specific Plan (BLHSP),[4] and the associated Bass Lake Road Study Area Program EIR (Bass Lake EIR).[5]

4.12.2 EXISTING ENVIRONMENTAL SETTING

A detailed overview of the project area's cultural history is included in Chapter 4.4, Cultural Resources, of this EIR. The sections below provide an ethnographic overview of tribal history within the project area, to the extent such information is known, as well as an overview of the tribal outreach and consultation conducted by the County for the proposed project, and any known tribal cultural resources within the area.

Ethnographic Overview

The project site is located within the ethnographic territory of the Southern Maidu or Valley Nisenan. The Nisenan are part of the California Penutian linguistic family, which is further divided into the following four subfamilies: Wintuan, Maiduan, Yokutsan, and Utian. The Nisenan belong to the Maiduan subfamily, along with the Maidu and Konkow. The territory of the Nisenan, which includes the drainage of the American River, extended from the crest of the Sierra Nevada in the east to the Sacramento River in the west; as far south as the Cosumnes River; and north to the divide of the North Fork Yuba River and Middle Fork Feather River. On the basis of geographical distribution, the Valley Nisenan normally derived their name from prominent features of the immediate landscape, from important local vegetation, and sometimes from mythical or local celebrity. When the inhabitants of a village moved to another location, the new settlement assumed a different name from that of the old settlement.

The chief political unit for the Nisenan was the triblet, which consisted of a principal, permanent village surrounded by several secondary villages and seasonal camps. The population of the

1 Historic Resource Associates. *Cultural Resources Study of The Town and Country Village El Dorado Project.* January, 2024.
2 El Dorado County. *El Dorado County General Plan 2004*. July, 2004.
3 El Dorado County. *El Dorado County General Plan 2004 Draft EIR*. January, 2004.
4 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
5 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

tribelet varied from 15 to 25 people to more than 500 people. The headman, which was usually a hereditary position, served as advisor to the people of the tribelet. The permanent village was usually found in the Foothill Belt of the lower Yellow Pine Belt, at an elevation of 100 to 4,000 feet. Typical permanent village sites were along streams, knolls, or ridges with a southern exposure. At the principal village, typical structures included family dwellings, acorn granaries, bedrock mortars, a sweat house, and a dance house. Winter villages were typically located on knolls or in valleys with good southern exposure and adjacent to springs or other permanent sources of water.

Resources utilized by the Nisenan in the area of the western slope of the Sierra were both diverse and prolific. A variety of plant and animal species was readily available for collection, processing, and consumption, with several different food types complimenting one another during various seasons. The main food source for the Nisenan was acorns, although a wide variety of other resources were also used. Tan bark oak and black oak were preferred, with golden oak, interior live oak, and scrub oak considered secondary food sources. Acorns were cracked, shelled, and ground into flour in a mortar. Then, the acorns were leached in sand and cooked in baskets using heated stones. Nuts of the sugar pine were also gathered at higher elevations. Buckeye was only eaten in times of starvation. Grasses, herbs, rushes, berries, and grapes were used to provide both food and materials for basketry, clothing, and other tools. Manzanita berries were used to make a cider-like drink. Small, medium, and large mammals were actively hunted within the regions of the western slope of the Sierra, such as deer, rabbits, and other small game. Several types of insects were also collected during the summer, including grasshoppers, ants, lizards, and frogs.

Rivers played an important role for the Nisenan, not only as territorial boundaries, but also as areas to procure food, such as Chinook salmon. Fish were poisoned with soaproot and turkey mullein or caught by hand in shallow water. Weirs, nets, harpoons, traps, and gorge hooks were also used to catch fish. The Nisenan called the North Fork of the American River “Yo dokin se o,” the Middle Fork of the American River “Ko o ba,” where the Middle and North Fork of the American River meet “Chul ku im se o,” and the Bear River “Ko mim se o.”

Nuts of the sugar pine were also gathered at higher elevations. Buckeye was eaten only in times of starvation. Roots were dug with a digging stick, eaten raw, or dried and pounded in mortars and pressed in cakes. Grasses, herbs, rushes, berries, and grapes provided both food and materials for basketry, clothing, and other tools. Manzanita berries were used to make a cider-like drink.

Animals hunted included deer, rabbits, and other small game. Mule deer were hunted in drives, with the use of fire, decoys, snares, or deadfalls. Rabbits were killed with sticks or blunted arrows, trapped, snared, or rounded up with the use of nets or fire. Grasshoppers, ants, lizards, and frogs were also eaten, and salt was obtained from springs located near Cool. Rivers played an important role for the Nisenan, not only as territorial boundaries, but also as areas to procure food, such as Chinook salmon. Fish were poisoned with soaproot and turkey mullein or caught by hand in shallow water. Weirs, nets, traps and gorgehooks were also used to catch fish.

Tools, including arrow and spear points, knives, and scrapers, were made of basalt, chalcedony, jasper, or obsidian. A wide variety of mineral resources, including quartz, quartzite, quartz crystals, chert, slate, and soapstone was available within the project area. Clothing and adornment were not elaborate. Steatite and whole olivella shell bead necklaces were among the items traded from the Patwin and Maidu. Males often wore a breechcloth, and women a skirt of wire grass.

The Valley Nisenan were reduced by an estimated three-fourths of their numbers by an epidemic of malaria in 1833. Shortly after the discovery of gold in January 1848, the heart of the foothill territory was overrun with miners. By 1860, Nisenan native lifeways were nearly obliterated. By the late 1930s, living Nisenan could not recall their lifeways before contact with white settlers.

The United Auburn Indian Community (UAIC) is a federally recognized tribe comprised of both Miwok and Maidu (Nisenan) Indians and are traditionally and culturally affiliated with the project area. The tribe possesses the expertise concerning tribal cultural resources in the area and are contemporary stewards of their culture and the landscapes. The tribal community represents the continuity and endurance of their ancestors by maintaining their connection to their history and culture. The tribe's goal is to ensure the preservation and continuance of their cultural heritage for current and future generations.

Tribal Consultation

Pursuant to AB 52 and SB 18, invitations to consult were sent to tribes who requested notification of proposed projects within the geographic area of the project site on February 15, 2023**.** Specifically, notification letters were sent to the UAIC and Shingle Springs Band of Miwok Indians.

On March 1, 2023, the UAIC Tribal Historic Preservation Department responded to the notification letter. The UAIC reviewed the project site through the tribe's Tribal Historic Resource Information System (THRIS) database and determined that areas of cultural sensitivity and/or known tribal cultural resources are located within or adjacent to the site. As a result, and subsequent to a September 13, 2024 site visit with the County on the 60.5-acre project site, on April 29, 2024, the UAIC provided a list of recommended mitigation measures to the County, all of which have been incorporated into the Impacts and Mitigation Measures section of this chapter. The Shingle Springs Band of Miwok Indians indicated to the County that they would delegate responsibility for consultation to UAIC for the proposed project.

Known Tribal Cultural Resources

As discussed further in the Method of Analysis section, HRA conducted a field survey as part of the Cultural Resources Study over a series of site visits from June 2022 through October 2023. Through the course of the on-site pedestrian survey, known tribal cultural resources were not identified within the project site. A records search of the California Historical Resources Information System (CHRIS) was completed at the North Central Information Center (NCIC) at Sacramento State University, on November 14, 2017 for the Bass Lake Road and Country Club Drive Intersection Project, which included much of the project site. Two additional record searches were conducted in June 2022 and August 2023 for the proposed project. In addition, as discussed above, the UAIC reviewed the project site through the tribe's THRIS database. Further details of the records searches are provided in the Method of Analysis subsection below. Based on the results of the record searches, two known tribal cultural resources have been determined to occur in immediate proximity to the project site, off-site sewer alignment alternatives, and/or off-site water alignment. The known tribal cultural resources that occur in immediate proximity to areas that could be disturbed as part of project construction activities include a multi-component archaeological resource (P-09-000807/CA-ELD-000719/H/BLR-2 and CA-ELD-000719/H/BLR-3), and a prehistoric milling site (P-09-000805/CA-ELD-717), each of which is discussed further below.

Multi-Component Archaeological Site: P-09-000807/CA-ELD-000719/H/BLR-2

The multi-component archaeological resource is located off-site primarily within the east-west intermittent drainage north of Country Club Drive, to the east of the project site boundaries, and is comprised of the sparse residue of historic gold placer mining, structural remains of a former water storage and irrigation system, and precontact milling or bedrock mortar features. While the historic gold placer mining, water storage, and irrigation features are sparse and generally lack integrity, the precontact site occurs to the east of the project site boundary, to the north of the intermittent drainage.

Precontact Milling Site: P-09-000805/CA-ELD-717

The precontact milling site was recorded in 1990 and occurs off-site to the west of the project site, and north of Option 1 of the off-site sewer pipe alignment, shown in Figure 3-18 of the EIR. The site consists of single mortar cupule in an outcrop of amphibolite schist. In addition to the mortar cupule, HRA discovered a very sparse refuse scatter of discarded ceramics and glass, along with shovel blade and several other pieces of iron. The refuse scatter occurs approximately 40 meters to the northeast of the mortar cupule.

4.12.3 REGULATORY CONTEXT

Federal, State, and local governments have developed laws and regulations designed to protect significant 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 tribal cultural resources of national, regional, State, and local significance.

Federal Regulations

The following are the federal environmental laws and policies relevant to 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 Historical 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 National Register of Historic Places (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.

State Regulations

The following are the State environmental laws and policies relevant to tribal cultural resources.

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

SB 18, signed into law in September 2004, 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.). The proposed project includes a General Plan Amendment and, thus, is subject to SB 18 consultation requirements.

Public Resources Code Section 5024.1(c)

According to PRC Section 5024.1(c), a resource may be listed as a historical resource in the CRHR if the resource meets any of the following NRHP criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) 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.
(4) Has yielded, or may be likely to yield, information important in prehistory or history.

Local Regulations

The following are the local government's environmental policies that are intended to protect tribal cultural resources by mitigating the potential impacts of new development in areas containing important tribal cultural resources.

El Dorado County General Plan

The following goals and policies from the El Dorado County General Plan related to tribal cultural resources are applicable to the proposed project.

Goal 7.5 CULTURAL RESOURCES: Ensure the preservation of the County's important cultural resources.

Objective 7.5.1 PROTECTION OF CULTURAL HERITAGE: Creation of an identification and preservation program for the County's cultural resources.

Policy 7.5.1.1 The County shall establish a Cultural Resources ordinance. This ordinance shall provide a broad regulatory framework for the mitigation of impacts on cultural resources (including historic, prehistoric and paleontological resources) by discretionary projects. This ordinance should include (but not be limited to) and provide for the following:

A. Appropriate (as per guidance from the Native American Heritage Commission) Native American monitors to be notified regarding projects involving significant ground disturbing activities that could affect significant resources.
B. A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.
C. Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.
D. A definition of cultural resources that are significant to the County. This

definition shall conform to (but nor necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CPHR) and society of Vertebrate Paleontology.

E. Formulation of project review guidelines for all development projects.
F. Development of a cultural resources sensitivity map of the County.

Policy 7.5.1.2 Reports and/or maps identifying specific locations of archaeological or historical sites shall be kept confidential in the Planning Department but shall be disclosed where applicable.

Policy 7.5.1.3 Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.

Bass Lake Hills Specific Plan

The BLHSP was adopted November 7, 1995, as a coordinated planning program consistent with the El Dorado County General Plan for the development of 1,196 acres located in eastern El Dorado County. The plan area is located approximately three miles east of the Sacramento County/El Dorado County line, within the underdeveloped eastern portion of El Dorado Hills and adjacent to the west end of Cameron Park. U.S. Highway 50 (US 50) forms the southern plan area boundary, and Bass Lake Road transects the area in a north/south direction. Bass Lake is located approximately 0.25-mile north of the plan area. The project site is located within the southern portion of the BLHSP area. Section 7.2 of the BLHSP establishes the following cultural resources standards related to sensitive archeological sites:

1. The County shall require site-specific archaeological investigations for all development proposals which may impact sensitive archaeological sites described in the EIR.
2. Mitigation measures to protect archaeological sites shall be implemented through conditions in development permits and shall require on-site monitoring by qualified personnel during excavation work in areas identified as sensitive for archaeological resources. Development activity shall cease whenever artifacts or skeletal remains are discovered until arrangements can be made to avoid or otherwise protect the site.

Identified archaeological sites shall be protected through non-building setbacks to be recorded on the subdivision map.

3. The local Indian Council shall be notified of all discretionary development application for review and comment.

4.12.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to tribal cultural 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 tribal cultural resources is considered significant if the proposed project would:

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k); or
    - 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 Public Resource Code 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 Native American consultation pursuant to AB 52 and SB 18, and a Cultural Resources Study prepared by HRA. The methods of analysis are described in further detail below.

Native American Tribal Consultation

Pursuant to AB 52 and SB 18, invitations to consult were sent to tribes who requested notification of proposed projects within the geographic area of the project site on February 15, 2023. Specifically, notification letters were sent to the Shingle Springs Band of Miwok Indians and UAIC. The Shingle Springs Band of Miwok Indians indicated to the County that they would delegate responsibility for consultation to UAIC for the proposed project.

The identification of tribal cultural resources for this project by UAIC included a review of pertinent literature and historic maps, and a records search using UAIC's THRIS database, which is composed of UAIC's areas of oral history, ethnographic history, and places of cultural and religious significance, including UAIC Sacred Lands that are submitted to the Native American Heritage Commission (NAHC). The THRIS resources in the project region also include previously recorded indigenous resources identified through the CHRIS, NCIC, as well as historic resources and survey data.

Review of the project site through the THRIS database identified areas of cultural sensitivity or known tribal cultural resources in or adjacent to the site. On April 29, 2024, the UAIC provided a

sensitivity map to the County sharing where monitoring should be located during project-related construction activities. The monitoring requirement from UAIC has been incorporated into this chapter as mitigation. The UAIC also requested that the tribe's standard unanticipated discoveries mitigation measure be included in this EIR, which is incorporated below.

Cultural Resources Study

The Cultural Resources Study prepared by HRA included a records search at the NCIC of the CHRIS, literature and map review, and a field survey. The foregoing components of the Cultural Resources Study are discussed in further detail within Chapter 4.4, Cultural Resources, of this EIR.

Project-Specific Impacts and Mitigation Measures

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

4.12-1 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*.

Given that development of the Project Development Area and Program Study Area would result in the construction of similar land uses on contiguous parcels, the following discussion applies to the potential for both components to cause a substantial adverse change in the significance of a tribal cultural resource, as defined by PRC Section 21074. In addition, the discussion includes consideration of the proposed off-site water line alignment and off-site sewer line alignment options.

Project Development Area and Project Buildout

As previously discussed, known tribal cultural resource sites identified by UAIC as being located in immediate proximity to areas that could be disturbed as part of project construction, include a multi-component archaeological site (P-09-000807/CA-ELD-000719/H/BLR-2 and CA-ELD-000719/H/BLR-3) and precontact milling site (P-09-000805/CA-ELD-717). Each resource is discussed further below, followed by a discussion of the potential for unknown tribal cultural resources to occur within the project site and off-site improvement areas.

Multi-Component Archaeological Site

The multi-component archaeological resource is located off-site primarily within the east-west intermittent drainage north of Country Club Drive to the east of the project site where the cottages would be built. According to the Cultural Resources Study, the resource's precontact milling or bedrock mortar features could be eligible for listing under CRHR criteria. However, given that the multi-component archaeological resource is located off-site, the proposed project is not anticipated to result in direct impacts to the precontact milling or bedrock mortar features. In addition, the resource is located well outside of the northern boundary of the Program Study Area. As such, future development of the Program Study Area would not result in potential impacts to the resource. However, as the final

improvement plans have not yet been prepared, based on the resource's close proximity to the easternmost boundary of the Project Development Area, indirect effects associated with Project Development Area construction staging activities and/or inadvertent off-site ground disturbance cannot be entirely ruled out. As such, Mitigation Measure 4.4-2(a) included in Chapter 4.4, Cultural Resources, of this EIR requires that drip line fencing be installed just north of P-09-000807 prior to initiation of ground-disturbing activities associated with the Project Development Area. In addition, UAIC has expressed to the County its desire to monitor ground-disturbing activities occurring within mapped portions of P-09-000807. Mitigation Measure 4.12-1(b) below requires tribal monitoring based on a confidential exhibit provided to the County by UAIC.

Precontact Milling Site

The precontact milling site occurs off-site to the west of the project site, west of Old Bass Lake Road (Lincoln Highway) and north of an unnamed drainage. The milling site is north of the disturbance corridor that was studied for Option 1 of the off-site sewer pipe alignment, as shown in Figure 3-18 of the Project Description chapter of this EIR, and thus would not be adversely affected by the project.

Unknown Tribal Cultural Resources

The potential for encountering previously unidentified buried tribal cultural resources within the project site and off-site utility line alignments cannot be entirely ruled out, as the proposed project would include ground-disturbing activities, such as excavation associated with construction of the proposed structures, as well as new building foundations and trenching for new utility lines. According to the Cultural Resources Study's review of literature, local ethnographic settlement and subsistence patterns, and history of the project vicinity, as well as the UAIC's review of the THRIS database, the project site includes areas of high sensitivity for tribal cultural resources. In addition, the project site is located in a region sensitive for precontact resources including tribal cultural resources associated with the ancestral Nisenan culture, whose territory encompassed the project site.

More specifically, to date, the UAIC has not surveyed the potential off-site sewer pipe alignments, and thus, UAIC has recommended tribal monitoring in the off-site sewer pipe alignment areas due to their sensitivity to contain unknown tribal cultural resources. Similarly, UAIC has not surveyed the off-site water line alignments, and while one of the alignments is within the disturbed Bass Lake Road right-of-way, the second option is just east of Bass Lake Road, within the planned Bass Lake North Bike Trail, which requires two drainage crossings. UAIC has identified this off-site water line alignment as a sensitive area for tribal cultural resources.

Given the sensitivity of the project site and off-site improvement areas, unknown tribal cultural resources could exist in the project vicinity beneath the ground surface and have the potential to be uncovered during ground-disturbing activities at the project site and off-site utility alignment areas. As such, the UAIC requested tribal monitoring in the off-site improvement areas (see Mitigation Measure 4.12-

1(b)) and that the tribe's standard unanticipated discoveries mitigation measure be included in this EIR, which is incorporated as Mitigation Measure 4.12-1(c) below.

Conclusion

Based on the above, the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 2107, and 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.

Project Development Area and Project Buildout

4.12-1(a) *Tribal Cultural Resources Awareness Training. The following language shall be noted on project Improvement Plans, subject to review and approval by the El Dorado County Planning and Building Department:*

Prior to the initiation of construction, all construction crew members, consultants, and other personnel involved in project implementation shall receive project-specific Tribal Cultural Resource (TCR) Awareness Training. The training shall be conducted in coordination with qualified cultural resource specialists and representatives from culturally affiliated Native American Tribes. The training will emphasize the requirement for confidentiality and culturally appropriate, respectful treatment of any finds of significance to culturally affiliated Native American Tribes. All personnel required to receive the training shall also be required to sign a form that acknowledges receipt of the training, which shall be submitted to the El Dorado County Planning and Building Department for review and approval. As a component of the training, a brochure will be distributed to all personnel associated with the project implementation. At a minimum the brochure shall discuss the following topics in clear and straightforward language:

- *Field indicators of potential archaeological or cultural resources (i.e., what to look for, for example: archaeological artifacts, exotic or non-native rock, unusually large amounts of shell or bone, significant soil color variations, etc.)*
- *Regulations governing archeological resources and tribal cultural resources.*
- *Consequences of disregarding or violating laws protecting archeological or tribal cultural resources.*
- *Steps to take if a worker encounters a possible resource.*

The training shall include project specific guidance for on-site personnel including protocols for resource avoidance, when to stop work, and who to contact if potential archeological or TCRs are identified. The training shall also address the stoppage of work if

potentially significant cultural resources are discovered during ground disturbing activities, and in the case of possible human remains the proper course of action requiring immediate contact with the County Coroner and the NAHC.

4.12-1(b) *Tribal Monitoring Related to P-09-00087 and Off-Site Improvement Areas. The project proponent or their construction contractor shall comply with the following measure to assist with identification of TCRs at the earliest possible time during project-related earthmoving activities. These measures shall be included as notes on the project improvements plans prior to their approval by the County.*

- *The project proponent shall contact the UAIC THPO (thpo@auburnrancheria.com) at least 2 to 3 months prior to project ground-disturbing activities within the areas identified for monitoring in the confidential tribal monitoring exhibit provided by UAIC to the County (e.g., P-09-000807 and off-site improvement areas) to retain the services of a UAIC Certified Tribal Monitor(s). The duration of the construction schedule and Tribal Monitoring shall be determined at this time.*
- *A contracted Tribal Monitor(s) shall monitor the vegetation grubbing, stripping, grading, trenching, and other ground disturbing activities in the project area surrounding P-09-000807, as indicated on the confidential tribal monitoring exhibit provided by the UAIC to the County. All ground-disturbing activities within such area, including rebuild or previously disturbed, shall be subject to Tribal Monitoring unless otherwise determined unnecessary by the UAIC. A contracted UAIC certified Tribal Monitor shall spot check up to 16 hours per month the ground-disturbing activities within all other areas of the project site.*
- *Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites, cultural soils, or objects of potential significance are identified. The temporary pause/diversion, shall be of an adequate duration for the Tribal Representative to examine the resource.*
- *Appropriate treatment of TCRs may include but is not limited to:*
    - *Recordation of the resource(s);*
    - *Avoidance and preservation of the resource(s); and*
    - *Recovery and reburial of the resource(s) onsite or in a feasible off-site location in a designated area subject to no further disturbance. The location of the reburial shall be acceptable to the UAIC.*

- *To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.*
- *The Tribal Monitor(s) shall wear the appropriate safety equipment while on the construction site.*
- *The Tribal Monitor, in consultation with the UAIC THPO and the project proponent, shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.*
- *In the event the Tribal Monitor does not report to the job site at the scheduled time after receiving 24-hour business day notice, construction activities may proceed without tribal monitoring. At no time, regardless or absence of a Tribal Monitor, shall suspected TCRs be mishandled or disrespected.*
- *The CEQA lead agency shall assist with resolution of disagreements between the project proponent/contractor and the Tribe if such occurs on the project.*

4.12-1(c) *Tribal Spot Monitoring Related to 60.5-acre Project Site. The project proponent or their construction contractor shall comply with the following measure to assist with identification of TCRs at the earliest possible time during project-related earthmoving activities. These measures shall be included as notes on the project improvements plans prior to their approval by the County.*

- *The project proponent shall contact the UAIC THPO (thpo@auburnrancheria.com) at least 2 to 3 months prior to project ground-disturbing activities to retain the services of a UAIC Certified Tribal Monitor(s). The duration of the construction schedule and Tribal Monitoring shall be determined at this time.*
- *A contracted UAIC Certified Tribal Monitor(s) shall spot check up to 16 hours per month the ground disturbing activities within the 60.5-acre project site.*
- *Tribal Monitors or Tribal Representatives shall have the authority to direct that work be temporarily paused, diverted, or slowed within 100 feet of the immediate impact area if sites, cultural soils, or objects of potential significance are identified. The temporary pause/diversion shall be of an adequate duration for the Tribal Representative to examine the resource.*
- *Appropriate treatment of TCRs or other cultural finds may include but is not limited to:*
    - *Recordation of the resource(s);*
    - *Avoidance and preservation of the resource(s); and*
    - *Recovery and reburial of the resource(s) onsite or in a feasible off-site location in a designated area*

subject to no future disturbance. The location of the reburial shall be acceptable to the UAIC.

- *To track the implementation of this measure, the Tribal Monitor(s) shall document field-monitoring activities on a Tribal Monitor log.*
- *The Tribal Monitor(s) shall wear the appropriate safety equipment while on the construction site.*
- *The Tribal Monitor, in consultation with the UAIC THPO and the project proponent, shall determine a mutual end or reduction to the on-site monitoring if/when construction activities have a low potential for impacting Tribal Cultural Resources.*
- *In the event the Tribal Monitor does not report to the job site at the scheduled time after receiving 24 hour business day notice, construction activities may proceed without tribal monitoring. At no time, regardless of the presence or absence of a Tribal Monitor, shall suspected TCRs be mishandled or disrespected.*
- *The CEQA lead agency shall assist with resolution of disagreements between the project proponent/contractor and the Tribe if such occurs on the project.*

4.12-1(d) *Unanticipated Discoveries. If any suspected TCRs, including but not limited to cultural features, midden/cultural soils, artifacts, exotic rock (non-native), shell, bone, shaped stones, or ash/charcoal are discovered by any person during construction activities including ground disturbing activities, all work shall pause immediately within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. Work shall cease in and within the immediate vicinity of the find regardless of whether the construction is being actively monitored by a Tribal Monitor, cultural resources specialist, or professional archaeologist. A Tribal representative and El Dorado County Planning and Building Department shall be immediately notified, and the Tribal Representative in coordination with El Dorado County shall determine if the find is a TCR (PRC Section 21074) and the Tribal Representative shall make recommendations for further evaluation and treatment as necessary.*

The culturally affiliated Tribe shall consult with the County to (1) identify the boundaries of the new TCR and (2) if feasible, identify appropriate preservation in place and avoidance measures, including redesign or adjustments to the existing construction process, and long-term management, or 3) if avoidance is infeasible, a reburial location in proximity of the find where no future disturbance is anticipated. Permanent curation of TCRs will not take place unless approved in writing by the culturally affiliated Tribe.

The construction contractor(s) shall provide secure, on-site storage for culturally sensitive soils or objects that are components of TCRs that are found or recovered during construction. Only Tribal Representatives shall have access to the storage. Storage size shall be determined by the nature of the TCR and can range from a small lock box to a conex box (shipping container). A secure (locked), fenced area can also provide adequate on-site storage if larger amounts of material must be stored.

The construction contractor(s) and El Dorado County shall facilitate the respectful reburial of the culturally sensitive soils or objects. This includes providing a reburial location that is consistent with the Tribe's preferences, excavation of the reburial location, and assisting with the reburial, upon request.

Work at the TCR discovery location shall not resume until authorization is granted by the Lead Agency in coordination with the culturally affiliated Tribe.

If articulated or disarticulated human remains, or human remains in any state of decomposition or skeletal completeness are discovered during construction activities, the County Coroner and the culturally affiliated Tribe shall be contacted immediately. Upon determination by the County Coroner that the find is Native American in origin, the Native American Heritage Commission will assign the Most Likely Descendent who will work with the project proponent to define appropriate treatment and disposition of the burials.

4.12-1(e) *Implement Mitigation Measure 4.4-2(a).*

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 details regarding the cumulative project setting can be found in Chapter 5, Statutorily Required Sections, of this EIR.

4.12-2 Cause a cumulative loss of tribal cultural resources. Based on the analysis below, the cumulative impact is *less than significant*.

Generally, while some tribal cultural resources may have regional significance, the resources themselves are site-specific, and impacts are project-specific. For example, impacts to a subsurface tribal cultural resource at one project site would

not generally be made worse by impacts to a 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 tribal cultural resource represents the last known example of its kind or is part of a larger resource site. For such resources, cumulative impacts, and a project's contribution to them, may be considered cumulatively significant.

As described in Chapter 4.4, Cultural Resources, of this EIR, P-09-000807 and P-09-000805 will be avoided through project design. Furthermore, implementation of the project-specific mitigation measures set forth in this EIR (Mitigation Measures 4.4-1[a] through 4.4-1[d], 4.4-2[a] through 4.4-2[b], and 4.4-3) would ensure that any impacts to previously unknown, subsurface resources that are discovered on the project site during construction activities are reduced to less than significant.

Similar to the proposed project, future development projects within El Dorado County would be required to implement project-specific mitigation to ensure any potential impacts to identified tribal cultural resources are reduced to a less-than-significant level, where possible. Therefore, given that tribal cultural resource impacts are generally site-specific and each future project within the County would be required to mitigate such impacts, any potential impacts associated with cumulative buildout of the County would not combine to result in a significant cumulative impact.

Based on the above, the potential for impacts related to a cumulative loss of tribal cultural resources, to which implementation of the proposed project might contribute, is ***less than significant.***

Mitigation Measure(s)
None required.

4.13. UTILITIES AND SERVICE SYSTEMS

4.13. UTILITIES AND SERVICE SYSTEMS

4.13.1 INTRODUCTION

The Utilities and Service Systems chapter of the EIR summarizes the setting information and identifies potential new demands resulting from the proposed project on utilities and service systems, including water, sanitary sewer, electric power, natural gas, telecommunication, and solid waste disposal services. The chapter evaluates the sufficiency of water supplies to meet the project's water demand, the adequacy of the wastewater treatment system required to serve the project, and the project's compliance with applicable regulations related to solid waste. Information for the Utilities and Service Systems chapter was primarily drawn from the Water Supply Assessment (WSA) prepared by Zanjero (see Appendix Q of this EIR)[1] and the Preliminary Sanitary Sewer Feasibility Study (Sanitary Sewer Study) prepared by CWE (see Appendix K of this EIR).[2] In addition, information was sourced from the El Dorado County General Plan[3] and associated EIR.[4] Further information was sourced from the Bass Lake Hills Specific Plan (BLHSP) and the Bass Lake Road Study Area Program EIR (Bass Lake EIR).[5,6]

It should be noted that impacts related to groundwater supplies, recharge, water quality, and stormwater drainage facilities are addressed in Chapter 4.7, Hydrology and Water Quality, of this EIR.

4.13.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing utilities and service systems in the project area, including water supply, wastewater conveyance and treatment, solid waste, and gas, electric, and telecommunication infrastructure.

Water Supply and Delivery Infrastructure

The project site is not currently served by a water service provider. The proposed project would require annexation into the El Dorado Irrigation District (EID) service area, which is subject to El Dorado Local Agency Formation Commission (LAFCo) approval.

Water Supply and Demand

The EID 2020 Urban Water Management Plan (UWMP) completed a detailed analysis of EID's treated water supplies, which are derived from a number of rights and entitlements. EID maintains both secured water assets and planned water assets. EID's secured water assets include pre-1914 appropriative water rights, licensed and permitted appropriative water rights, U.S. Bureau of Reclamation (USBR) Central Valley Project (CVP) water service contracts, and Warren Act contracts, as well as recycled water produced at the El Dorado Hills (EDH) and Deer Creek

1 Zanjero. *SB 610 Water Supply Assessment for Town and Country Village El Dorado*. Adopted October 10, 2023.
2 CWE. *Preliminary Sanitary Sewer Feasibility Study for Town and Country El Dorado Hills, CA*. April 3, 2024.
3 El Dorado County. *2004 El Dorado County General Plan. A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief*. Adopted July 19, 2004, Amended December 10, 2019.
4 El Dorado County. *El Dorado Country General Plan Draft Environmental Impact Report*. May 2003.
5 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
6 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

wastewater treatment plants. EID's planned water assets will include two additional water supplies, including water under the El Dorado-Sacramento Municipal Utility District (SMUD) Cooperation Agreement and a CVP entitlement derived from the El Dorado Water Agency (EDWA) Fazio water supply. Upon State Water Board approval, the El Dorado–SMUD Cooperation Agreement would provide EID with 30,000 acre-feet per year (AFY) of water through 2025, and 40,000 AFY thereafter. The EDWA Fazio water could provide EID with an additional 7,500 AFY of water from Folsom Reservoir. However, with EID's existing water rights, EID does not have a plan to use the Fazio water in the near future.

The majority of water provided to the EDH water system is obtained under rights and entitlements from the Folsom Reservoir. EID currently acquires water from the Folsom reservoir through a Reclamation CVP water service contract, a Warren Act contract for re-diverted Weber Reservoir and EID ditch water, and State Water Right Permit 21112. Through the Reclamation CVP contract, EID is entitled to 7,550 AFY during normal and wet years, subject to a Reclamation shortage policy that can restrict allocations during periods of water shortage to 75 percent of historic use. Warren Act contracts allow non-federal water assets to be transported through federal storage and conveyance facilities for retrieval. EID's Warren Act contract water consists of approximately 4,560 AFY of re-diverted water that was historically diverted at Weber Dam, Weber Creek, Slab Creek, and Hangtown Creek diversion ditches, but is now sent downstream for diversion at Folsom Reservoir.[7] Permit 21112 grants EID 17,000 AFY of water; EID is working to finalize a long-term Warren Act contract to allow diversion of Permit 21112 water at Folsom Reservoir. [8] The only water that EID currently purchases wholesale is that associated with the Reclamation contract; however, EID plans to purchase water wholesale from the EDWA, which is pursuing a Reclamation contract under Public Law 101-514. Table 4.13-1 below provides a summary of EID's treated water supplies.

According to the EID 2020 UWMP, by 2045, growth in the EDH region is expected to add a total of 3,170 acre-feet (AF) of new water demand to EID's system across all new connections, regardless of connection type. Most new demand is projected to come from single-family units. The 2020 UWMP estimated total water service area demand to be approximately 43,320 AF annually by 2045, as shown below in Table 4.13-2.

As detailed in Chapter 5 of the 2020 UWMP, EID compared the supply availability to the forecast future demand through 2045 for normal, single dry, and multiple dry years. Table 4.13-3 and Table 4.13-4 present the results of the 2020 UWMP's normal, single-dry, and multiple dry year reliability analysis. As represented under all conditions, the 2020 UWMP indicates EID will have sufficient water supplies to adequately meet all of the forecast water demand through 2045. For a discussion of how EID estimated future growth and associated water demand, please refer to the Method of Analysis section of this chapter.

7 El Dorado Irrigation District. *Water and Recycled Water Master Plan*. June 2024.
8 El Dorado Irrigation District. *2020 Urban Water Management Plan*. Adopted June 28, 2021.



Table 4.13-1
EID Water Supply Summary 2020-2045

Water Right or Entitlement	Maximum Water Assets Available	Normal Year	Single Dry Year	Multiple Dry Years				
				Year 1	Year 2	Year 3	Year 4	Year 5
Existing Supplies (AF)								
Ditches/Weber Reservoir Rights (License 2184 and Pre-1914 Water Rights)	4,560	4,560	3,000	3,000	3,000	3,000	3,000	3,000
Sly Park Reservoir (Licenses 11835 and 11836)	33,400	23,000	20,920	20,920	17,000	15,500	15,500	15,500
CVP Contract (Contract 14-060200-1375A-LTR1-P)	7,550	7,550	3,775	3,775	3,775	1,235	1,235	1,235
Project 184 (Pre-1914 at Forebay)	15,080	15,080	15,080	15,080	15,080	15,080	15,080	15,080
Permit 21112 (Project 184 Warren Act Contract)	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000
Outingdale/Middle Fork Consumnes (Permit 4071)	104	104	104	104	13	13	13	13
Recycled Water (non-potable)	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Subtotal Existing	**81,194**	**70,794**	**63,379**	**63,379**	**59,368**	**55,328**	**55,328**	**55,328**
Planned Supplies (AF)								
CVP Fazio Water entitlement	**7,500**	**7,500**	**3,750**	**3,750**	**3,750**	**1,235**	**1,235**	**1,245**
Total	**88,694**	**78,294**	**67,129**	**67,129**	**63,118**	**56,563**	**56,563**	**56,563**

Source: EID, 2020 Urban Water Management Plan, 2021.

Table 4.13-2
Future EID Water Use

	Land-class	2025	2030	2035	2040	2045
		AFY				
Existing Potable Uses	Single-family	14,400	14,400	14,400	14,400	14,400
	Single-family (dual potable)	840	840	840	840	840
	Multi-family	1,520	1,520	1,520	1,520	1,520
	Commercial (all)	2,320	2,320	2,320	2,320	2,320
	Recreational Turf	990	990	990	990	990
	City of Placerville	1,150	1,150	1,150	1,150	1,150
	Subtotal	**21,220**	**21,220**	**21,220**	**21,220**	**21,220**
New Uses	EDH Region	580	1,210	1,830	2,480	3,170
	Western Region	100	180	260	340	420
	Eastern Region	200	360	530	700	870
	City of Placerville	10	40	70	140	140
	Subtotal	**890**	**1,790**	**2,690**	**3,660**	**4,600**
Total Municipal		**22,110**	**23,010**	**23,910**	**24,880**	**25,820**
Other	Other Authorized Uses	3,300	3,300	3,300	3,300	3,300
	Agriculture (potable)	5,210	5,360	5,510	5,660	5,810
	Distribution System Loss	4,120	3,860	3,960	4,050	4,150
Total Potable Demand		**34,740**	**35,530**	**36,680**	**37,890**	**39,080**
Recycled	Single-family – Dual (landscape)	2,450	2,450	2,450	2,450	2,450
	Commercial	990	990	990	990	990
	Recreational Turf	490	490	490	490	490
	Distribution System Loss	310	310	310	310	310
	Subtotal	**4,240**	**4,240**	**4,240**	**4,240**	**4,240**
Total District Demand		**38,980**	**39,770**	**40,920**	**42,130**	**43,320**

Source: EID, 2020 Urban Water Management Plan, 2021.

Table 4.13-3
Normal and Single Dry Year Water Supply and Demand

Normal Year	2025	2030	2035	2040	2045
	AF				
Supply	70,800	70,800	78,300	78,300	78,300
Demand	38,980	39,770	40,920	42,130	43,320
Difference	31,820	31,030	37,380	36,170	34,980
Single Dry Year	**2025**	**2030**	**2035**	**2040**	**2045**
	AF				
Supply	63,400	63,400	67,100	67,100	67,100
Demand	40,930	41,760	42,970	44,240	45,490
Difference	22,470	21,640	24,130	22,860	21,610

Source: EID, 2020 Urban Water Management Plan, 2021.

Table 4.13-4
Five Consecutive Dry Years Water Supply and Demand

		2025	2030	2035	2040	2045
		AF				
Year 1	Supply	63,400	63,400	63,400	63,400	63,400
	Demand	40,930	41,760	42,970	44,240	45,490
	Difference	22,470	21,640	20,430	19,160	17,910
Year 2	Supply	59,400	59,400	63,100	63,100	63,100
	Demand	41,100	42,000	43,220	44,490	45,490
	Difference	18,300	17,400	19,880	18,610	17,610
Year 3	Supply	55,300	55,300	56,600	56,600	56,600
	Demand	41,270	42,240	43,470	44,740	45,490
	Difference	14,030	13,060	13,130	11,860	11,110
Year 4	Supply	55,300	55,300	56,600	56,600	56,600
	Demand	41,440	42,480	43,720	44,990	45,490
	Difference	13,860	12,820	12,880	11,610	11,110
Year 5	Supply	55,300	55,300	56,600	56,600	56,600
	Demand	41,610	42,720	43,970	45,240	45,490
	Difference	13,690	12,580	12,630	11,360	11,110

Source: EID, 2020 Urban Water Management Plan, 2021.

Water Quality

The water quality of EID's supply sources is generally excellent and is able to meet all Title 22 drinking water standards after treatment. Most of EID's water supplies originate as surface water in sparsely developed watersheds on the western slope of the Sierra Nevada mountains, which protects supplies from many sources of contamination.

The last updated assessments of EID's drinking water sources for its main system were completed in 2018 and showed that the EID meets or exceeds all state and federal drinking water standards. Source water is considered most vulnerable to potential contamination from recreation, residential sewer, septic systems, and urban runoff activities, which are all associated with constituents detected in the water supply, and is also considered vulnerable to illegal activities, dumping, fertilizer, pesticide and herbicide application, forest activities, and wildfires. However, constituents associated with such activities were not detected during the 2018 sampling.

Water Delivery Infrastructure

The nearest existing water line is a 24-inch water main located in Bass Lake Road, approximately 2,000 feet north of the project site. Two wells exist near the center of the project site, within the Program Study Area. One well has been abandoned, and one is still considered active.

Wastewater Conveyance and Treatment

The project site is not currently served by a wastewater treatment services provider. As discussed above, the proposed project would require annexation into the EID service area, which is subject to El Dorado LAFCo approval.

Wastewater Treatment

Sewer treatment for the EID is provided at the EDH Wastewater Treatment Plant (WWTP), which is located on Latrobe Road, approximately two miles to the southwest of the project site. The EDH WWTP is owned by EID, and the service area encompasses approximately 30 square miles, from the Sacramento County line east to Bass Lake Road, north to Folsom Reservoir, and south to three miles beyond U.S. Highway 50 (US 50).[9]

Under the EDH WWTP's National Pollutant Discharge Elimination System (NPDES) Permit, Number CAG585001, the EDH WWTP has a permitted average dry weather flow (ADWF) capacity of four million gallons per day (mgd).[10] The EDH WWTP currently operates at approximately 65 percent of the WWTP's permitted flow, with an ADWF of 2.6 mgd.[11] To accommodate future growth in the collection system, the Wastewater Facilities Master Plan includes the expansion of the EDH WWTP to 5.45 mgd by 2025.[12]

Tertiary-level treatment at the EDH WWTP consists of screening, primary clarification, aeration, secondary clarification, filtering, and disinfection. Recycled water from the EDH WWTP is used for residential and commercial landscaping. Treated wastewater from the EDH WWTP that is not used for irrigation purposes is discharged to Carson Creek. EID has a 70,000,000 gallon (215 AF) storage reservoir located at the EDH WWTP to help balance the rate of recycled water generation with recycled water demands, and to allow the plant to operate without discharging to Carson Creek during the dry season.[13]

Wastewater Collection Infrastructure

Existing sewer facilities do not exist within the immediate vicinity of the project site. The nearest existing sewer facility is the 18-inch South Uplands Trunk Sewer-Gravity Main, located in Russi Ranch Road, approximately 1.6 miles to the west of the project site. The existing sewer line travels through the Silva Valley and EDH trunk lines to the EDH WWTP on Latrobe Road.

Solid Waste

Solid waste and recycling collection services would be provided to the proposed project by El Dorado Disposal Inc. (EDD), which provides residential, commercial, and construction collection services for unincorporated areas within El Dorado County. EDD serves the western portion of the County. EDD transports waste to the Western El Dorado Recovery Systems (WERS) Transfer Station and Material Recovery Facility (MRF), located at 4100 Throwita Way in Placerville. The WERS Transfer Station and MRF sorts mixed municipal waste for recycling and has a maximum permitted throughput of 400 tons per day.[14] According to the California Department of Resources Recycling and Recovery's (CalRecycle's) Recycling and Disposal Reporting System database,

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9 El Dorado County. *El Dorado County General Plan Environmental Impact Report Water Element*. May 2003.

10 Central Valley Regional Water Quality Control Board. *Notice of Applicability (NOA); Municipal General Waste Discharge Requirements Order R5-2017-0085 (NPDES CAG585001); El Dorado Irrigation District, El Dorado Hills Wastewater Treatment Plant, El Dorado County*. August 31, 2018.

11 Brink, Mike, Senior Engineer, El Dorado Irrigation District. Personal Communication [email] with Nick Pappani, Vice President, Raney Planning & Management, Inc. April 8, 2024.

12 El Dorado Irrigation District. *Wastewater Facilities Master Plan*. July 31, 2013.

13 *Ibid.*

14 California Department of Resources Recycling and Recovery. *SWIS Facility/Site Activity Details Western El Dorado Recovery Systems MRF (09-AA-0004)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/4494?siteID=313. Accessed April 2024.

unincorporated El Dorado County produced approximately 114,368 tons of landfill waste in 2023.[15]

Solid waste collected by EDD is ultimately disposed of at Potrero Hills Landfill, located in Suisun City, approximately 60 miles southwest of the project site. According to CalRecycle, the Potrero Hills Landfill is permitted to accept a peak daily waste flow of 4,330 tons.[16] The landfill receives a maximum permitted disposal of 2,500 tons per day,[17] and is anticipated to cease operations in 2059.[18]

Electric, Gas, and Telecommunication Infrastructure

Electric services in the project area are provided by Pacific Gas & Electric Company (PG&E). PG&E is one of the largest providers of electricity throughout El Dorado County. PG&E is a San Francisco-based investor-owned utility that is regulated by the California Public Utilities Commission and provides electricity 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. The nearest existing gas line is located at the intersection of Bass Lake Road and Hollow Oak Drive. PG&E currently operates electric transmission and distribution facilities within easements on the project site. The existing 80-foot PG&E easement runs diagonally east-to-west in the southern portion of the project site. Electric and natural gas service would be supplied to the project site by PG&E.

4.13.3 REGULATORY CONTEXT

The following discussion contains a summary of regulatory controls pertaining to utilities, including State and local laws and ordinances.

Federal Regulations

The federal environmental laws and policies relevant to 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 regulations associated with utilities related to the proposed project.

California Green Building Standards Code

The 2022 California Green Building Standards Code, otherwise known as the CALGreen Code (California Code of Regulations [CCR] Title 24, Part 11) is a portion of the California Building Standards Code (CBSC), which became effective on January 1, 2023. The CBSC is adopted every three years by the Building Standards Commission (BSC).

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15 California Department of Resources Recycling and Recovery. *RSRS Report 1: Overall Jurisdiction Tons for Disposal and Disposal Related Uses*. Available at: https://www2.calrecycle.ca.gov/RecyclingDisposalReporting/Reports/OverallJurisdictionTonsForDisposal. Accessed May 2024.

16 California Department of Resources Recycling and Recovery. *SWIS Facility/Site Activity Details Potrero Hills Landfill (48-AA-0075)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1194?siteID=3591. Accessed April 2024.

17 WasteWORKS. *Potrero Hills Landfill in Solano County*. Available at: https://www.wasteworksonline.com/potrero-hills-landfill/. Accessed May 2024.

18 U.S. Environmental Protection Agency. *GHG Data, Potrero Hills Landfill*. Available at: https://ghgdata.epa.gov/ghgp/service/html/2022?id=1007345&et=undefined. Accessed May 2024.

The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the current CALGreen Code include, but are not limited to, the following measures:

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the Department of Water Resources' (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. El Dorado County does not require compliance with Tier 1 or Tier 2 CALGreen standards at this time.

Assembly Bill 1327

Assembly Bill (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. El Dorado County has adopted such an ordinance (El Dorado County Code Section 8.42.600).

Assembly Bill 1881

AB 1881, the Water Conservation in Landscaping Act of 2006 required the DWR to update the MWELO. Furthermore, AB 1881 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. El Dorado County has adopted the updated MWELO.

California Integrated Waste Management Act – Assembly Bill 939

AB 939, the California Integrated Waste Management Act of 1989, contains requirements affecting solid waste disposal in California. 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 plan. The plans must promote (in order of priority) 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.

Senate Bill 1016

Enacted in 2007, Senate Bill (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.

The Countywide Integrated Waste Management Plan (IWMP) is mandated by State law under AB 939. The purpose of the IWMP is to describe local waste diversion and disposal conditions and lay out realistic programs to achieve the waste diversion goals outlined in AB 939. The IWMP serves as the primary tool for designing waste-reduction programs that are countywide in scope. The IWMP also addresses the County's landfill needs in a comprehensive way. In El Dorado County, waste reduction and disposal facilities that require Solid Waste Facility Permits must conform to the policies contained in the IWMP.

Executive Order N-7-22

On March 28, 2022, Executive Order (EO) N-7-22 was issued to enhance water supply resilience and increase drought response within the State. EO N-7-22 limits a county, city, or other public agency's ability to permit modified or new groundwater wells. Specifically, before local entities can permit new or modified groundwater wells in high and medium priority groundwater basins, EO N-7-22 requires the Groundwater Sustainability Agency (GSA) monitoring the basin to verify in writing that the permitted action is not inconsistent with the Groundwater Sustainability Plan (GSP) or other groundwater management program for the basin. Additionally, the permitting entity must determine that the well will not interfere with nearby wells and will not cause subsidence that could negatively affect nearby infrastructure.

Model Water Efficient Landscape Ordinance

The Water Conservation in Landscaping Act was enacted in 2006, requiring the DWR to update the MWELO. In 2009, the Office of Administrative Law (OAL) approved the updated MWELO, which required a retail water supplier or a county to adopt the provisions of the MWELO by January 1, 2010, or to enact its own provisions equal to or more restrictive than the MWELO provisions.

In response to the Governor's EO dated April 1, 2015, (EO B-29-15), DWR updated the MWELO and the California Water Commission approved the adoption and incorporation of the updated State standards for MWELO on July 15, 2015, effective after December 1, 2015.

The changes included a reduction to 55 percent for the maximum amount of water that may be applied to a landscape for residential projects, which effectively reduces the landscape area that can be planted with high water use plants, such a turf. The newly updated MWELO also applies to new construction with a landscape area greater than 500 square feet (sf). The El Dorado County

Planning and Building Department reviews all new development for conformance with such standards. The MWELO provides a methodology to calculate total water use based upon a given plant factor and irrigation efficiency. Finally, the MWELO requires the landscape design plan to delineate hydrozones (based upon plant factors) and then to assign a unique water use value for each hydrozone (low, medium, high).

Local Regulations

The following are applicable local utility regulations related to the proposed project.

El Dorado County General Plan

The following goals and policies from the El Dorao County General Plan related to utilities are applicable to the proposed project.

Goal 5.1 PROVISION OF PUBLIC SERVICES: Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to existing development while allowing for additional growth in an efficient manner; and, ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.

Objective 5.1.2 CONCURRENCY: Ensure through consultation with responsible service and utility purveyors that adequate public services and utilities, including water supply, wastewater treatment and disposal, solid waste disposal capacity, storm drainage, fire protection, police protection, and ambulance service are provided concurrent with discretionary development or through other mitigation measures provided, and ensure that adequate school facilities are provided concurrent with discretionary development to the maximum extent permitted by State law. It shall be the policy of the County to cooperate with responsible service and utility purveyors in ensuring the adequate provision of service. Absent evidence beyond a reasonable doubt, the County will rely on the information received from such purveyors and shall not substitute its judgment for that of the responsible purveyors on questions of capacity or levels of service.

Policy 5.1.2.1 Prior to the approval of any discretionary development, the approving authority shall make a determination of the adequacy of the public services and utilities to be impacted by that development. Where, according to the purveyor responsible for the service or utility as provided in Table 5-1, demand is determined to exceed capacity, the approval of the development shall be conditioned to require expansion of the impacted facility or service to be available concurrent with the demand, mitigated, or a finding made that a

CIP project is funded and authorized which will increase service capacity.

Policy 5.1.2.2 Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to Table 5-1 (see Table 4.13-5).

The following Levels of Service shall apply to the review of discretionary projects.

Policy 5.1.2.3 New development shall be required to pay its proportionate share of the costs of infrastructure improvements required to serve the project to the extent permitted by State law. Lack of available public or private services or adequate infrastructure to serve the project which cannot be satisfactorily mitigated shall be grounds for denial of any project or cause for the reduction of size, density, and/or intensity otherwise indicated on the General Plan land use map to the extent allowed by State law.

Goal 5.2 WATER SUPPLY: The development or acquisition of an adequate water supply consistent with the geographical distribution or location of future land uses and planned developments.

Objective 5.2.1 COUNTY-WIDE WATER RESOURCES PROGRAM: Establish a County-wide water resources development and management program to include the activities necessary to ensure adequate future water supplies consistent with the General Plan.

Policy 5.2.1.2 An adequate quantity and quality of water for all uses, including fire protection, shall be provided for with discretionary development.

Policy 5.2.1.3 All medium-density residential, high-density residential, multifamily residential, commercial, industrial and research and development projects may be required to connect to public water systems if reasonably available when located within Community Regions and to either a public water system or to an approved private water systems in Rural Centers.

Table 4.13-5
Minimum Levels of Service

	Community Region	Rural Center and Rural Region
Public water source	As determined by purveyor	As determined by purveyor, when applicable
Private wells	Environmental Management	Environmental Management
Public water treatment capacity	As determined by purveyor	As determined by purveyor
On-site sewage disposal	Environmental Management	Environmental Management
Storm drainage	Department of Transportation	Department of Transportation
Solid waste	Environmental Management	Environmental Management
County and State road circulation system	E	D
Schools	As determined appropriate by the school districts	As determined appropriate by the school districts
Parks	Specific plan for new communities or Quimby Fee/dedication program for tentative maps	Quimby Fee/dedication program for tentative maps
Fire district response	8-minute response to 80% of the population	15 to 45-minute response
Sheriff	8-minute response to 80% of the population	No standard
Ambulance	10-minute response to 80% of the population	20-minute response in Rural regions and “as quickly as possible” in wilderness areas*
*In accordance with State standards		

Policy 5.2.1.4 Rezoning and subdivision approvals in Community Regions or other areas dependent on public water supply shall be subject to the availability of a permanent and reliable water supply.

Policy 5.2.1.6 Priority shall be given to discretionary developments that are infill or where there is

an efficient expansion of the water supply delivery system.

Policy 5.2.1.9 In an area served by a public water purveyor or an approved private water system, the applicant for a tentative map or for a building permit on a parcel that has not previously complied with this requirement must provide a Water Supply Assessment that contains the information that would be required if a water supply assessment were prepared pursuant to Water Code section 10910. In order to approve the tentative map or building permit for which the assessment was prepared the County must (a) find that by the time the first grading or building permit is issued in connection with the approval, the water supply from existing water supply facilities will be adequate to meet the highest projected demand associated with the approval on the lands in question; and (b) require that before the first grading permit or building permit is issued in connection with the approval, the applicant will have received a sufficient water meters or a comparable supply guarantee to provide adequate water supply to meet the projected demand associated with the entire approval. A water supply is adequate if the total entitled water supplies available during normal, single, dry, and multiple dry years within a 20-year projection will meet the highest projected demand associated with the approval, in addition to existing and 20-year projected future uses within the area served by the water supplier, including but not limited to, fire protection, agricultural, and industrial uses, 95% of the time, with cutbacks calculated not to exceed 20% in the remaining 5% of the time.

Policy 5.2.1.11 The County shall direct new development to areas where public water service already exists. In Community Regions, all new development shall connect to a public water system. In Rural Centers, all new development shall connect either to a public water system or to an approved private water system.

Goal 5.3 WASTEWATER COLLECTION AND TREATMENT: An adequate and safe system of wastewater collection, treatment, and disposal to serve current and future County residents.

Objective 5.3.1 WASTEWATER CAPACITY: Ensure the availability of wastewater collection and treatment facilities of adequate capacity to meet the needs of multifamily, high-, and medium-density residential areas, and commercial and industrial areas.

Policy 5.3.1.1 High-density and multifamily residential, commercial, and industrial projects may be required to connect to public wastewater collection facilities if reasonably available as a condition of approval. In the Rural Centers of Camino/Cedar Grove/Pollock Pines, the long term development of public sewer service shall be encouraged.

Policy 5.3.1.7 In Community Regions, all new development shall connect to public wastewater treatment facilities. In Community Regions where public wastewater collection facilities do not exist project applicants must demonstrate that the proposed wastewater disposal system can accommodate the highest possible demand of the project.

Goal 5.5 SOLID WASTE: A safe, effective and efficient system for the collection and processing of recyclable and transformable materials and for the disposal of residual solid wastes which cannot otherwise be recycled or transformed.

Objective 5.5.2 RECYCLING, TRANSFORMATION, AND DISPOSAL FACILITIES: Ensure that there is adequate capacity for solid waste processing, recycling, transformation, and disposal to serve existing and future users in the County.

Policy 5.5.2.1 Concurrent with the approval of new development, evidence will be required that capacity exists within the solid waste system for the processing, recycling, transformation, and disposal of solid waste.

Policy 5.5.2.3 The County shall adopt a Construction and Demolition Debris Diversion Ordinance requiring that a minimum of 50 percent of the debris from construction and demolition projects be reused or recycled. The County shall encourage a higher rate of diversion.

Goal 5.6 GAS, ELECTRIC, AND OTHER UTILITY SERVICES: Sufficient utility service availability consistent with the needs of a growing community.

Objective 5.6.2 ENCOURAGE ENERGY-EFFICIENTDEVELOPMENT: Encourage development of energy-efficient buildings, subdivisions, development, and landscape designs.

Policy 5.6.2.1 Require energy conserving landscaping plans for all projects requiring design review or other discretionary approval.

El Dorado County Code

The following sections of the adopted El Dorado County Code related to utilities are applicable to the proposed project.

Liquid Waste (Septage) Management Ordinance

Chapter 8.06, Liquid Waste (Septage) Management, permits liquid waste (septage) haulers and establish fees and other financial assurance mechanisms to ensure the proper treatment and disposal of liquid wastes (septage).

County Solid Waste Management Ordinance

Chapter 8.42, Solid Waste Management, governs the accumulation, storage, collection, and disposal of solid waste generated on residential, commercial, and industrial properties within the County. The ordinance prohibits the disposal or depositing of any hazardous or biomedical waste onto land, into soil, rock, air, or water or at unauthorized disposal sites, transfer stations, resource recovery facilities, buy-back centers, drop-off recycling centers, or any container to be collected and ultimately deposited unless otherwise approved in advance and in writing by the Board of Supervisors or the County Director of Environmental Management.

Construction and Demolition Debris Recycling Ordinance

Chapter 8.43, Construction and Demolition Debris Recycling Within the County, establishes a program for the recycling and salvage of construction and demolition debris. The ordinance requires at least 50 percent of debris from any project, work, or activity which requires an application for building or demolition permit to be diverted from landfills through recycling and reuse. Before the issuance of a permit, the project applicant must file a Debris Recycling Acknowledgment (DRA) with the El Dorado County Environmental Management Division. A Debris Recycling Report demonstrating compliance with the 50 percent diversion goal must be filed within 60 days after final and/or occupancy approval.

Organic Waste Disposal and Diversion Ordinance

Chapter 8.45, Organic Waste Disposal and Diversion, requires commercial business organic waste generators to subscribe to organic waste collection services, or meet self-hauler requirements and establishes guidelines for organic waste storage. Section 8.45.120 requires new construction to comply with the requirements of the CALGreen Code or more stringent County requirements.

County of El Dorado Septic Ordinance

Chapter 110.32, Onsite Wastewater Treatment Systems, establishes standards for the siting, design, installation, operation, and maintenance of onsite wastewater treatment systems (OWTS) in the County that are consistent with the water quality control policy for siting, design, operation, and maintenance of onsite wastewater treatment systems, adopted by the State Water Resources Control Board (SWRCB). The standards and specifications included therein are adopted to prevent the creation of health hazards and nuisance conditions and to protect surface water and groundwater quality.

El Dorado Irrigation District

EID is a public water agency that provides potable, irrigation, and recycled water, as well as wastewater service, directly to retail customers throughout the approximately 220 square mile service area boundary. Formed in 1925 to provide water to El Dorado County, EID serves agricultural needs, urban communities, and rural residences. The District's service area is divided into five political divisions and is governed by a five member, publicly-elected Board of Directors. The project site is located in the EDH Region, which includes Service Zones 1, 2, and 4.

Urban Water Management Plan

EID prepared the 2020 UWMP to comply with the Urban Water Management Planning Act (UWMPA) requirements for urban water suppliers. The 2020 UWMP addresses water management planning efforts to assure adequate water supplies to meet forecast demands over the next 25 years. As required by the UWMPA, the 2020 UWMP specifically assesses the availability of its supplies to meet forecasted water uses during average, single-dry and five consecutive dry years through 2045. The 2020 UWMP is also a comprehensive water planning document that describes existing and future supply reliability, forecasts future water uses, presents demand management progress, and identifies local and regional cooperative efforts to meet projected water use. The UWMP is designed to be a valuable water management and planning tool to guide and inform the EID's Board of Directors, managers, customers and the State of California about its water management practices. The UWMP reflects EID's planning assumptions and goals, and should be used in combination with other planning resources and documents over the 2020 UWMP planning horizon.

Water and Recycled Water Master Plan

The 2024 Water and Recycled Water Master Plan identifies water and recycled water system deficiencies and recommends capital improvements to serve existing customers and additional connections from new development approved by El Dorado County. The planning horizon for the Master Plan is 2045.

Wastewater Facilities Master Plan

The 2013 Wastewater Facilities Master Plan (WWFMP) provides a long-term program for the collection and treatment of wastewater and the use of recycled water resources for EID. The WWFMP provides recommendations and an implementation plan for the development of recommended wastewater and recycled water infrastructure to serve anticipated growth within the EID service area. Key issues addressed within the WWFMP include wastewater discharge alternatives and future role of recycled water, future regulatory requirements, and aging infrastructure. The WWFMP includes estimates of existing and projected wastewater flows from the area served by EID's wastewater collection system. The WWFMP projects wastewater treatment needs for the EID service area based on the El Dorado County General Plan land use

designations and the number of anticipated connections associated with development of specific plans, including the BLHSP. The WWFMP also identifies system expansion and upgrade needs to meet the projected increases in wastewater flows associated with anticipated growth. The WWFMP recommends system enhancements, such as improvements to lift stations and sewer pipelines.

El Dorado County Solid Waste Management Plan

The El Dorado County Solid Waste Management Plan, adopted January 31, 2012, was designed to assist the County with reaching a future 75 percent landfill diversion goal.[19] The plan provides a strategic roadmap to use in planning for coordinated, countywide, and jurisdiction-wide cooperation and initiating near-, intermediate-, and long-term programs and infrastructure strategies. The plan includes the estimated potential diversion gains for each strategy and methods to track strategy progress. The plan also includes estimated costs and funding methods for the program and infrastructure strategies.

Bass Lake Hills Specific Plan

The project site is located within the BLHSP, which includes a Water Plan for the locations of water trunklines and reservoirs needed to serve future development within the BLHSP area, as well as water conservation standards. According to the BLHSP, major water distribution lines to be developed in order to serve buildout of the BLHSP will be located within major street rights-of-way. The BLHSP also includes a Sewer Plan, and wastewater standards. The Sewer Plan identifies future eight-inch gravity lines within Old Bass Lake Road to convey sewage from development on the east side of Bass Lake Road, which would include the proposed project.

4.13.4 IMPACTS AND MITIGATION MEASURES

The section below describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential project-specific impacts related to utilities and service systems. 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 related to utilities and service systems would occur if the proposed project would result in any of the following:

- 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

[19] El Dorado County. *El Dorado County Solid Waste Management Plan*. January 31, 2012.

- Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

Impacts related to groundwater supplies, recharge, and quality, and stormwater drainage facilities are addressed in Chapter 4.7, Hydrology and Water Quality, of this EIR.

Method of Analysis

In order to determine the potential for the proposed project to result in substantial adverse impacts associated with the provision of utilities and service systems, relevant planning documents were reviewed, including, but not limited to, the El Dorado County General Plan and El Dorado County General Plan EIR. In addition, information related to water supply was primarily drawn from the project-specific WSA prepared by Zanjero (see Appendix Q of this EIR). Information related to the proposed septic system was primarily drawn from the Preliminary Sanitary Sewer Feasibility Study prepared by CWE (see Appendix K of this EIR), and information related to the proposed off-site improvements was primarily drawn from the Offsite Utility Improvements Report prepared for the proposed project by CTA Engineering (see Appendix R of this EIR).[20] The method of analysis used in each technical assessment is discussed further below.

Water Supply Assessment

The WSA prepared for the proposed project provides the necessary information for EID to make its determinations, and to comply with the statutory assessment of water supply sufficiency as required by WSA Law. The WSA was adopted by EID's Board of Directors on October 10, 2023. The methodology to determine the estimated water demand of the proposed project is discussed further below. Water demand factors were calculated that correspond with the various commercial and residential features of the proposed project. The water demand factors presented below were multiplied by the quantities from the project description (number of hotel rooms, sf of commercial, dwelling units, mixed-use acres, etc.) to arrive at water demand estimates for each component of the proposed development. All water demands that would be served by EID, both indoor and outdoor, were considered.

Project Development Area

Water demand rate associated with each component of the Project Development Area are discussed below.

Hotels

A value of 115 gallons per day (gpd) was applied to each of the 300 hotel rooms. However, hotels are not always at full occupancy, so the per-room demand factor was adjusted to incorporate the developer's occupancy assumptions. As a conservative assumption, an annual occupancy factor of 80 percent was applied to the demand factor. As shown in Table 4.13-6, the occupancy adjusted annual indoor water demand of the 300 hotel rooms is 31 AFY.

Table 4.13-6
Hotel Indoor Water Use

Rooms	Use Factor (gal/day/room)	Occupancy Factor	Total gal/year	AFY
300	115	80 percent	10,074,000	31

Source: Zanjero, Water Supply Assessment, 2023.

[20] CTA Engineering. *Town and Country Village – El Dorado Water & Sewer Systems*. March 2024.

Ground Floor Retail and Personal Services

The water use factor of the proposed retail space was assumed to be 12 gallons per sf annually, consistent with typical water use intensities for retail commercial space. Thus, a value of 12 gallons per sf annually was applied to 25,600 sf of retail space. Multiplied by the total proposed retail area, a total indoor water demand for the ground floor retail portion of the proposed project would be approximately 307,200 gallons per year (conservatively rounded up to one AFY), as shown below in Table 4.13-7.

Table 4.13-7
Ground Floor Retail Indoor Water Use

Retail Area (sf)	Use Factor (gal/day/sf)	Total gal/year	AFY
25,600	12	307,200	1

Source: Zanjero, Water Supply Assessment, 2023.

Restaurants, Event Venue, and Museum

The Restaurant/Event Venue/Museum is a stand-alone 3-story structure of 21,000 sf (7,000 sf on each floor). The ground floor of the event center building would contain two restaurants, each with a capacity of 120 patrons. Restaurant water use is conservatively estimated at 27.6 gallons per sf per year. This WSA has rounded this demand factor up to 30 gal/year/sf as a conservative assumption. Thus, 30 gallons per year was applied to 7,000 sf of restaurant space.

On the second floor, an event center would operate one to two days per week from 8:00 AM until 12:00 AM with a variable capacity of between 50 and 300 persons. Water use of event venues was estimated as 26 gallons per sf annually when occupied daily. The event center is expected to be occupied only 2 days per week at most, so an occupancy factor of 2/7 (29 percent) was applied.

The third floor of the event center would feature a museum. The museum would be open for visitors one to two days per week from 10:00 AM to 5:00 PM, with 50 to 100 visitors per day anticipated. The museum's indoor water demands was assumed to be similar to that of a retail store of equal size, with all indoor water use attributable to the bathroom use of visitors and staff. Therefore, the retail water demand factor of 12 gallons per sf per year was used for the 7,000 sf museum. Because the museum would only be open 2 days per week, occupancy factor of 2/7 (29 percent) was also applied.

The indoor water use of the Restaurant, Event Venue, and Museum is summarized in Table 4.13-8. In total, the three-story building would demand 0.9 AFY of water for indoor use, which was conservatively rounded up to one AFY.

Table 4.13-8
Restaurant, Event Center, and Museum Indoor Water Use

Project Component	Floor Area (sf)	Use Factor (gal/day/sf)	Occupancy Assumption	Total gal/year	AFY
Restaurant	7,000	30	100 percent	210,000	0.6
Event Venue	7,000	26	29 percent	52,000	0.2
Museum	7,000	12	29 percent	24,000	0.1
Total				**286,000**	**1**

Source: Zanjero, Water Supply Assessment, 2023.

Residential Cottages

The 56 hotel employee housing cottages indoor water demands were estimated using the per capita indoor water use standards, as required by the urban water use objective (UWUO) pursuant to SB 606 and AB 1668, which equates to a maximum of 55 gallons-per-person per day, multiplied by the assumed occupancy rate of 2 persons per cottage. Given that each cottage contains one-bedroom, average occupancy rates higher than 2 persons per cottage are not unlikely. The per-person water use multiplied by the assumed occupancy results in an estimated indoor water demand of 110 gallons per dwelling unit per day, or 6.9 AFY in total for the employee housing cottages. The estimate was conservatively rounded up to 7 AFY.

The 56 rental cottages function as detached hotel rooms. Therefore, the hotel room water demand factor used for the proposed hotels was applied to the rental cottages, which equates to 115 gpd per occupied room. After adjusting by the assumed hotel room occupancy factor of 80 percent, an estimated annual water use of 92 gpd or 5.8 AFY in total for the rental cottages was assumed. The estimate was rounded up to 6 AFY.

The indoor water use of the cottages is shown in Table 4.13-9. Total indoor water use for all 112 cottages is conservatively estimated to be 13 AFY.

Table 4.13-9
Cottage Indoor Water Use

Project Component	Quantity	Use Factor (gal/day/unit)	Occupancy Assumption	Total gal/year	AFY	Unit Demand (AFY/connection)
Employee Cottages	56	110	100 percent	2,248,400	7	0.13
Rental Cottages	56	115	80 percent	1,880,480	6	0.11
Total	**112**	--	--	--	**13**	**0.12**

Source: Zanjero, Water Supply Assessment, 2023.

Landscaping

In the Project Development Area, an estimated 574,464 sf is proposed to be landscaped, which includes the landscaping of both the hotel/event center and the cottages. Outdoor water demands for the Project Demand Area were calculated based on the regulations and calculation methodologies contained in MWELO. The WSA prepared for the proposed project used individual calculations for estimated total water use organized by hydrozone, with each hydrozone composed of plants clustered together with similar water, sun, and soil requirements. The plants within the hydrozones include shrubs (low water use), trees (medium water use), and turf (high water use). Using the specific values provided in the proposed project's landscaping plans, the estimated total water use for landscaping of the Project Development Area landscaping was calculated. As shown in Table 4.13-10, the estimated total water use for the Project Development Area landscaping is 23.8 AFY.

Table 4.13-10
Estimated Total Water Use for Project Development Area Landscaping

Hydrozone	Landscape Area (sf)			Plant Factor	Irrigation Efficiency	Total Water Use	
	Hotel/Civic	Cottages	Total			gal/year	AFY
Shrubs – Low	275,315	180,712	456,027	0.3	0.81	5,350,007	16.4
Shrubs – Medium	30,590	60,238	90,828	0.5	0.81	1,775,957	5.5
Bio – Medium	22,429	2,189	24,618	0.5	0.75	519,863	1.6
Turf – High	--	2,991	2,991	0.8	0.75	101,058	0.3
Total	**328,334**	**246,130**	**574,464**			**7,746,886**	**23.8**

Source: Zanjero, Water Supply Assessment, 2023.

Swimming Pool and Water Features

The Project Development Area would include three swimming pools, with one pool in the courtyard of the hotel, and two pools in the cottages area, as well as six water features, including a recirculating stream, a monument sign with water, a cottage pond water feature, a themed miner trough and stock pond, a cottage upper pond and waterfall, and cascading step fountains at the hotel. Because the exact sizes of the various water features are not yet specified by the project applicant, conservatively high assumptions were made for the size of each water feature. To estimate the evaporative water use of each of the water features, the reference evapotranspiration of 51.1 inches per year was applied. The calculations are shown below in Table 4.13-11. In total, the three pools and six decorative water features are expected to consume 1.6 AFY. Because of the uncertainty about the exact size of the water features, the WSA conservatively rounded up the total water use to two AFY.

Table 4.13-11
Swimming Pool and Water Feature Water Use

Water Feature	Estimated Size (sf)	gal/year	AFY
Hotel Pool	1,000	31,682	0.1
Cottage Pool 1	1,000	31,682	0.1
Cottage Pool 2	1,000	31,682	0.1
Recirculating Stream	1,000	31,682	0.1
Monument Sign	100	3,168	<0.1
Cottage Pond	10,000	316,820	1.0
Themed Miner Trough and Stock Pond	1,000	31,682	0.1
Cottage Upper Pond and Waterfall	200	6,336	<0.1
Hotel Cascading Step Fountain	1,000	31,682	0.1
Total	**16,300**	**516,417**	**1.6**
Conservatively Rounded Total			**2**

Source: Zanjero, Water Supply Assessment, 2023.

Program Study Area

The indoor water use of the Program Study Area reflects demands from both the residential and non-residential components of the mix of uses.

The residential elements of the Program Study Area would be built in accordance with all applicable building codes and efficiency regulations including the CalGreen Code and UWUO, discussed previously. Indoor demands were therefore estimated using an assumed value of 55 gallons-per person per day, multiplied by the assumed occupancy rates of the various housing types.

For the 352 multi-family residential units, the average occupancy rate for the EDH region used in the 2020 UWMP was used, which equates to 2.95 persons per dwelling unit. The Mixed-Use Commercial portion of the Program Study Area includes both senior housing and conventional apartments/condos. For the 150 proposed senior housing units, a lower occupancy rate of two persons per dwelling unit was assumed. The 2020 UWMP occupancy rate for the EDH region of 2.95 persons per dwelling unit was used for the 200 apartments/condos within the mixed-use commercial area. The total residential water use associated with the Program Study Area is shown in Table 4.13-12.

Table 4.13-12
Program Study Area Residential Indoor Water Use

Land Use	Number of Dwelling Units	Occupancy Rate	Water Use Per Unit (AF)	Total Water Use (AFY)
Multi-Family Residential	352	2.95	0.18	64
Mixed-Use Senior Housing	150	2.0	0.12	18
Mixed-Use Condos	200	2.95	0.18	36
Total	**702**	**--**	**--**	**119**

Source: Zanjero, Water Supply Assessment, 2023.

The non-residential indoor water demand of the Program Study Area would be from the proposed 90,000 sf of commercial building area, spread across 11.9 acres. While the specific commercial activities are unknown at this time, potential uses include medical services, restaurants, retail, and offices. The non-residential unit water demands for the commercial land uses are highly dependent on the actual businesses and activities on each parcel. For example, inpatient health care water usage can be as high as 50 gallons per sf annually, while warehouse and storage water use is as low as three gallons per sf annually. As a conservative assumption, a water use factor of 35 gallons per sf annually was assumed to reflect the spectrum of possible commercial activities on an average basis across the entire Program Study Area. The total non-residential water use is shown in Table 4.13-13.

Table 4.13-13
Program Study Area Non-Residential Indoor Water Use

Commercial Building Area (sf)	Demand Factor (gal/year/sf)	Demand (gal/year)	Demand (AFY)
90,000	35	3,150,000	10

Source: Zanjero, Water Supply Assessment, 2023.

Outdoor water use in the Program Study Area would be required to comply with MWELO, with the maximum legally permissible water use defined by the MAWA equation as described above. Therefore, outdoor water use was estimated based on the extent of irrigated landscape area in

each land use category. For the proposed 15.1 acres of Multi-Family Residential, the 352 dwelling units were assumed to include a variety of attached multi-family apartment buildings, with parking and drive aisles. The Multi-Family Residential dwelling unit type is typically associated with community controlled outdoor spaces, so the average outdoor demands are low per unit. 15 percent of the gross area in the land use category was assumed to be landscaped common area, with the remainder consisting of building footprint, street, walkways, and other hardscaped areas.

For the proposed 11.9 acres of Mixed-Use Commercial development (5.0 acres of Mixed-Use Senior Housing and 6.9 acres of Mixed-Use Commercial with apartments and condos), the majority of the gross area in the land use categories was assumed to be taken up by buildings, parking, and other hardscape. Therefore, 10 percent of the gross area was estimated to be irrigated landscaping for the 11.9 acres of Mixed-Use Commercial development.

The outdoor water use in the Program Study Area is shown in Table 4.13-14. In total, 6.6 AF of outdoor water demand is estimated, which has been conservatively rounded up to seven AFY.

Table 4.13-14
Program Study Area Outdoor Water Use

Land Use		Total Area (acres)	Percent of Total Area Irrigated	Total Irrigated Area (acres)	Total Demand (AFY)
Multi-Family Residential		15.1	15 percent	2.3	4.3
Commercial	Mixed-Use Senior Housing	5.0	10 percent	0.5	1
	Mixed-Use Commercial and Condos	6.9	6.9 percent	0.7	1.3
Open Space		3.2	3.2 percent	0	0
Total		**30.2**	**--**	**3.5**	**7**

Source: Zanjero, Water Supply Assessment, 2023.

Sanitary Sewer Feasibility Study

The Preliminary Sanitary Sewer Feasibility Study included an estimation of wastewater flows that would be generated by the proposed hotels, cottages, restaurants, event venue, and restaurants. The purpose of the Preliminary Sanitary Sewer Feasibility Study was to evaluate the feasibility and design of the proposed on-site septic system that could support the Project Development Area.

In order to determine soil suitability and the most feasible location within the project site for the proposed septic system leach field, the Preliminary Sanitary Sewer Feasibility Study primarily relied on the analysis conducted as part of the Preliminary Onsite Wastewater Percolation and Mantle Testing Study prepared by Youngdahl Consulting Group, Inc. (Younghdahl) for the proposed project (see Appendix C of the Preliminary Sanitary Sewer Feasibility Study).

Youngdahl performed percolation testing within the project site on both January 18, 2022 and June 9, 2022, for determining percolation rates for areas associated with the residential sewage disposal area and the hotels, restaurants, retail and convention center sewage disposal area, respectively. Younghdahl used eight-inch diameter electric augers to advance borings to depths of between one to three feet. Percolation testing apparatus with pea gravel packing was installed

into each boring, and water was added to a height of 12-inches above the hole bottoms and maintained for a period of four hours. On the following days, water was added to depths of at least six-inches above the hole bottoms and the rate of the drop was measured for four hours, with refilling performed as necessary. In general, the one to two foot shallow soils were found to have good percolation rates. Soils at depths of more than 2.5 feet did not percolate well and should not be used for disposal.

Residential Sewage Disposal Area

Based on the Youngdahl report dated March 13, 2022 report and pursuant to Table 5 of the El Dorado County Onsite Wastewater Treatment Systems Manual, a 109 minute per inch percolation rate translates to an application rate of 0.48 gpd/sf on Assessor's Parcel Number (APN) 119-080-21 using a typical trench dimension of two feet deep by three feet wide. Use of the septic system would require approximately 5,833 lineal feet of leach lines, which would equate to a minimum primary disposal area of approximately 70,000 sf, or 1.61 acres. The County requires a 300 percent replacement area (or three times the primary disposal area) in the event the primary leach field fails. Including the 300 percent replacement system, the total required area of leach fields for the cottages would be approximately 6.43 acres (Primary and Replacement Area).

Hotels, Restaurants, Retail, and Convention Center Sewage Disposal Area

Based on the Youngdahl report dated June 30, 2022 report and pursuant to Table 5 of the El Dorado County Onsite Wastewater Treatment Systems Manual, a 19.1 minute per inch percolation rate translates to an application rate of 1.14 gpd/sf on APN 119-080-12 using a typical trench dimension of two feet deep by three feet wide. Use of the septic system would require approximately 6,996 lineal feet of leach lines, which would equate to a minimum primary disposal area of approximately 83,947 sf, or 1.93 acres. Including the 300 percent replacement system the total would be approximately 7.7 acres (Primary and Replacement Area). Because the area available on APN 119-080-12 is approximately 7.7 acres, all sewage flows could be disposed on the site.

Offsite Utility Improvements Report

The Offsite Utility Improvements Report included a description of the proposed offsite water and sewer improvements.

Water demands for each component of the proposed project were estimated based on the EID Water, Sewer, and Recycled Water – Design and Construction Standards. Based on such estimations, total water demand for the Project Development Area and Program Study Area was assumed to be 274.66 AF or 165.40 gallons per minute (gpm). Peaking factors of 1.5 and 2.0 for multi-family and commercial land uses, respectively, were applied to the average daily demand., resulting in a maximum daily demand of 257.55 gpm. A peaking factor of 2.5 for both multi-family and commercial uses were also applied to the average daily demand for peak hour flows, resulting in a peak hour demand of 413.51 gpm.

Sewer demands for the proposed land uses were estimated based on the Preliminary Sanitary Sewer Feasibility Study, discussed above, and the EID Water, Sewer, and Recycled Water – Design and Construction Standards. Based on such estimations, the Project Development Area and Program Study Area were estimated to generate an ADWF of 114,530 gpd. A peaking factor of 4.0 was applied to the ADWF demands, which results in a peak wet weather flow (PWWF) of 458,120 gpd.

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 identified above.

4.13-1 Require or result in the relocation or construction of new or expanded water, wastewater treatment, 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*.

Impacts on the water, wastewater treatment, electric power, natural gas, and telecommunications facilities associated with the proposed project are discussed separately below. Stormwater drainage facilities are addressed in Chapter 4.7, Hydrology and Water Quality, of this EIR.

Water Supply Infrastructure

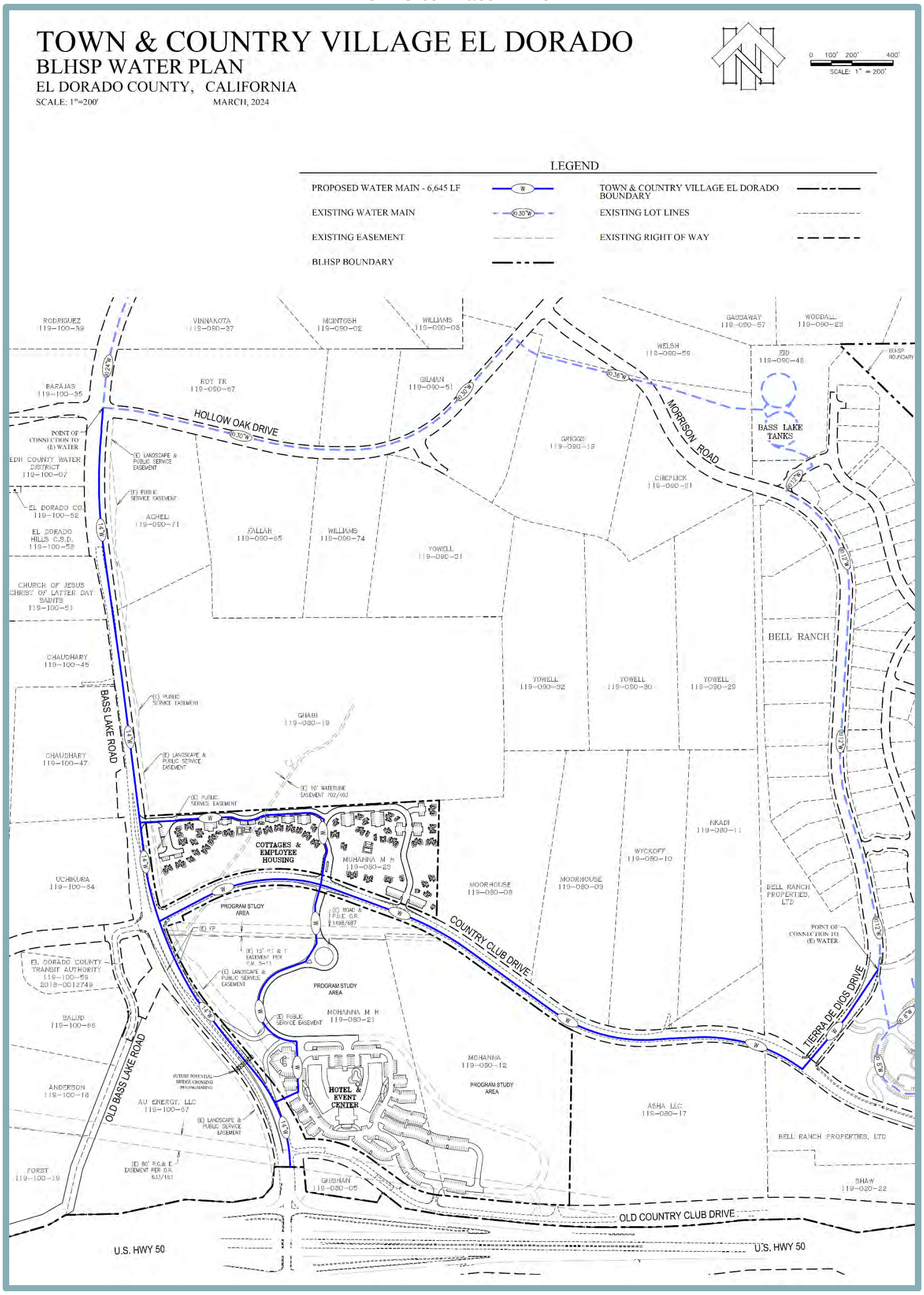
Given that both the Project Development Area and Program Study Area would result in the development of similar land uses on contiguous parcels and the proposed connection to the existing water line would serve the entirety of the project site, the following discussion applies to the potential for both components of the proposed project to require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

Project Development Area and Project Buildout

The nearest existing water line is a 24-inch water main located in Bass Lake Road, approximately 2,000 feet north of the project site. A new 12-inch water line would be installed in Bass lake Road for approximately 3,900 linear feet to a point of connection with the existing 24-inch water line in Hollow Oak Drive. The southerly terminus of the new line in Bass Lake Road would be stubbed north of the interchange. In addition, a second water line option is being considered to the east of Bass Lake Road, within the alignment of the approved Bass Lake North Bike Trail that is planned to extend along the east side of Bass Lake Road from Hollow Oaks Drive to Old Country Club Drive. An existing 12-inch line located in Tierra De Dios Drive, located approximately 2,200 feet east of the project site, would also be connected to a proposed water line in Country Club Drive in order to loop the system (see Figure 4.13-1).

Installation of the new water supply infrastructure would occur either in areas that have been previously disturbed as part of development of the existing roadways, or in areas proposed for disturbance as part of development of the proposed project or other planned projects (e.g., the Bass Lake North Trail). All potential physical environmental impacts that could result from implementation of the proposed project, including new utility infrastructure, have been evaluated throughout the technical chapters of this EIR.

Figure 4.13-1
Off-Site Water Line



In addition, the new water infrastructure would be designed and constructed in accordance with the applicable standards set forth in the EID Water, Sewer, and Recycled Water Design and Construction Standards, ensuring the new water lines are constructed in conformance with proper materials and sizing.[21] Implementation of applicable mitigation measures included in Chapter 4.3, Biological Resources, and Chapter 4.4, Cultural Resources, would ensure that construction of the off-site water line would not cause significant impacts related to special-status plant or wildlife species, wetlands, or cultural resources. Based on the above, the proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects, and a less-than-significant impact would occur.

Wastewater Infrastructure

Two options are being considered and evaluated in this EIR to provide sewer service to the project site: construction of an on-site septic sewer system, and a connection to the public sewer system through construction of off-site sewer pipelines.

The on-site septic sewer system is being proposed as an interim solution for the Project Development Area of the project site. A study by Youngdahl Consulting Group determined that the Program Study Area of the project site is the most likely suitable area for construction of a septic system leach field. It is anticipated that the Project Development Area would initially include development of the proposed on-site septic system. Connection of the proposed project to the public sewer system is anticipated to occur at such time future development within the Program Study Area commences.

With regard to the proposed connection to the public sewer system, two off-site sewer pipe alignments are being considered in this EIR, with substantial overlap between the two alignments. In general, the off-site sewer pipe improvements would require the construction of an approximately 10,510-linear-foot BLHSP sewer main connecting the project site to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Road, approximately 1.6 miles to the west of the project site.

The following sections provide discussions related to the wastewater infrastructure associated with each phase of the proposed project.

On-Site Septic System

The Preliminary Sanitary Sewer Feasibility Study evaluated three septic design options for the Project Development Area. The preferred alternative is a capping fill or mound system septic disposal system, which would require a pressure system with the disposal areas uphill of the septic tanks. The pressure system components would be comprised of a septic tank, pump tank, and dispersal field. The dispersal field trenches would be between one and two feet deep, and three feet wide, and would be constructed with a minimum of one foot of capping fill. The preferred alternative system would be required to be designed with the applicable standards of the El Dorado County Onsite Wastewater Treatment Systems Manual.[22]

[21] El Dorado Irrigation District. *Design and Construction Standards*. July 1999.
[22] El Dorado County Environmental Management Department. *Local Agency Management Plan & Onsite Wastewater Treatment System Guide*. Updated September 10, 2018.

Pursuant to the Onsite Wastewater Treatment Systems Manual, a minimum effective soil depth of five feet below the design depth is required; however, the two- to three-foot depth of practical soil eliminates the feasibility of using traditional leaching trenches. Thus, a Special Design Onsite Wastewater Treatment System would be required. Because the proposed project would exceed 10,000 gpd, approval from the Central Valley RWQCB would be required for the development of the proposed septic system.

The proposed on-site wastewater treatment system would be required to adhere to all requirements included in Chapter 110.32, Onsite Wastewater Treatment Systems, of the El Dorado County Code, which establishes standards for the siting, design, installation, operation, and maintenance of OWTS in the County that are consistent with the water quality control policy for siting, design, operation, and maintenance of onsite wastewater treatment systems, adopted by the SWRCB. Compliance with the aforementioned standards and permit requirements would ensure that the proposed OWTS would not cause significant environmental effects.

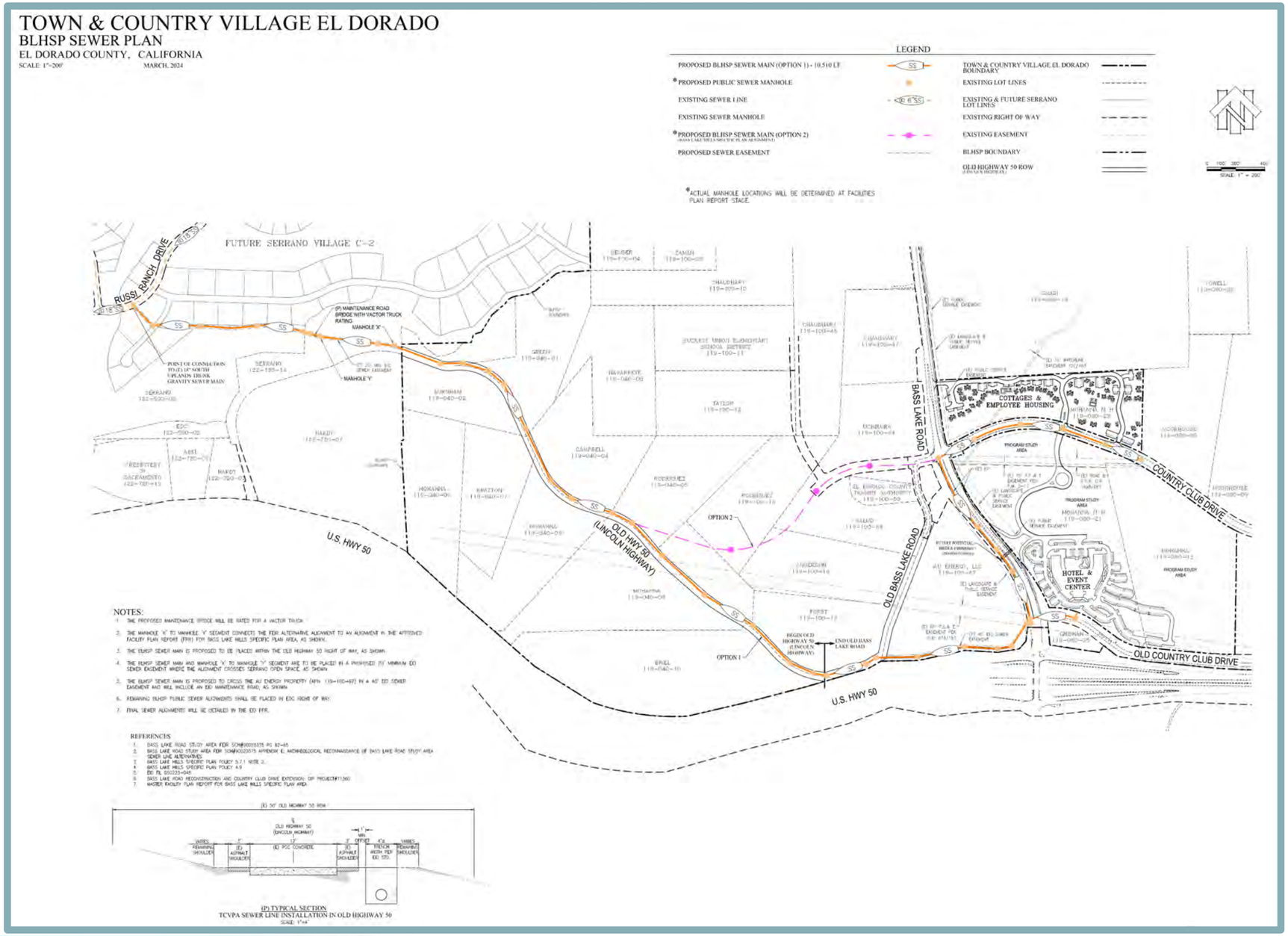
The 6.43 -acre septic leach field for the cottage site and the 7.7-acre septic leach field for the hotels, restaurants, retail, and convention center would both be located within the Program Study Area (please refer to Figure 4.5-3, Preliminary Septic System Layout, within Chapter 4.5, Geology and Soils, of this EIR). All potential physical environmental impacts that could result from implementation of the proposed project, including the proposed septic system, have been evaluated throughout the technical chapters of this EIR.

Connection to EID Public Sewer System

As previously discussed, while it is anticipated that the proposed project would not be connected to EID's public sewer system until future development within the Program Study Area commences, the applicant may choose to pursue this connection earlier in order to provide the Project Development Area with public sewer service. If the applicant chooses to obtain the requisite permits from the RWQCB and build an on-site septic system to serve the Project Development Area, then the septic system would need to be abandoned prior to future development within the Program Study Area in accordance with the standard El Dorado County procedures. The proposed project would be required to connect to the public sewer system prior to development of the Program Study Area, and the applicant would apply for a permit with the El Dorado County Environmental Management Department to abandon the septic system, which would be subject to inspection and approval. The septic tanks would be disconnected, emptied, and either destroyed or filled prior to development of the Program Study Area.

As shown in Figure 4.13-2, two off-site sewer pipe alignments are being considered in this EIR, with substantial overlap between the two alignments. In general, the off-site sewer pipe improvements would require the construction of an approximately 10,510-linear-foot BLHSP sewer main connecting the project site to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Road, approximately 1.6 miles to the west of the project site.

Figure 4.13-2
Off-Site Sewer Line



However, as shown in Figure 4.13-2, while both Option 1 and Option 2 would run along the project's Country Club Drive frontage, Option 1 would run south along Bass Lake Road, and then continue along Lincoln Highway north to Russi Ranch Road, while Option 2 would instead continue west past the Country Club Drive/Bass Lake Road intersection, meeting Lincoln Highway to continue north to Russi Ranch Road.

In order to receive public sewer service from EID, the project site would need to be annexed into the EID service area, subject to El Dorado LAFCo approval. The Silva Valley – EDH Sewer Line that conveys sewer flows from the existing 18-inch South Uplands Truck Sewer Gravity Main has sufficient capacity to accommodate the flows from the proposed project, though upsizing may be needed for cumulative development in the project area.[23] See Impact 4.13-5 for further discussion.

As discussed, all potential physical environmental impacts that could result from implementation of the proposed project, including the off-site sewer line, have been evaluated throughout the technical chapters of this EIR. In addition, the new sewer infrastructure would be designed and constructed in accordance with the applicable standards set forth in EID Water, Sewer, and Recycled Water Design and Construction Standards, which includes minimum requirements related to proper materials and sizing.

Installation of the new wastewater supply infrastructure would occur either in areas that have been previously disturbed as part of development of the existing roadways, or in areas proposed for disturbance as part of development of the proposed project or other planned projects (e.g., the BLHSP). Additionally, implementation of applicable mitigation measures included in Chapter 4.3, Biological Resources, and Chapter 4.4, Cultural Resources, would ensure that construction of the off-site sewer line would not cause significant impacts related to special-status plant or wildlife species, oak woodland, or cultural resources. All potential physical environmental impacts that could result from implementation of the proposed project, including new utility infrastructure, have been evaluated throughout the technical chapters of this EIR.

Electricity and Telecommunications Infrastructure

Given that both the Project Development Area and Program Study Area would result in the development of similar land uses on contiguous parcels and the proposed connection to the existing electricity and telecommunications infrastructure would serve the entirety of the project site, the following discussion applies to the potential for both components of the proposed project to require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

Project Development Area and Project Buildout

PG&E operates electric transmission and distribution facilities within 80-foot easements on the southern portion of the project site. Electric and natural gas service would be supplied to the project site by PG&E. In addition, solar panels would be installed on the hotel and Event Center/Museum roofs. The proposed project would

[23] Brink, Mike, Supervising Engineer, El Dorado Irrigation District. Personal Communication [phone] with Nick Pappani, Vice President, Raney Planning and Management, Inc., April 10, 2024.

include new connections to existing electric transmission and distribution lines along the southern portion of the project site. In addition, the proposed project would include new connections to an existing gas line located in the vicinity of the project site at the intersection of Bass Lake Road and Hollow Oak Drive.

As discussed above, the proposed project would require an off-site water line connection north along Bass Lake Road to its intersection with Hollow Oak Drive. Thus, the proposed gas line and water line extensions could be located within the same alignment, and, therefore, installation of the new gas infrastructure would occur either in areas that have been previously disturbed or in areas proposed for disturbance as part of development of the proposed project. According to the BLHSP, new electricity and telecommunications infrastructure would be required to be installed underground.

Based on the above, development of the proposed project would not require or result in the relocation or construction of new or expanded electricity, natural gas, and telecommunications facilities, the construction or relocation of which could cause significant environmental effects, and a less-than-significant impact would occur.

Conclusion

Based on the above, development of proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.13-2 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, single dry, and multiple dry years. Based on the analysis below, the impact is *less than significant*.

As discussed above, the majority of water provided to the EDH water system is obtained under rights and entitlements from the Folsom Reservoir under contract with the USBR. The USBR must approve the inclusion of any additional parcels served by water taken from Folsom Reservoir. Therefore, the annexation of the project site into the EID service area would require approval from the USBR.

The following discussions include an analysis of water demand associated with development of both the Project Development Area and the Program Study Area, and evaluates EID's capacity to serve water demand for both components of the proposed project.

Project Development Area – Water Demand

The Project Development Area would include development of two hotels, retail services, two restaurants, a museum, an event center, parking, and 112 residential

cottages, as well as various associated improvements. Thus, the project would result in increased demand for water supplies relative to existing conditions. According to the WSA prepared for the proposed project, the Project Development Area would be anticipated to result in a total daily water demand of approximately 72 AFY (see Table 4.13-15). Of the 72 AFY estimated for the total Project Development Area water demand, 46 AFY would be associated with the proposed indoor uses, and 26 AFY would be associated with the proposed outdoor uses.

Table 4.13-15
Estimated Project Development Area Water Demand

Land Use	Quantity	AFY
Indoor Uses		
Hotel	300 rooms	31
Retail	25,600 sf	1
Restaurant, Event Center, and Museum	21,000 sf	1
Cottages	112 units	13
Outdoor Uses		
Landscaping	574,464 sf	24
Water Features	16,300 sf	2
Total		**72**

Sources: Zanjero, Water Supply Assessment, 2023.

Program Study Area – Water Demand

In addition to the Project Development Area, the proposed project would include future development of the 30.2-acre Program Study Area, which may include a mix of uses such as hotels, senior housing units, medical facilities, townhomes and cottages, and other uses allowed by County zoning. The total water use of the Program Study Area is conservatively estimated as approximately 135 AFY. The values for each potential land use are summarized in Table 4.13-16.

Table 4.13-16
Summary of Program Study Area Water Demands

Land Use Category	Total Area (acres)	Indoor Residential Demand	Indoor Non-Residential Demand	Outdoor Demand	Total Demand
		AFY			
Multi-Family Residential	15.1	64	0	4.3	68
Mixed-Use Senior Housing	5.0	18	1	1	21
Mixed-Use Commercial & Condos	6.9	36	9	1.3	46
Open Space	3.2	0	0	0	0
Total	**30.2**	**119**	**10**	**7**	**135**

Project Buildout – Water Demand

Across the entire 60.5 acres of development, including the Project Development Area and Program Study Area, the proposed project would require approximately 207 AFY of water demand, as summarized in Table 4.13-17.

Table 4.13-17
Summary of Proposed Project Water Demands

Planning Area	Total Water Demand (AFY)
Project Development Area	72
Program Study Area	135
Total	**207**

Supply vs. Demand

As detailed in Chapter 2 of the 2020 UWMP, EID identified several categories of growth that would result in increased demand on their water supplies: (1) Facility Improvement Letters (FILs) reflecting development projects known to EID, and (2) additional "Future Beyond FILs" growth beyond the current FILs on existing vacant parcels that are greater than 10 acres. The proposed project is located within the area covered by the BLHSP, which is portrayed by the 2020 UWMP as a "known FIL", but the proposed project was not listed as its own specific FIL. Therefore, the 2020 UWMP has clearly identified the project site as developable, but the UWMP has not considered the specific details of the proposed project in its growth projection. Therefore, the proposed project must be compared to the additional "Future Beyond FILs" growth contemplated by the UWMP.

The proposed project is located in the EDH Region,[24] which the 2020 UWMP estimates could add at ultimate buildout over 25,000 Equivalent Dwelling Units (EDU), defined as the number of residential "dwelling units" that each project would reflect regardless of whether the project includes residential or non-residential land uses. Approximately 45 percent of 25,000 EDUs at buildout are represented by existing FILs, and the remaining EDUs are accounted for by vacant parcels over 10 acres in size for which EID does not currently have a FIL.

However, the 2020 UWMP does not plan for all EDUs possible at buildout to be built by 2045. Rather, slower growth is assumed: based on the annual growth rate of slightly over one percent, the 2020 UWMP conservatively estimates 7,054 new residential units will be built from 2020 through 2045 in the EDH region, with 86 percent expected to be single-family homes, and the remainder to be multi-family. Based on the existing ratio of residential to non-residential connections, an additional 375 non-residential connections were assumed to be added in the EDH region by 2045.

The proposed project is a mixed-use development which could include up to 814 residential dwelling units, or approximately 11.5 percent of the total new homes EID forecasts to be constructed by 2045. The proposed project would also include two

[24] EID divides its service area into three geographic regions based on water use characteristics and infrastructure. The EDH region is defined as including the District's Service Zones 1, 2 and 4 which represent the communities of Bass Lake, El Dorado Hills and Cameron Park. It should be noted that such definition of the EDH region is different than that used by the El Dorado County General Plan.

hotels, two restaurants, an event venue, a museum, and 90,000 sf of additional commercial space, which could be easily accommodated within the 375 new non-residential connections expected by 2045. Therefore, the proposed project is within the predicted growth considered by the 2020 UWMP.

While EID has historically had reliable water supplies to meet customer demands during droughts, and forecasts continued system reliability through 2045, it should be noted that EID has implemented a Drought Action Plan to reduce customer demand a number times in recent years. Drought restrictions have occurred for three reasons. First, the Governor has declared statewide drought emergencies, most recently in 2021, ordering the SWRCB to adopt emergency regulations requiring urban water suppliers, such as EID, to implement water shortage response actions. EID has complied with State orders, despite having water supplies that were sufficient to meet customers' demands throughout recent droughts. Second, EID implemented temporary restrictions in the immediate aftermath of the 2021 Caldor Fire, which damaged the El Dorado Canal and impacted source water quality. The damage to the El Dorado Canal was repaired less than a year after the Caldor Fire occurred, and the temporary restrictions were lifted. Lastly, EID has experienced shortages in the Outingdale Service Area, which is a small satellite system not connected to the main EID distribution system. The history of supply shortages in the Outingdale Service Area during droughts reflect less reliable water supplies for the satellite system specifically, but do not indicate unreliable water supplies for EID as a whole. Therefore, the events in which EID implemented its Drought Action Plan in recent years were not caused by a water supply shortage for EID's main system, and therefore do not conflict with the reliability conclusions presented above.

A sensitivity analysis was conducted to evaluate the availability of water supplies in the event that the proposed project's 207 AFY of water demand was in excess of EID's projected future water demands. As shown in Table 4.13-3 and Table 4.13-4, EID projects that its water supplies will exceed its water demands by over 11,000 AFY in all scenarios considered by the 2020 UWMP. Therefore, EID is projected to maintain a supply which exceeds its projected demands by greater than 11,000 AF in normal water years, single dry water years, and multi-year droughts from 2025 through 2045. Therefore, even if the proposed project's 207 AFY of water demand was not included in EID's future demand growth anticipated by the 2020 UWMP, EID would still have sufficient water supplies to serve the proposed project.

Conclusion

Based on the above, EID has sufficient water supply to meet the anticipated water demands of the proposed project. Therefore, the proposed project would have sufficient water supplies available to serve buildout of the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

4.13-3 Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Based on the analysis below, the impact is *less than significant*.

As discussed above, it is anticipated that the Project Development Area would initially include development of the proposed on-site septic system. Connection of the proposed project to the public sewer system is anticipated to occur at such time future development within the Program Study Area commences. The following discussion includes an analysis of potential impacts related to the available capacity with which the EDH WWTP would be able to serve full Project Buildout, after the project site has been connected to the public sewer system.

Project Buildout

As discussed above, wastewater from the project site would be treated at the EDH WWTP, which is operated by EID. The EDH WWTP discharges tertiary treated effluent to Carson Creek under an existing NPDES permit. The NPDES permit includes Waste Discharge Requirements, which include stringent effluent limitations for ammonia, aluminum, cadmium, carbon tetrachloride, cyanide, dibromochloromethane, dichlorobromomethane, iron, manganese, mercury, total chlorine residual, and zinc. EDH WWTP is currently in compliance with all existing permitting, and, thus, effluent meets the Regional Water Quality Control Board (RWQCB) requirements within the NPDES permit. By permitting the EDH WWTP for a maximum ADWF of 4.0 mgd, the RWQCB has determined that the EDH WWTP can treat 4.0 mgd of wastewater without exceeding the NPDES discharge requirements.

Sewer demands for full Project Buildout are displayed below in Table 4.13-18. As shown therein, sewer demand for Project Buildout would equate to an ADWF of approximately 114,530 gpd. A peaking factor of 4.0 is applied to the ADWF demands and results in a PWWF of 458,120 gpd. The EDH WWTP has a permitted capacity of 4.0 mgd, and a current ADWF of approximately 2.6 mgd.[25] Thus, there is adequate capacity in the WWTP to accommodate the full sewer generation from the proposed project.

Based on the above, the proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate wastewater treatment capacity to serve the project's projected demand in addition to the provider's existing commitments. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

[25] Brink, Mike, Senior Engineer, El Dorado Irrigation District. Personal Communication [email] with Nick Pappani, Vice President, Raney Planning & Management, Inc. April 8, 2024.

Table 4.13-18
Project Buildout Mean Annual Sewer Demands

Land Use	Average Dry Weather Flow Rates By Land Use	Average Dry Weather Flow (gpd)	Peak Wet Weather Flow (gpd)[2]
Project Development Area			
Multi-Family Residential (112 Units)	100 gpd/unit[1]	11,200	44,800
Hotels (375 Beds)	60 gpd/bed[1]	22,500	90,000
Restaurants (2)	4,200 gpd/restaurant[1]	8,400	33,600
Retail, Event Center, Museum	1000 gpd total[1]	1,000	4,000
Subtotal		**43,100**	**172,400**
Program Study Area			
Multi-Family Residential (352 Units)	100 gpd/unit[1]	35,200	140,800
Multi-Family Residential (200 Apartments and 150 Senior Units)	100 gpd/unit[1]	35,000	140,000
Commercial	500 gpd/acre[3]	1,230	4,920
Subtotal		**71,430**	**285,730**
Project Buildout Total		**114,530**	**458,120**

1 Pursuant to Preliminary Sanitary Sewer Flows Report by CWE-RFE
2 Peak Flow Factor of 4 applied to ADWF
3 Pursuant to EID Water, Sewer, and Recycled Water – Design and Construction Standards: Sewer Design Standards

Source: CTA Engineering, 2024.

4.13-4 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste. Based on the analysis below, the impact is *less than significant*.

As previously discussed, the project site is not currently served by a solid waste service provider. As part of project approval, solid waste and recycling collection services would be provided by EDD, which serves the western portion of El Dorado County. Recyclables and solid waste collected by EDD are ultimately disposed of at the Potrero Hills Landfill, located at 3675 Potrero Hills Lane in Suisun City. The Potrero Hills Landfill is permitted to accept a daily maximum of 4,330 tons of waste. The landfill

receives a maximum permitted disposal of 2,500 tons per day,[26] and is anticipated to cease operations in 2059. [27]

The following includes an analysis of the capacity of the Potrero Hills Landfill to serve both the Project Development Area and full Project Buildout.

Project Development Area

Overall, the Project Development Area could result in a maximum building square footage of 243,72 sf, including a total of 160,000 sf between the two proposed hotels, a 21,000 sf Event Center/Museum, and a total of 62,720 sf between 112 residential cottages. As such, the Project Development Area is reasonably assumed to include 62,720 sf of residential building square footage and 181,000 sf of non-residential building square footage. According to the U.S. Environmental Protection Agency (USEPA) report, Estimating 2003 Building-Related Construction and Demolition Materials Amounts, residential construction activities generate an average of 4.39 pounds per square foot (lbs/sf) of waste and non-residential construction activities generate an average of 4.34 lbs/sf of waste.[28] Therefore, applying such an amount to buildout of the Project Development Area would produce approximately 1,060,881 lbs (530.4 tons) of construction waste (4.39 * 62,720 + 4.34 * 785,540).

The CALGreen Code requires at least 65 percent diversion of construction waste for projects permitted after January 1, 2017. As such, a minimum of 344.8 tons of waste would be diverted away from landfill disposal during construction. Considering the applicable CALGreen Code requirements, buildout of the Project Development Area would be anticipated to produce up to 185.6 tons of waste during construction, using conservative assumptions. Construction waste generation represents a short-term increase in waste generation. Considering that the Potrero Hills Landfill is permitted to accept a peak daily waste flow of 4,330 tons and is anticipated to continue operations until 2059, the Project Development Area construction waste would represent only an incremental contribution to the waste received at the landfill, and a less-than-significant impact would occur.

Operational solid waste generation from the Project Development Area has been estimated based on an average waste generation rate for households, commercial square footage, and hotel rooms, as published by CalRecycle.[29] The total number of residences would produce approximately 1369.76 lbs/day (0.68 tons/day) (112 * 12.23) of operational solid waste. The two hotels would produce approximately 1,200 lbs/day (0.6 tons/day) (300 * 4). The commercial square footage within the Event Center/Museum would produce approximately 273 lbs/day (0.1365 tons/day) (21,000 sf/1,000 * 13 lbs) of operational solid waste. Overall, operational solid waste associated with the Project Development Area would total approximately 1.42

[26] WasteWORKS. *Potrero Hills Landfill in Solano County*. Available at: https://www.wasteworksonline.com/potrero-hills-landfill/. Accessed May 2024.
[27] U.S. Environmental Protection Agency. *GHG Data, Potrero Hills Landfill*. Available at: https://ghgdata.epa.gov/ghgp/service/html/2022?id=1007345&et=undefined. Accessed May 2024.
[28] U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts.* 2009.
[29] California Department of Resources Recycling and Recovery. *Estimated Solid Waste Generation Rates*. Available at: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed April 2024.

tons/day. Considering that the Potrero Hills Landfill is permitted to accept a peak daily waste flow of 4,330 tons/day and is anticipated to continue operations until 2059, the Project Development Area operational waste would represent only an incremental contribution to the waste received at the landfill, and a less-than-significant impact would occur.

Project Buildout

Development of the Program Study Area consists of 30.2 acres, and may consist of uses such as hotels, senior housing units, medical facilities, townhomes, retail shops, and cottages and other uses allowed by the zoning district. While exact development information is currently unknown, the Program Study Area would include a total of 702 residential units and 90,000 sf of commercial uses. However, the total building square footage of the future multi-family residential and senior housing units is currently unknown. As discussed above, pursuant to the CALGreen Code, at least 65 percent diversion of construction waste is required for projects permitted after January 1, 2017. In addition, construction waste generation represents a short-term increase in waste generation. Therefore, Project Buildout would not result in a significant impact related to solid waste generation during future construction activities.

Operational solid waste generation from the Program Study Area has been estimated based on an average waste generation rate for households and commercial square footage, as published by CalRecycle. The total number of residences within the Program Study Area would produce approximately 8,585.5 lbs/day (4.3 tons/day) (702 * 12.23) of operational solid waste. The commercial square footage within the Program Study Area would produce approximately 1,170 lbs/day (0.58 tons/day) (90,000 sf/1,000 * 13 lbs) of operational solid waste. Overall, operational solid waste associated with the Program Study Area would total approximately 4.88 tons/day. Thus, total Project Buildout would result in approximately 6.3 tons/day. Considering that the Potrero Hills Landfill is permitted to accept a peak daily waste flow of 4,330 tons and is anticipated to continue operations until 2059, Project Buildout operational waste would represent only an incremental contribution to the waste received at the landfill, and a less-than-significant impact would occur.

Conclusion

Based on the above, the proposed 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.

The cumulative setting for impacts related to utilities encompasses buildout of the applicable service areas of utility providers discussed in this chapter. Additional detail regarding the cumulative project setting can be found in Chapter 5, Statutorily Required Sections, of this EIR.

4.13-5 Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout of the El Dorado County General Plan. Based on the analysis below, the cumulative impact is *less than significant*.

The following discussions provide an analysis of the proposed project's contribution to cumulative impacts associated with water supply, wastewater treatment, dry utilities, and solid waste within El Dorado County.

Water Supply

Unincorporated areas of El Dorado County are provided domestic water service by EID. As cumulative development within the County occurs, a corresponding increased demand for water supplies would result. However, as discussed under Impact 4.13-2, EID will maintain a supply of 78,300 AF of water though 2045, with a surplus of 34,980 AF during normal years, as well as a supply of 67,100 through 2045 with a surplus of 21,610 AF during a dry year. Thus, the estimated water demand associated with the proposed project (207 AFY) would be well below the anticipated supply, and future water demand generated by future development is not expected to exceed supplies in any year or hydrologic condition. Furthermore, in the event that future development projects are proposed, new water infrastructure required as part of such projects would be required to be designed and constructed in accordance with applicable requirements set forth by the EID Water, Sewer, and Recycled Water Design and Construction Standards. Compliance with the foregoing requirements and standards would ensure new water infrastructure installed as part of future development within El Dorado County is constructed in conformance with proper materials and sizing. Therefore, adequate water supply would be available to serve cumulative development within El Dorado County, in conjunction with the proposed project, and a less-than-significant impact would occur.

Wastewater Treatment

The proposed project would be required to pay Facility Capacity Charges (i.e., connection fees) to EID, which EID would use to fund Capital Improvement Plan (CIP) projects. One CIP project includes addressing certain segments of the Silva Valley and EDH trunk lines that are nearing capacity. The trunk lines have adequate capacity for the proposed project, but as future cumulative development occurs within the County, certain segments of the trunk lines would need to be upsized. The necessary upsizing improvements are part of EID's 2026 CIP, and the proposed project would pay its fair share towards upsizing by paying their Facility Capacity Charges. Therefore, adequate wastewater treatment capacity would be available to serve

cumulative development within El Dorado County through payment of Facility Capacity Charges, in conjunction with the proposed project, and a less-than-significant impact would occur.

Electricity, Gas, and Telecommunications Facilities

Environmental effects associated with the construction of new or expanded electricity and telecommunications facilities would primarily be project-specific, rather than cumulative. As noted under Impact 4.13-1 above, while the proposed project would include new connections to existing electrical and telecommunications infrastructure located in the project vicinity, substantial extension of existing off-site infrastructure would not be required. Therefore, the proposed project would result in a less-than-significant cumulative impact related to construction of new or expanded electricity, natural gas, and telecommunications facilities.

Solid Waste

As previously discussed, according to CalRecycle, the Potrero Hills Landfill is permitted to accept a peak daily waste flow of 4,330 tons and has estimated closure date of 2059. Construction waste generated by development facilitated by future development within El Dorado County would be required to comply with the applicable provisions of the CALGreen Code. The CALGreen Code requires at least 65 percent diversion of construction waste for projects permitted after January 1, 2017. In addition, recyclables collected and processed by EDD would be bundled and transported to recycling centers, further preserving remaining capacity at the Potrero Hills Landfill. Considering the remaining capacity at the landfill to serve future development, adequate capacity would be available to serve cumulative development within El Dorado County, in conjunction with the proposed project, and a less-than-significant impact would occur.

Conclusion

Based on the above, adequate water supply, electricity, natural gas, telecommunication facilities, and landfill capacity would be available to serve cumulative development in conjunction with the proposed project. In addition, development of the proposed project would not affect the capacity of other wastewater treatment service providers in El Dorado County to meet existing commitments. Therefore, a ***less-than-significant*** cumulative impact would occur.

Mitigation Measure(s)

None required.

4.14. WILDFIRE

4.14. WILDFIRE

4.14.1 INTRODUCTION

The Wildfire chapter of the EIR summarizes the existing wildfire setting and identifies the wildfire potential within the project area. The chapter describes the fire types that occur in the project region, wildland fire hazards associated with the project site, the fire history in the project region, and consideration of site-specific factors that may affect the wildfire potential at the project site. In addition, this chapter describes the established emergency evacuation procedures in the project vicinity and the proposed project's effect on such procedures in the case of a wildfire. The information contained in the analysis is primarily based on the Wildfire Evacuation Assessment (WEA) (see Appendix S)[1] prepared by T. Kear Transportation Planning and Management, Inc. (T. Kear). Further information was sourced from the El Dorado County General Plan and the El Dorado County General Plan EIR,[2,3] the Bass Lake Hills Specific Plan (BLHSP),[4] and the Bass Lake Road Study Area Program EIR (Bass Lake EIR).[5]

4.14.2 EXISTING ENVIRONMENTAL SETTING

The project site is located in El Dorado County, California, approximately 500 feet north of U.S. Highway 50 (US 50), east of Bass Lake Road. The approximately 60.5-acre site is identified by Assessor's Parcel Numbers (APNs) 119-080-12, -021 and -023. The project site is located in the southern central portion of the BLHSP; the northern portion of the project site is located within the Community Region of the El Dorado County General Plan, and the southern portion of the site is located within the Rural Region. As discussed in further detail in Chapter 3, Project Description, of this EIR, the project site would consist of two areas: the Project Development Area consists of the northernmost and southernmost 30.3 acres of the project site, and the Program Study Area consists of the central and easternmost 30.2 acres of the project site.

Country Club Drive crosses through the northern portion of the site and a dirt road is located in the western area of the site. With the exception of two wells located near the center of the site, the project site is otherwise undeveloped. The terrain of the project site generally slopes from the east down towards the west with elevations ranging from approximately 1,040 feet above mean sea level (amsl) to 1,220 feet amsl. On-site vegetation consists of seasonal grasses and scattered oak trees. In addition, rock outcroppings are located throughout the site. Seasonal wetlands and seeps have also been observed on-site, as well as drainage ditches that run along roadways in the site vicinity and an intermittent drainage north of Country Club Drive.

The landscape in the project vicinity is similar to that of the project site, consisting of rolling topography and grassy vegetation. Surrounding land uses include undeveloped land and rural residences within the BLHSP to the north; rural residences and a park-and-ride lot to the west, across Bass Lake Road; the El Dorado Hills Fire Department Station 86 to the northwest, also

1 T. Kear Transportation Planning and Management, Inc. *Wildfire Evacuation Assessment: Town and Country Village – El Dorado, Bass Lake Hills, California*. July 18, 2024.
2 El Dorado County. *2004 El Dorado County General Plan*. Adopted July 19, 2004.
3 El Dorado County. *El Dorado County General Plan Draft Environmental Impact Report*. May 2003.
4 El Dorado County. *Bass Lake Hills Specific Plan*. November 7, 1995.
5 El Dorado County. *Bass Lake Road Study Area Program Environmental Impact Report*. June 14, 1991.

across Bass Lake Road; undeveloped land and rural residences to the south, across US 50; and undeveloped land to the east, with a church located farther east.

The following section describes the existing wildfire setting in the project region, including fire types, large fire history, wildland fire hazards, fire agencies and resources in the project region, emergency vehicle access, existing emergency evacuation procedures, and public safety power shutoffs (PSPS).

Fire Types

The following sections describe the fire types to which various areas of El Dorado County are at risk of experiencing.

Wildfires

A wildfire is a nonstructural fire that occurs in vegetative fuels, excluding prescribed fire. Various factors contribute to the intensity and spread of wildfires: humidity, wind speed and direction, vegetation type, the amount of vegetation (i.e., fuel), and topography. While wildfires are a natural component of California's fire-adapted ecosystems, they represent a hazard where development is adjacent to open space or within close proximity to wildland fuels or designated fire severity zones. Wildfires can occur in undeveloped areas and spread to urban areas where the landscape and structures are not designed and maintained to be ignition-resistant. The impacts of wildfire on a community are far-reaching. The most significant impacts would be loss of life, loss of property, and environmental damage.

Wildfires are a significant threat in California, particularly in recent years as the landscape responds to climate change and decades of fire suppression. As climate change persists, it is anticipated to produce increasing temperatures and drier conditions that will generate abundant dry fuels. All wildfires (those initiated by both natural and manmade sources) tend to be larger under drier atmospheric conditions and when fed by drier fuel sources.

Wildfire behavior is a product of several variables, primarily weather, vegetation, topography, and human influences, which intermix to produce local and regional fire regimes that affect how, when, and where fires burn. The fire regime in any area is defined by several factors, including fire frequency, intensity, severity, and area burned. Fire frequency refers to the number of fires that occur in a given area over a given period of time; fire intensity refers to the speed at which fire travels and the heat that it produces; fire severity involves the extent to which ecosystems and existing conditions are affected or changed by a fire; and area burned is the size of the area burned by wildfire.

Where there is human access to wildland areas, such as the Sierra Nevada and foothills areas, the risk of fire increases due to a greater chance for human carelessness and historical fire management practices. Within El Dorado County, the area starting in the foothills just east of El Dorado Hills and extending east, as well as north and south to the County lines, is most vulnerable and prone to wildfire due to the climate, topography, and vegetation. Wildfires may occur in areas of El Dorado County, including the most populated areas of El Dorado Hills, Cameron Park/Shingle Springs, Placerville, Camino/Pollock Pines and South Lake Tahoe.

Wildland-Urban Interface Fires

The wildland-urban interface (WUI) zone is an area where buildings and infrastructure (e.g., cell towers, schools, water supply facilities) mix with areas of wildland vegetation susceptible to

ignition due to several factors, including topographical features, vegetation fuel types, local weather conditions, and prevailing winds. The interface is sometimes divided into the defense zone (areas near communities, usually about 0.25-mile thick) and threat zones (an approximately 1.25-mile buffer around the defense zone). The WUI for El Dorado County consists of communities at risk as well as the area around the communities that pose a fire threat.

Two types of WUI environments exist. The first is the true urban interface where development abruptly meets wildland. The second WUI environment is referred to as the wildland urban intermix, which includes communities that are rural and low density where homes are intermixed in wildland areas. Wildland urban intermix communities are difficult to defend because they are sprawling communities over a large geographical area with wild fuels throughout. Such conditions make access, structure protection, and fire control difficult as fire can freely run through the community. The project site is not located within a WUI zone.

Structural Fires

Urban fires occur in developed environments, destroying buildings and other humanmade structures. Structural fires are often caused by faulty wiring or mechanical equipment or combustible construction materials, and are able to proliferate due to the absence of fire alarms and sprinkler systems. The fires have been due largely to human accidents, although deliberate fires (arson) may be a cause of some events. Older buildings that lack modern fire safety features may face greater risk of damage from fires. To minimize fire damage and loss, Chapter 8.09, Vegetation Management and Defensible Space, of the El Dorado County Code, which is intended to supplement the California Fire Code (CFC), requires the maintenance of defensible spaces and hazardous vegetation management, among other things.

Large Fire History

According to the California Department of Forestry and Fire Protection (CAL FIRE) fire incident database, 13 larger wildfires, defined as timber fires 10 acres or greater, brush fires 30 acres and greater, and grass fires 300 acres or greater, have occurred or spread within El Dorado County since 2020. The larger wildfires that have occurred within the County are summarized in Table 4.14-1.

Table 4.14-1
Large Fires Within El Dorado County Since 2020

Fire Name	Year	Acres Affected
Mosquito	2022	76,788 (including Placer County)
Cable	2022	20
Caldor	2021	221,835 (including Alpine and Amador Counties)
Steins	2021	11
Equestrian	2021	10
Settlers	2021	45
Salmon	2021	32
Cameron	2020	15
Fork	2020	Information Unavailable
Murphy	2020	14
Sophia	2020	36
Brandon	2020	32
Cronan	2020	29

Source: CAL FIRE.* Incidents. *Available at: https://www.fire.ca.gov/Incidents. Accessed June 2024.

In addition to the fires listed above, three wildfire events have occurred within one mile of the project site since 1997: Hickock Fire (1997, 776 acres); Ethel Fire (2001, 10 acres); and Hickock Fire (2002, 294 acres).

Wildland Fire Hazards

The following section includes a discussion of the potential for wildland fires to occur in the project area and the agencies and resources available for wildland fire suppression.

Wildfire Classifications

With respect to wildland fires, previous significant wildland fires within the State have precipitated the passage of statutes necessitating the classification of wildland fire hazard areas, according to a location's potential for causing ignitions to buildings. Such classifications are referred to as Fire Hazard Severity Zones (FHSZs) and provide the basis for application of various mitigation strategies to reduce risks to buildings associated with wildland fires.

Pursuant to Government Code Section 51178, Very High FHSZs are determined by the Director of Forestry and Fire Protection based on consistent statewide criteria and the severity of fire hazard that is expected to prevail in such areas. Very high FHSZs are based on fuel loading, slope, fire weather, and other relevant factors, including areas where Santa Ana, Mono, and Diablo winds have been identified by the CAL FIRE as a major cause of wildfire spread. Public Resources Code (PRC) Sections 4201 through 4204 direct CAL FIRE to map fire hazards within State Responsibility Areas (SRAs), based on relevant factors such as fuels, terrain, and weather. SRAs are recognized by the Board of Forestry and Fire Protection as areas where the CAL FIRE is the primary emergency response agency responsible for fire suppression and prevention.

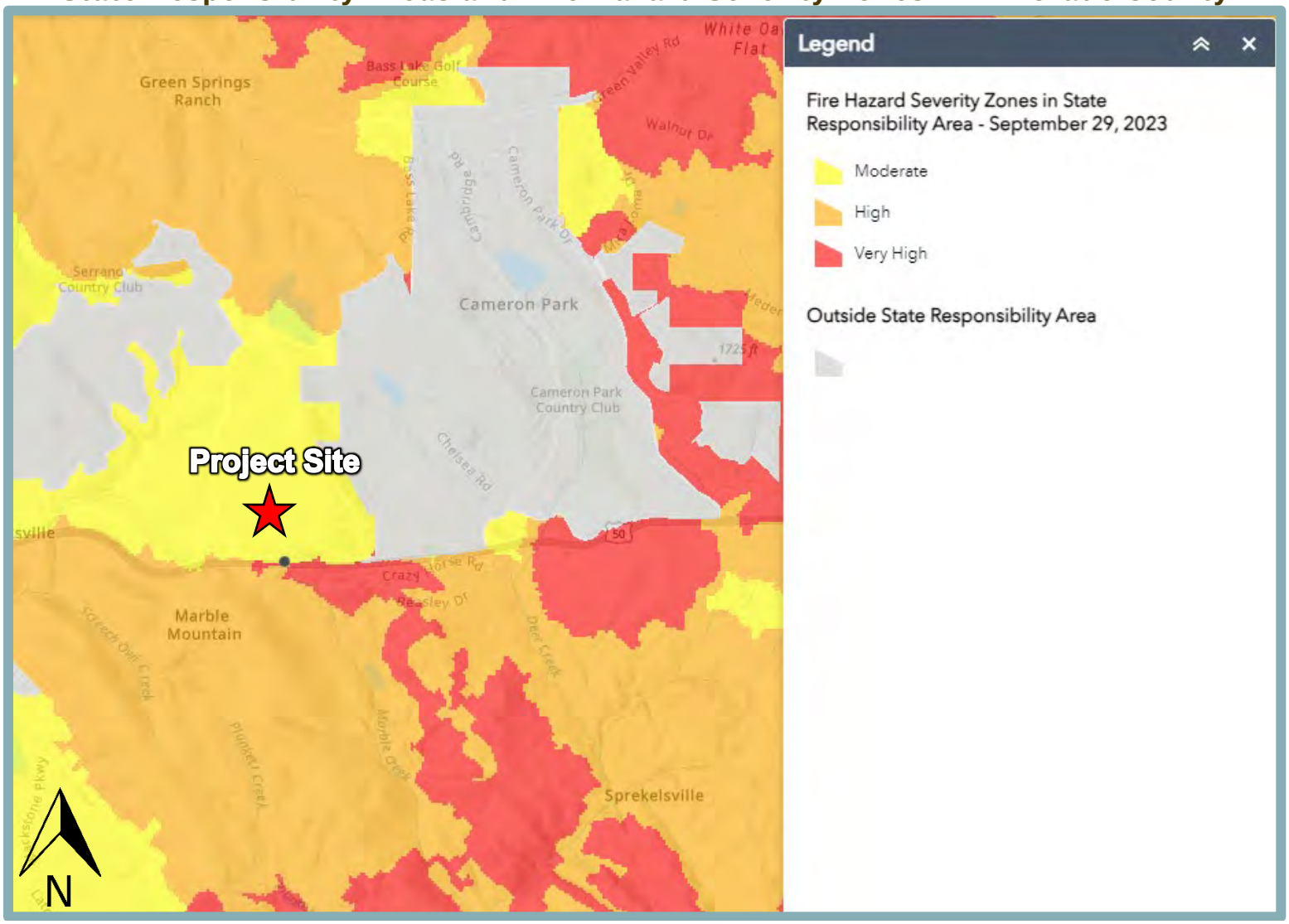
The project site is located within a SRA. Therefore, CAL FIRE is the primary emergency response agency responsible for fire suppression and prevention. As shown in Figure 4.14-1, the project site is identified as being within a Moderate FHSZ area. It is noted that the site is bordered by High and Very High FHSZ areas immediately to the south.

Topography and Vegetation

Topography, which includes slope and aspect, can play a significant role in wildfire risk. Fires burn faster uphill than downhill, due to fuels above a fire being brought into closer contact with upward moving flames. In addition, the process of heat transfer is influenced by topography, because heat rises (convection) and heat transfer through convection tends to move upward. Furthermore, during wildfires, burning materials on the forest floor also create convection currents that preheat the leaves and branches of shrubs and trees above the fire. Heat transfer, therefore, occurs more rapidly through fuels up a slope, resulting in fire traveling more quickly upslope than downslope. In addition, vegetation on south-facing slopes in the Northern Hemisphere receives greater heating and drying by solar radiation from early morning to sunset. North-facing slopes only receive varying amounts of solar radiation depending on season and latitude.

Types of terrain that can result in intense fire behavior include chimneys, chutes, and saddles. A chimney is defined as a narrow side canyon that tilts up toward a ridge line, a chute is defined as a collection of fairly narrow and straight depressions that lead up to a ridgeline, and a saddle is defined as a depression or pass in a ridgeline.

Figure 4.14-1
State Responsibility Areas and Fire Hazard Severity Zones in El Dorado County



Source: California Department of Forestry and Fire Resources, Fire Hazard Severity Zone Viewer, 2024.

El Dorado County is characterized by a wide range of elevations and varied terrain, diverse substrate material, large tracts of contiguous natural habitat, and a broad range of climatic conditions. Coniferous forest is dominant at higher elevations in the eastern half of the County; oak and hardwood habitats are found mostly in the central region; and annual grassland, chaparral, agriculture, and urban development is found primarily in the western third of the County.

The BLHSP area consists of approximately 1,196 acres located within the generally underdeveloped eastern portion of El Dorado County. The BLHSP area generally consists of rolling hills with oak woodlands, wetlands, and intermittent streams and drainages.

As discussed above, the approximately 60.5-acre project site generally slopes downhill from east to west and consists primarily of gently rolling grassy hills. The elevation at the project site ranges between approximately 1,040 and 1,220 feet amsl. Surrounding land uses include undeveloped land and rural residences within the BLHSP to the north; rural residences and a park-and-ride lot to the west, across Bass Lake Road; the El Dorado Hills Fire Department (EDHFD) Station #86 to the northwest, also across Bass Lake Road; undeveloped land and rural residences to the south, across US 50; and undeveloped land to the east, with the Holy Trinity Parish and School located farther east. It should be noted that in recent years, multiple Tentative Subdivision Maps have been approved for properties within the BLHSP, north of the project site, which are undergoing development.

Climate

Weather patterns in the project area are generally characterized by hot, dry summers of a Mediterranean-like climate and cool, wet winters. Temperatures in the project region fluctuate from average highs in July of 91 degrees Fahrenheit, with average lows in December of 41 degrees Fahrenheit.[6] Nearly all precipitation occurs between October and April in the form of rainfall, with February typically the wettest month, averaging 5.1 inches.

Prevailing Winds

The predominant wind direction at the project site is from the south throughout the year.[7] Southerly winds are most dominant from late January to December. The southerly direction of prevailing winds suggests that, during the majority of the year, winds would generally facilitate the spread of fire towards the north of the project site.

Fire Agencies and Resources

Multiple fire agencies provide fire protection services within the project area, including both wildland fire and structural fire response. The EDHFD, which has a Cooperative Fire Protection Agreement with CAL FIRE, provides wildland fire suppression at the project site. Both CAL FIRE and EDHFD are discussed below.

California Department of Forestry and Fire Protection

Wildland fire protection is provided either by the State (through CAL FIRE) or the federal government (through the U.S. Forest Service). The State has direct protection responsibility for all State and private wildlands (or forest lands) in designated areas, and provides support and

[6] Weather Spark. *Climate and Average Weather Year Round in Cameron Park*. Available at: https://weatherspark.com/y/1341/Average-Weather-in-Cameron-Park-California-United-States-Year-Round. Accessed March 2024.

[7] *Ibid*.

assistance to local jurisdictions in other areas of the State. CAL FIRE provides support and assistance to EDHFD for wildland fire response at the project site and strives to meet the National Fire Protection Association (NFPA) 1710 guideline for fire department response time of five minutes 90 percent of the time.

The nearest CAL FIRE station to the project site is Station #43, located at 5660 Mother Lode Drive, approximately 10 miles east of the project site. Station #43 is a full-time staffed station. In addition to legal responsibility for wildland fires in SRAs, where the project site is located, CAL FIRE has mutual and/or automatic aid agreements, and, thus, may assist local fire agencies with structural fires and medical incidents under the closest resource concept.

El Dorado Hills Fire Department

The EDHFD currently provides services to their approximately 30,000-acre service area, which contains approximately 13,215 homes, eight schools, and approximately four million square feet (sf) of commercial development.[8] EDHFD currently operates five stations and has a total of 83 personnel, including 65 firefighters, as well as paramedics, chief officers, fire prevention specialists, training officers, fleet maintenance personnel and administrative staff.

According to the EDHFD's Strategic Plan 2017-2022, the EDHFD provides fire suppression, prevention, and investigation services, emergency medical services (EMS), special and technical rescue, hazardous materials mitigation, public education, disaster preparedness, and support to nearly 112 square miles, which encompass the communities of El Dorado Hills, Rescue, and Latrobe.[9] The EDHFD participates in joint dispatching with other fire agencies in El Dorado County. As such, within the County, the closest uncommitted unit responds to an emergency call regardless of jurisdiction. Furthermore, EDHFD participates in the Master Mutual Aid System for the State of California, which provides staff and mechanical assistance throughout the State.

The nearest fire station to the project site is the Bass Lake Station (Station #86), located at 3670 Bass Lake Road, approximately 0.4-mile northwest of the project site. The site was purchased by the EDHFD in 1999, and the station opened in March 2001. Station #86 is staffed with three personnel and equipped with an advanced life support engine.

Emergency Evacuation Procedures

El Dorado County does not currently have an adopted emergency evacuation plan. However, in the event of a disaster or large-scale incident, the El Dorado County Sheriff's Office of Emergency Services (OES) coordinates the overall response through the Emergency Operations Center (EOC). The County OES is to alert and notify appropriate partner agencies and the public once aware of any threat to the Operational Area. When activated, the EOC provides a central location for responding and supporting agencies to collaborate response and recovery efforts, allowing for effective and efficient information dissemination and resource deployment. In non-disaster times, the El Dorado County OES supports and coordinates disaster planning, community preparedness, mitigation, and training.

The El Dorado County Sheriff or his or her designee has the authority to order evacuations and/or shelter-in-place across the County, pursuant to California Penal Code Section 409.5. Operational

[8] El Dorado Hills Fire Department. *Department History.* Available at: https://www.edhfire.com/about-us/2013-03-27-00-10-22/history. Accessed April 2024.
[9] El Dorado Hills Fire Department. *EDHFD Strategic Plan 2017-2022.* Adopted April 18, 2013. Updated June 15, 2017.

procedures for major evacuations are detailed in the El Dorado County Emergency Operations Plan (EOP). It is the responsibility of the County Sheriff, who serves as the Director of Emergency Services, to implement the procedures through the County EOC. The procedures define the circumstances under which evacuations in the County may be necessary, as well as the roles and responsibilities of local response agencies. In general, any event that requires widespread evacuations including the project area would be managed on a situation-by-situation basis depending on the nature of the emergency and its dynamic development.

Public Safety Power Shutoffs

In an effort to prevent fires, the electrical services provider for El Dorado County, PG&E, initiated PSPS in 2019, which may continue in subsequent years until fire risks associated with power lines are decreased. PSPS events involve PG&E turning off electrical service during times when the weather is predicted to have a heightened fire risk from gusty winds and dry conditions. Dependent on the fire risks, the power outage events may occur in specific areas or for all PG&E customers across the County.

The California Public Utilities Commission (CPUC) adopted the High Fire-Threat District Map in 2018, which serves to assist in the public's protection from potential fire hazards associated with overhead powerline facilities and nearby aerial communication facilities by delineating fire-threat areas in the State.[10] Fire-threat areas are designated as Tier 1, 2, or 3, with Tier 1 defined as a High Hazard Zone, Tier 2 as an Elevated Hazard Zone, and Tier 3 as an Extreme Hazard Zone.

The project site is located within a Tier 2 zone, which is an area subject to an elevated risk from wildfires associated with overhead utility powerline facilities, including those that support communication facilities (see Figure 4.14-2). Overhead utility powerline facilities cross through the southernmost portion of the project site, parallel to Old Country Club Drive. Based on the project site's location within a Tier 2 zone, the site could be subject to PSPS events.[11]

Throughout PSPS events, emergency services in El Dorado County remain functional with back-up power supplies, but many businesses and agencies are not operational, which can result in inadequate access to medical services and exposure to excessive heat or cold.

4.14.3 REGULATORY CONTEXT

The following sections provide a summary of the federal, State and local regulations pertaining to wildfire that are applicable to the proposed project.

Federal Regulations

The following are the federal environmental laws relevant to wildfire.

Healthy Forest Reforestation Act

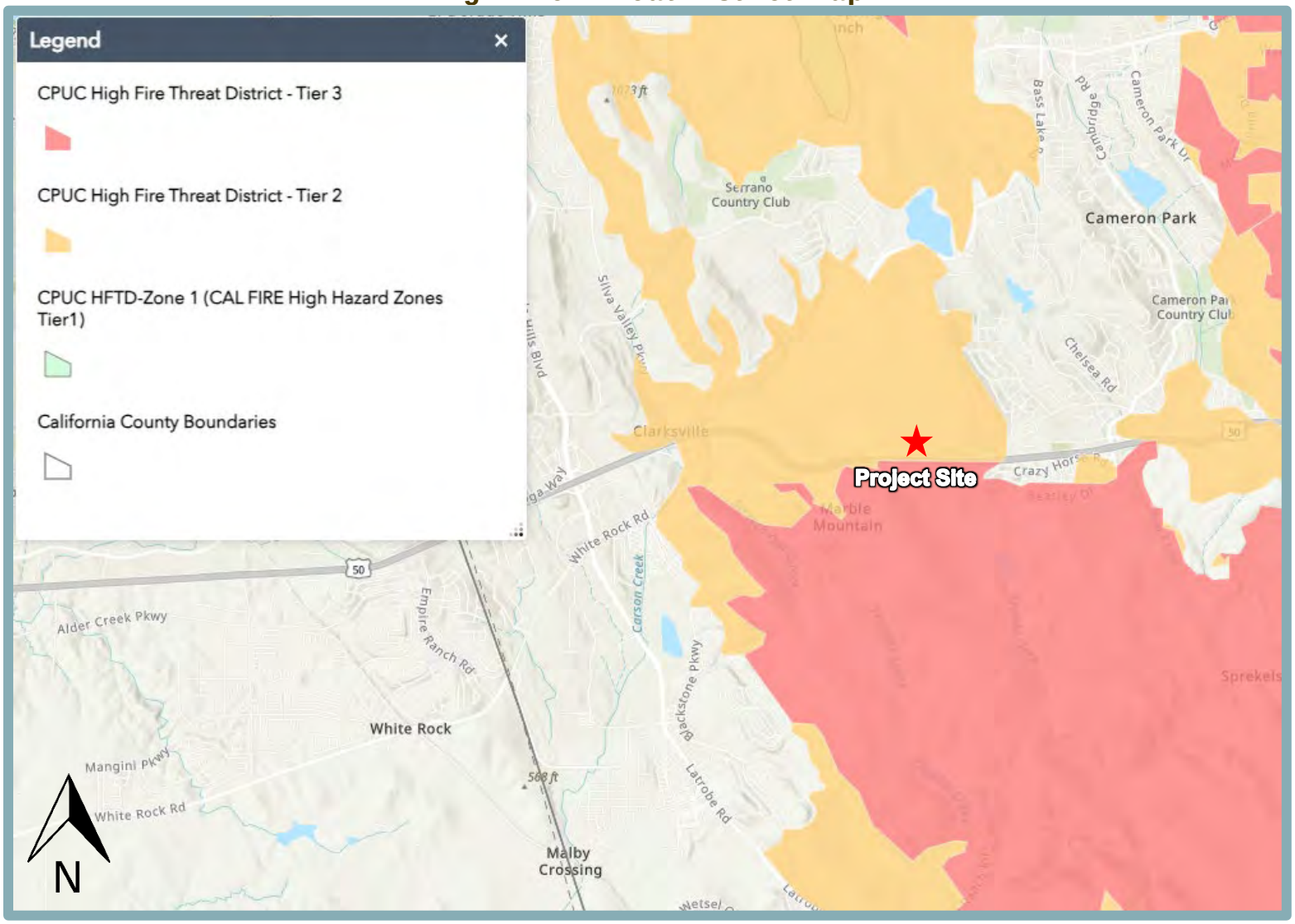
In recognition of widespread declining forest health, the Healthy Forest Restoration Act (HFRA) was passed in 2003 to expedite the development and implementation of hazardous fuel reduction projects on federal land.

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10 California Public Utilities Commission. *Fire-Threat Maps and Fire-Safety Regulations Proceedings*. Available at: https://www.cpuc.ca.gov/industries-and-topics/wildfires/fire-threat-maps-and-fire-safety-rulemaking. Accessed June 2024.

11 Pacific Gas & Electric Co. *Determining When to Turn Off Power For Safety: Decision-Making for Public Safety Power Shutoffs.* Available at: https://www.pge.com/assets/pge/docs/outages-and-safety/outage-preparedness-and-support/safety-outage-decision-making-guide.pdf. Accessed June 2024.

Figure 4.14-2
High Fire-Threat District Map



Source: California Public Utilities Commission, CPUC High Fire Threat District (HFTD) Map, 2024.

A key component of the HFRA is the development of Community Wildfire Protection Plans (CWPP) as a mechanism for public input and prioritization of fuel reduction projects. A CWPP provides background information about a project area, discussion of community values at risk, community base maps, a fire risk assessment, and recommendations that identify treatment areas for reducing fuels and promoting education and awareness about wildland fires, as well as monitoring and assessment strategies. The El Dorado County CWPP provides a comprehensive analysis of wildfire-related hazards and risks in the WUI areas within the County and includes recommendations to assist stakeholders in preventing and/or reducing the threat of wildfires.[12]

State Regulations

The following are the State environmental laws and policies relevant to wildfire.

State Responsibility Area

Pursuant to PRC Sections 4125-4128, the Board of Forestry and Fire Protection classifies all lands in the State for the purposes of determining areas in which the financial responsibility of preventing and suppressing wildfire is primarily the responsibility of the State. The classified lands are termed SRA.

Fire Hazard Severity Zones

FHSZs are geographical areas designated pursuant to California PRC Sections 4201 through 4204 and classified as Very High, High, or Moderate in SRAs or as Local Agency Very High FHSZs designated pursuant to California Government Code Sections 51175 through 51189.

The California Code of Regulations (CCR), Title 14, Section 1280 entitles the maps of the geographical areas as “Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California.”

California Public Resources Code Sections 4920 and 4291

California PRC Section 4920 sets forth minimum fire safety standards related to defensible space for development within SRAs and Very High FHSZs, including related to the following:

- Road standards for fire equipment access;
- Standards for signs identifying streets, roads, and buildings;
- Minimum private water supply reserves for emergency fire use; and
- Fuel breaks and greenbelts.

California PRC Section 4291 sets forth minimum fire safety standards for development in or adjoining WUI zones, such as mountainous areas and forest-covered lands. Provisions of California PRC Section 4291 for such development include, but are not necessarily limited to, the following:

- Defensible space must be maintained 100 feet from the side, front and rear of a structure, or up to the property line where the property line is less than 100 feet from the structure;
- Any tree, shrub, or other plant adjacent to or overhanging a building must be free of dead or dying wood;
- The roof of any structure must be free of leaves, needles, or other vegetative materials;

[12] El Dorado County. *Western El Dorado County Community Wildfire Protection Plan*. February 15, 2022.

- Prior to constructing a new building, the owner shall obtain a certification from the local building official that the dwelling or structure, as proposed to be built, complies with all applicable State and local building standards; and
- Prior to final inspection approval of any building, the fire department must inspect the building and the fire suppression facilities to certify that the fire suppression improvements comply with the California Building Code and fire department service requirements.

Minimum Fire Safe Regulations

The State Minimum Fire Safe Regulations are set forth in CCR, Title 14, Section 1270, and constitute the minimum wildfire protection standards of the California Board of Forestry and Fire Protection related to development within SRAs and Very High FHSZs. The wildfire protection standards contained in the State Minimum Fire Safe Regulations include, but are not limited to, regulations pertaining to the provision of basic emergency access; perimeter wildfire protection measures; signing and building numbering; private water supply reserves for emergency fire use; vegetation modification; fuel breaks; greenbelts; and the provision of undeveloped ridgelines.

California Building Code – Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure)

Chapter 7A of the California Building Code (CBC) (Title 24 CCR, Part 2) includes definitions and standards for building materials, systems, and/or assemblies to be used for the exterior design and construction of new buildings located within a WUI zone, which is defined by the CBC as a geographical area identified by the State as a "Fire Hazard Severity Zone" in accordance with the PRC Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires.

Chapter 7A of the CBC is intended to establish minimum standards for the protection of life and property by increasing the ability of a building located in any FHSZ within SRAs or any WUI zone to resist the intrusion of flames or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses. All new buildings to be located in a FHSZ or WUI zone designated by the enforcing agency for which an application for a building permit is submitted on or after July 1, 2008 are required to comply with Chapter 7A of the CBC. Examples of the Chapter 7A standards include, but are not limited to, use of ignition-resistant materials, fire-intrusion design of roofing and vents, and use of glazed exterior windows and doors.

The project site is not in a WUI zone; therefore, the standards set forth by CBC Chapter 7A related to development in such areas would not apply to the proposed project.

Local Regulations

The following local goals and policies related to wildfire are applicable to the proposed project.

El Dorado County General Plan

The following policies from the El Dorado County General Plan are applicable to the proposed project:

Public Services and Utilities Element

Goal 5.7 EMERGENCY SERVICES

Adequate and comprehensive emergency services, including fire protection, law enforcement, and emergency medical services.

Objective 5.7.1 FIRE PROTECTION (COMMUNITY REGIONS): Ensure sufficient emergency water supply, storage, and conveyance facilities are available, and that adequate access is provided for, concurrent with development.

Policy 5.7.1.1 Prior to approval of new development, the applicant will be required to demonstrate that adequate emergency water supply, storage, conveyance facilities, and access for fire protection either are or will be provided concurrent with development.

Objective 5.7.2 FIRE PROTECTION (RURAL REGIONS AND RURAL CENTERS): Sufficient emergency water supply, storage, and conveyance facilities for fire protection, together with adequate access are available, or are provided for, concurrent with development.

Policy 5.7.2.1 Prior to approval of new development, the responsible fire protection district shall be requested to review all applications to determine the ability of the district to provide protection services. The ability to provide fire protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

Public Health, Safety, and Noise Element

Goal 6.1 COORDINATION

A coordinated approach to hazard and disaster response planning.

Objective 6.1.1 IMPLEMENT THE EL DORADO COUNTY MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN: The El Dorado County Multi-Jurisdictional Hazard Mitigation Plan shall serve as the implementation program for this Goal.

Policy 6.1.1.1 The El Dorado County MJHMP shall serve as the implementation program for the coordination of hazard planning and disaster response efforts within the County and is incorporated by reference to this Element. The County will ensure that the MJHMP is updated to keep pace with the growing population.

Objective 6.1.2 Expand community resilience to support effective emergency response and recovery during and after emergency events.

Policy 6.1.2.1 Support an emergency mass evacuation and sheltering plan that prioritizes the needs of at-risk, vulnerable, and disadvantaged people and individuals with disabilities, access and functional needs, and other special needs by providing meaningful opportunities in emergency planning efforts.

Goal 6.2 FIRE HAZARDS

Minimize fire hazards and risks in both wildland and developed areas.

Objective 6.2.1 DEFENSIBLE SPACE: All existing and new development and structures shall meet “defensible space” requirements to minimize wildland fire hazards.

Policy 6.2.1.1 Implement Fire Safe ordinance to attain and maintain defensible space through conditioning of tentative maps and in new development at the final map and/or building permit stage.

Policy 6.2.1.2 Coordinate with the local Fire Safe Councils, California Department of Forestry and Fire Protection, and federal and state agencies having land use jurisdiction in El Dorado County in the development of a countywide fuels management strategy.

Policy 6.2.1.3 Require all existing and new residential development in State Responsibility Areas (SRAs) and/or very high Fire Hazard Severity Zones (VHFHSZs) to enforce fire-resistant landscaping and defensible space requirements that meet or exceed Title 14, Code of California Regulations (CCR), Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 (commencing with Section 1270) (State Minimum Fire Safe regulations) and Subchapter 3, Article 3 (commencing with Section 1299.01) (Fire Hazard Reduction around Buildings and Structures Regulations). Adequate compliance with these requirements shall be determined by the local Fire Protection Districts (FPDs) or other local fire agencies, as appropriate.

Policy 6.2.1.4 Require consistency with fire code and development standards that ensure adequate defensible space clearance around all existing and new structures in compliance with the California Fire Code, Public Resources Code Section 4291 (ember-resistant zone), Government Code Section 51175-51188, CCR Title 14, Division 1.5, Chapter 7, Subchapter 3, Section 1299.03, and in the County Code of Ordinances Chapter 8.09.

Policy 6.2.1.5 Maintain and enforce the County Defensible Space Ordinance and Fire Prevention Programs and Plans in coordination with local the VHFHSZs and other fire agencies and continue to support related fire prevention programs associated with defensible space inspections as detailed in County Code of Ordinances Chapter 8.09, fire development standards, and public education.

Objective 6.2.2 LIMITATIONS TO DEVELOPMENT: Regulate development in areas of high and very high fire hazard as designated by the California Department of Forestry and Fire Protection Fire Hazard Severity Zone Maps (FHSZ).

Policy 6.2.2.1 FHSZ Maps shall be consulted in the review of all projects so that standards and mitigation measures appropriate to each hazard classification can be applied. Land use densities and intensities shall be determined by mitigation measures in areas designated as high or very high fire hazard.

Policy 6.2.2.2 The County shall preclude development, including public facilities and essential services (see definition in the Background Information Report in Appendix B) in areas of high and very high wildland fire hazard or in areas identified as wildland-urban interface (WUI) communities within the vicinity of Federal lands that are a high risk for wildfire, as listed in the Federal Register Executive Order 13728 of May 18, 2016, unless such development can be adequately protected from wildland fire hazard, as demonstrated in a WUI Fire Safe Plan prepared by a qualified professional as approved by the El Dorado

County Fire Prevention Officers Association. The WUI Fire Safe Plan shall be approved by the local FPD having jurisdiction and/or CAL FIRE. (Resolution 124- 2019, August 6, 2019)

Policy 6.2.2.3 In the event of a major fire (defined as greater than 500 acres), the County shall evaluate redevelopment within the impacted fire areas to comply with current Fire Safe Regulations and related County standards. All development shall meet or exceed the County's Building Code, and conform to the State Fire Safe Regulations through application of the Fire Code and wildfire development standards pertaining to fuel modification and defensible space, Public Resources Code 4290, and Title 14 California Code of Regulations 1270-1276.04 referenced on the County's Building Services webpage, in addition to any applicable updates required at the state level, except where alternative building codes apply pursuant to County ordinance.

Objective 6.2.3 ADEQUATE FIRE PROTECTION: Application of uniform fire protection standards to development projects by fire district.

Policy 6.2.3.1 As a requirement for approving new development, the County must find, based on information provided by the applicant and the responsible FPD that, concurrent with development, adequate emergency and peak load water supply, water flow, fire access, and fire fighting personnel and equipment will be available in accordance with applicable State and local fire district standards to support fire suppression efforts.

Policy 6.2.3.2 As a requirement of new development, the applicant must demonstrate that adequate access exists, or can be provided to ensure that emergency vehicles can access the site and private vehicles can evacuate the area.

Policy 6.2.3.4 All new development and public works projects shall be consistent with applicable State Wildland Fire Standards and other relevant State and federal fire requirements.

Policy 6.2.3.5 Identify actions to ensure noncompliant development meets current fire safe standards and road standards as defined in Title 14 CCR, Division 1.5, Chapter 7 Fire Protection, Subchapter 2, Articles 1-5, SRA Fire Safe Regulations through the WUI Fire Safe Plan review process and through collaboration with the FPDs and local fire agencies when reviewing Fire Protection Plans and provisions for new development.

Policy 6.2.3.6 All new development within an SRA or very high (VHFHSZs) shall prepare a Fire Protection Plan that complies with established fire safety standards. Ingress and egress to the new development will be constructed utilizing the most current State Fire Safe Regulations, Fire Code, and/or County Code that meets these minimum requirements. Key components of a Fire Protection Plan include:

1. risk analysis;
2. fire response capabilities;
3. fire safety requirements – defensible space, infrastructure, and building ignition resistance;
4. mitigation measures and design considerations for non-conforming fuel modification;
5. wildfire education, maintenance, and limitations; and
6. evacuation planning.

Existing development within an SRA or VHFHSZ can meet these requirements through retro-fitting and home hardening.

Policy 6.2.3.7 Enforce the most recent California Uniform Building Code Fire Code to safeguard life and property from the hazards of fires and explosions; dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; and hazardous conditions in the use or occupancy of building or premises.

Objective 6.2.4 AREA-WIDE FUEL MANAGEMENT PROGRAM: Reduce fire hazard through cooperative fuel management activities.

Policy 6.2.4.1 Discretionary development within high and very high fire hazard areas shall be conditioned to designate fuel break zones that comply with fire safe requirements to benefit the new and, where possible, existing development.

Policy 6.2.4.2 The County shall cooperate with CAL FIRE and local FPDs districts to identify opportunities for fuel breaks in zones of high and very high fire hazard either prior to or as a component of project review. and will support the FPDs in tacking grants to fund fire breaks and their long-term maintenance.

Policy 6.2.4.3 Require fuel modification around homes and subdivision developments in SRAs or VHFHSZs by assisting the local FPDs and other local fire agencies.

Objective 6.2.5 FIRE PROTECTION EDUCATION: Inform and educate homeowners regarding fire safety and prevention.

Policy 6.2.5.1 The County shall cooperate with the U.S. Forest Service, CAL FIRE, local FPDs, and other local fire agencies in fire prevention education programs.

Goal 6.11 EVACUATION ROUTES: Identify and maintain adequate evacuation routes in the incorporated and unincorporated County.

Objective 6.11.2 EVACUATION ROUTE MAINTENANCE: Ensure viability of future use of evacuation routes.

Policy 6.11.2.1 Development shall be served by a street system with at least two evacuation routes capable of carrying peak load traffic and have sufficient capacity to meet project needs, or they must provide the necessary capacity to ensure the development has adequate fire protection and safe ingress and egress routes in conformance with the California Fire Safe Regulations (Section 1273 and 1274) of the California Code of Regulations – Title 14, Division 1.5, Chapter 7, Articles 2 and 3).

Policy 6.11.2.2 Construction of new roads, streets, and evacuation routes must be adequate in terms of width, turning radius, and grade to

facilitate access by firefighting apparatus. Priorities for road improvements will be based on evacuation accessibility.

El Dorado County Code

Chapter 8.08, Fire Prevention, of the El Dorado County Code specifies limits on campfires, fireworks, smoking, and incinerators for all discretionary and ministerial developments. Chapter 8.09, Vegetation Management and Defensible Space, of Title 8 of the County Code requires the removal or abatement of all hazardous vegetation and describes the means of enforcement.

El Dorado County Local Hazard Mitigation Plan

The El Dorado County Local Hazard Mitigation Plan (LHMP) provides guidance for the County's response to emergency situations, including earthquakes, levee failures, flood events, wildfire, and severe weather events. The LHMP was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 so that the County would be eligible for the Federal Emergency Management Agency's (FEMA's) Pre-Disaster Mitigation and Hazard Mitigation Grant programs. The County followed a planning process prescribed by FEMA, which began with the formation of a hazard mitigation planning committee (HMPC) comprised of key County representatives, and other regional stakeholders. The HMPC conducted a risk assessment that identified and profiled hazards that pose a risk to the County, assessed the County's vulnerability to these hazards, and examined the capabilities in place to mitigate them. The County is vulnerable to several hazards that are identified, profiles, and analyzed in the LHMP, including wildfires. Based on the risk assessment, the HMPC identified the following goals for reducing the County's vulnerability to hazards:

- Goal 1: Minimize risk and vulnerability of El Dorado County to the impacts of natural hazards and protect lives and reduce damages and losses to property, economy, public health and safety, and the environment.
- Goal 2: Provide protection for critical facilities, infrastructure, utilities and services form hazard impacts.
- Goal 3: Improve public awareness, education, and preparedness for all hazards.
- Goal 4: Increase communities' capabilities to mitigate losses and to be prepared for, respond to, and recover from a disaster event.
- Goal 5**:** Maintain FEMA Eligibility/Position the communities for grant funding.

El Dorado County Department of Forestry State Responsibility Area Fire Safe Regulations

The El Dorado County Department of Forestry State Responsibility Area Fire Safe Regulations have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction and development in SRAs. The future design and construction of structures, subdivisions, and developments in the SRAs must provide for basic emergency access and perimeter wildfire protection measures. Required measures include provisions for emergency access; signing and building numbering; private water supply reserves for emergency fire use; and vegetation modification.

El Dorado County Fire Safe Council

The El Dorado County Fire Safe Council was organized in September 2001 and currently has over 150 members from the public and private sectors. Through community outreach and public education, the Council endeavors to make residents of the County aware of the risks of living

within a WUI and what they should do to protect their home and property from wildfire. The Council and its partners have implemented many fire safe projects in the County, including the chipper program, defensible space inspections, and vegetation reduction projects.

Western El Dorado County Community Wildfire Protection Plan

The Western El Dorado County Community Wildfire Protection Plan (ECCWPP) identifies the risks and hazards associated with wildland fires in the WUI areas of Western El Dorado County. The ECCWPP also identifies recommendations aimed at preventing and reducing both infrastructure and ecosystem damage associated with wildland fires. Fuel reduction projects identified in the approved ECCWPP receive priority for federal funds. The ECCWPP was last updated in 2022.

El Dorado County Emergency Operations Plan

The El Dorado County EOP serves as the official emergency plan for El Dorado County.[13] It includes planned operational functions and the overall responsibilities of County departments during an emergency situation. The EOP is designed to focus on potential large-scale disasters, rather than daily emergencies that are regularly handled by local law enforcement and protection agencies. The EOP defines the County's planned response to "extraordinary" emergency situations associated with natural disasters, technological incidents, and acts of war and terrorism. The County Sheriff, as the Director of Emergency Services, has activation authority of the EOP. The EOP contains a threat summary for El Dorado County and includes an analysis of natural, technological, and human-caused disasters.

El Dorado Hills Fire Department

Ordinance 2022-01

The EDHFD has adopted the 2022 CFC with several local amendments which are more restrictive than those described in the CFC. The EDHFD updates its local fire code ordinance in conjunction with the triennial update to the California Building Standards Code. Specific local amendments contained within the ordinance that are applicable to the project include the following:

- Fire apparatus access road design criteria as described in Section 503.2.1
- Dead end roads and driveways as described in Section 503.2.5
- Fire lane marking requirements described in Section 503.3.1
- Security gate design criteria as described in Section 503.6
- Address identification criteria as described in Section 505.1
- Liquid propane gas storage tank limits as described in Section 6104.2
- Residential fire sprinkler system installation requirements found in Chapter 80
- Fire-flow requirements for buildings as described in Appendix B
- Fire apparatus access road design criteria described in Appendix D

Ordinance 2023-01

Ordinance 2023-01 regulates hazardous vegetation management on unimproved parcels. Specific provisions contained within the ordinance include the following:

- Hazardous vegetation maintenance on unimproved parcels that are one (1.0) acre in size or smaller

[13] El Dorado County. *El Dorado County Emergency Operations Plan*. Available at: https://indd.adobe.com/view/149886e7-cb2b-4939-b58d-f697e0e4eda1. Accessed June 2024.

- Hazardous vegetation maintenance on unimproved parcels over one-acre (1.01) in size or larger
- Unimproved parcels known to contain, or that the property owner believes, may contain habitat for rare, threatened, or endangered plant or animal species
- Duty of property owner to abate fire hazards on their property
- Acceptable methods of clearance of hazardous vegetation and combustible materials
- Reoccurring fire hazards
- Penalties for violating the ordinance

4.14.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to wildfire. 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 wildfire is considered significant if the proposed project is located in or near SRAs or lands classified as Very High FHSZs and would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Method of Analysis

The impact analysis contained in this chapter related to wildfire risks is based on various online databases. For example, FHSZ information was taken from the CAL FIRE Fire Hazard Severity Zone Viewer, climate and prevailing winds information is drawn from weatherspark.com, and the information on existing on- and off-site vegetation is based on Google Earth aerial imagery. In addition, information about the on-site topography is based on a Slope Map prepared for the proposed project by Youngdahl Consulting Group, Inc.

The impact analysis contained in this chapter related to evacuation impacts is based on information in the WEA prepared for the proposed project by T. Kear (see Appendix S). T. Kear coordinated with CAL FIRE and the EDHFD to determine the appropriate inputs and assumptions for the analysis within the WEA, as well as to determine the fire scenarios evaluated. The WEA addresses both cumulative and "super-cumulative" scenarios, with and without the proposed project. The cumulative scenario reflects all approved projects and anticipated General Plan buildout;[14] the super-cumulative scenario includes cumulative conditions as well as additional growth to account for proposed General Plan changes related to the EDH 52 Project and the

[14] Cumulative 2040 General Plan buildout based on the El Dorado County Travel Demand Model.

Village of Marble Valley Specific Plan Project (VMVSP) and the Lime Rock Valley Specific Plan Project (LRVSP).[15]

Fire Modeling

Robust modeling has been conducted for the proposed VMVSPand LRVSPprojects located south of the project site as part of the EIR analysis for those projects. In conducting the Wildland Fire Evacuation Risk Reports for the VMVSP[16] and LRVSP[17] projects, the consultant coordinated closely with EDHFD, CAL FIRE, and OES. Thus, given the close proximity of these two projects to the project site, and the vetting of the VMVSP and LRVSP fire modelling with the applicable fire and emergency services providers, the WEA for the proposed project utilized these recent fire modelling efforts as its base. Based on input from EDHFD and CAL FIRE, fire scenarios 7E and 7H from the VMVSPand LRVSP fire evacuation assessments were selected as the fire scenarios for evaluation of the proposed project. Both wildfire scenarios 7E and 7H assume a fire start near Bullard Drive, west of Amber Fields Drive, with 65 mile per hour (mph) south-south-east winds and an evacuation starting at 7:00 AM. Scenario 7E does not include the proposed VMVSP and LRVSP developments, whereas, scenario 7H assumes full buildout of the VMVSP and LRVSP projects.

As shown in Figure 4.14-3, scenario 7E anticipates that the fire would reach the project site within 120 minutes. Portions of the Bell Ranch neighborhood located north of the Holy Trinity Catholic Parish, northeast of the project site, are anticipated to be reached by the fire in 60 minutes. As shown in Figure 4.14-4, under scenario 7H, the VMVSP and LRVSP projects are anticipated to slow fire progression, such that the fire would not cross US 50 until 240 minutes.

Evacuation Assessment

The following presents the WEA's analysis of the evacuation area, evacuation routes, evacuation window, and affected population associated with evacuation in the case of a wildfire in the project vicinity, as well as the methodology in the analysis.

Evacuation Area

The evacuation area for the project-specific analysis includes a "north of US 50 evacuation zone" that stretches east from Silva Valley Parkway to Cambridge Road, and north from US 50 to a line defined by Serrano Parkway, Bass Lake Road, and Clemson Drive/Hillcrest Drive (see Figure 4.14-5). Additionally, a "south of US-50 evacuation zone" was assumed based on the Village of Marble Valley Specific Plan Fire Evacuation Assessment (see Figure 4.14-6).

As shown in Figure 4.14-5, evacuation routes have been identified for the project site, for the broader off-site evacuation zone, and for the evacuation corridors. Generally, evacuees would take local roads (represented as the evacuation routes in the travel demand model) to evacuation corridors along the periphery of the evacuation zone. Evacuation corridor gateways (labeled as A through F in Figure 4.14-5) represent the points at which evacuees are considered to be safe.

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15 Cumulative 2040 General Plan buildout based on the El Dorado County TDM as well as the proposed Marble Valley, Lime Rock, and EDH 52 (Costco) projects. This is considered the "Super Cumulative" scenario in the Local Transportation Analysis prepared for the Town & Country Village El Dorado project.

16 Firesafe Planning Solutions. *Village of Marble Valley Project – Wildland Fire Evacuation Risk Report*. September 19, 2023.

17 Firesafe Planning Solutions. *Lime Rock Project – Wildland Fire Evacuation Risk Report*. November 1, 2023.

Figure 4.14-3
Wildfire Scenario 7E Fire Progression Map

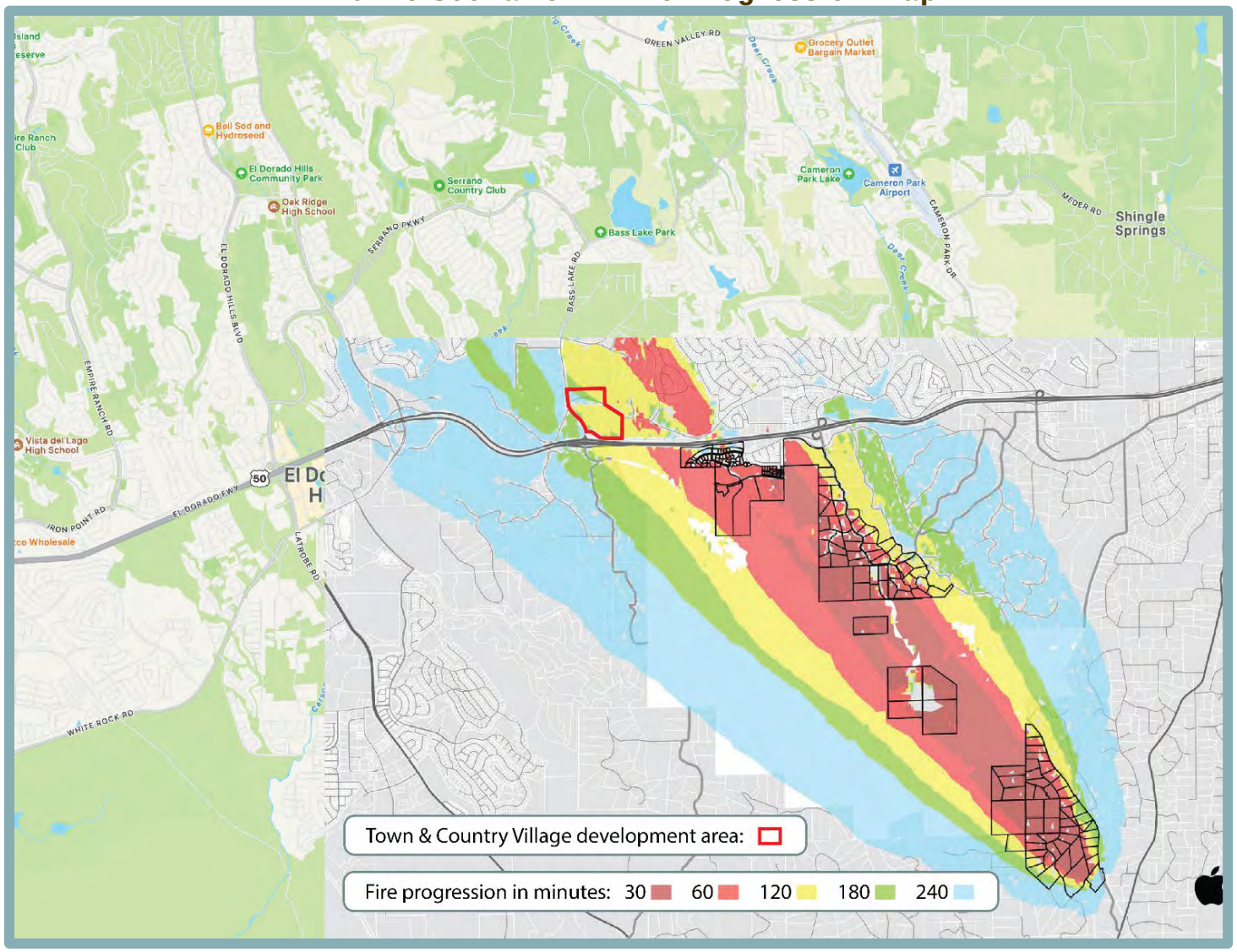


Figure 4.14-4
Wildfire Scenario 7H Fire Progression Map

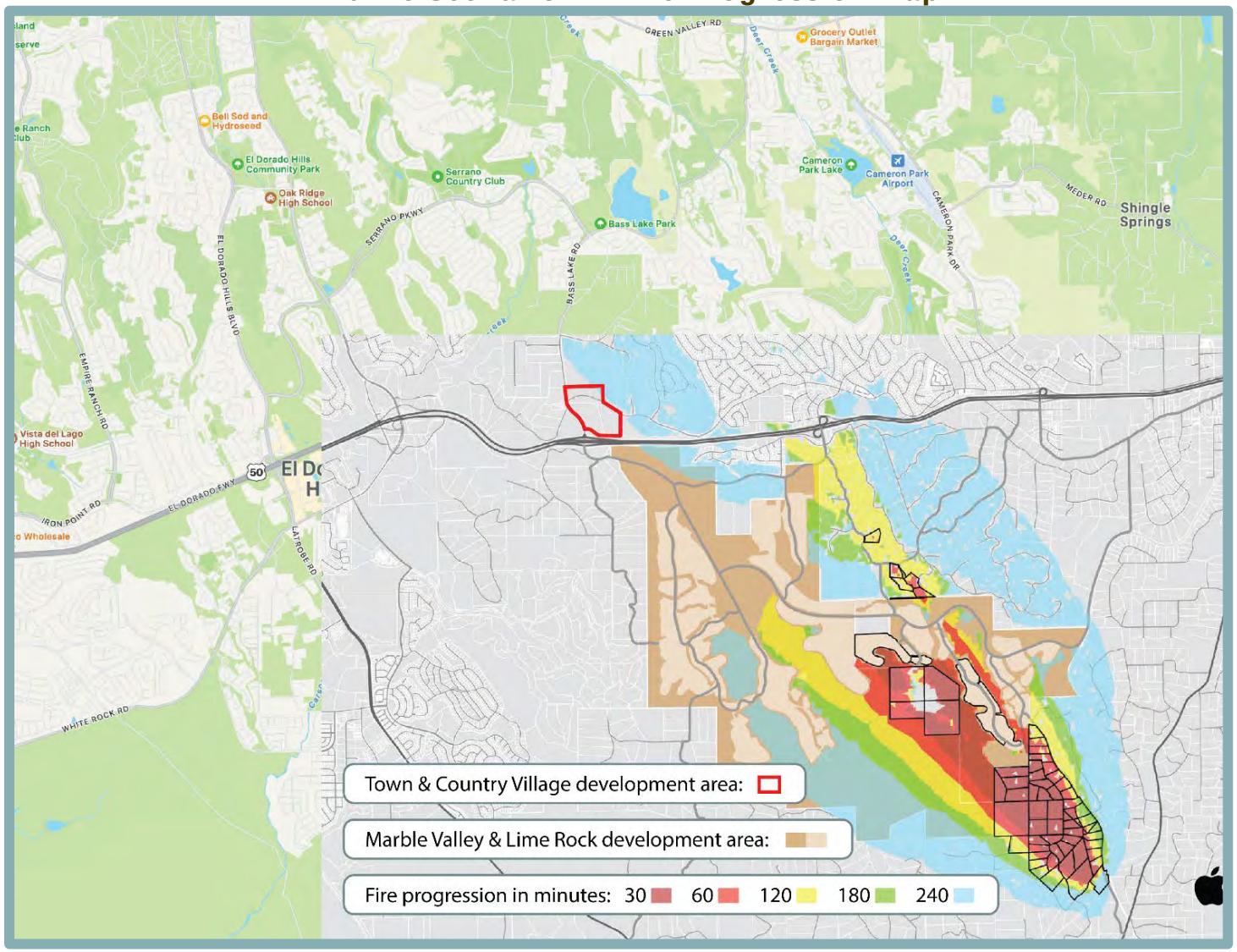


Figure 4.14-5
North of US 50 Evacuation Zone

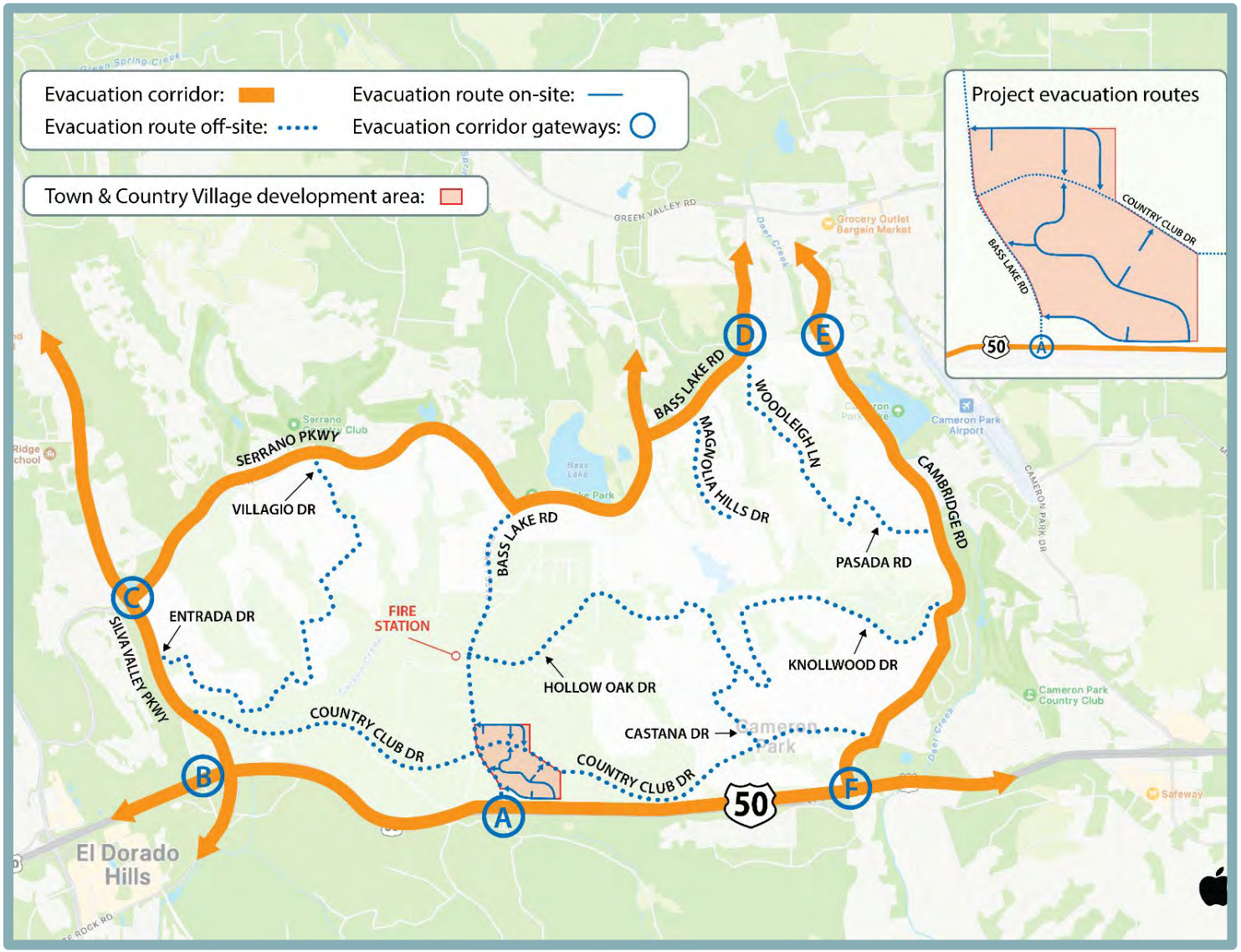
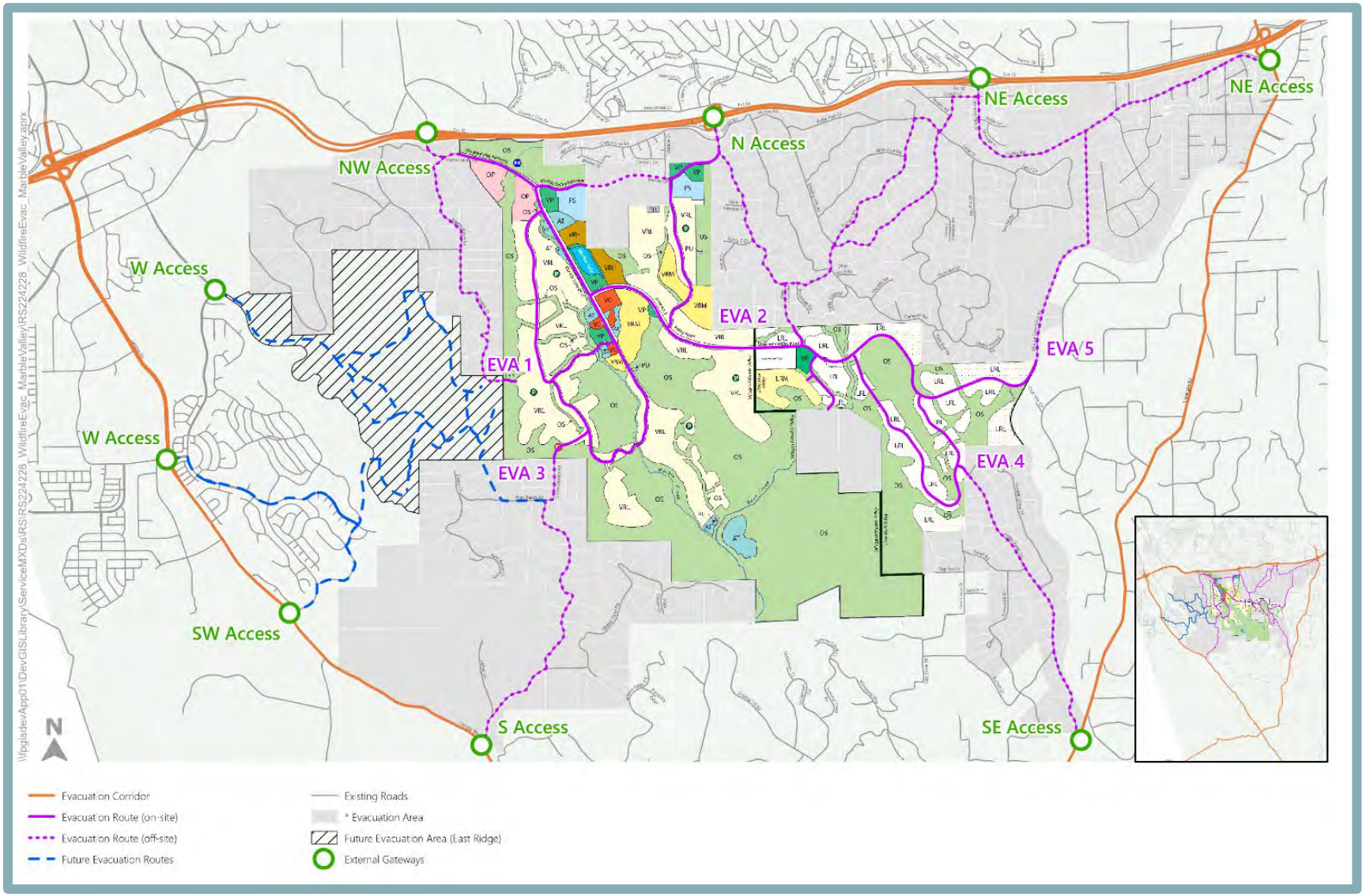


Figure 4.14-6
South of US 50 Evacuation Zone



Evacuation routes include the following:

- Local connecting roads from Entrada Drive to Villaggio Drive (within Serrano);
- Bass Lake Road from US 50 to Serrano Parkway;
- Country Club Drive from Bass Lake Road to Cambridge Road;
- Country Club Drive from Silva Valley Parkway to Cambridge Road;
- Hollow Oak Drive/Castana Drive/Knollwood Drive;
- Magnolia Drive; and
- Woodleigh Lane to Pasada Road.

The evacuation corridors, which are arterial roadways surrounding the north of the US 50 evacuation zone, include:

- US 50;
- Silva Valley Parkway;
- Serrano Parkway from Silva Valley Parkway to Bass Lake Road;
- Bass Lake Road from Silva Valley Parkway to north of Woodleigh Lane; and
- Cambridge Road from US 50 to north of Hillcrest Drive.

The evacuation routes lead to evacuation corridor gateways which were selected conservatively to represent points at which evacuees would be considered safe.

Evacuation Window

The evacuation time window is the time between when the order is received to evacuate for ordered evacuations, or the decision to evacuate is made for self-evacuation, and the time when evacuees reach safety. Self-evacuation occurs when a fire is likely to reach an area in under 60 minutes and fire authorities are not yet able to assist with evacuation. The WEA assumed that the entirety of the evacuation area is ordered and/or is self-evacuating concurrently. Consistent with the fire scenarios described above, evacuation is assumed to begin at 7:00 AM.

T. Kear assumed a three-hour evacuation window based on guidance from the EDHFD and the related work done for the Village of Marble Valley Specific Plan Fire Evacuation Assessment.[18] Modeling assumed a one-hour peak-period assignment, consistent with the assumption that under cumulative conditions the fire could reach north of US 50 within 60 minutes.

Affected Population and Trip Demand

The effected population and resulting travel demand were estimated based on household, population, and employment data from the El Dorado County Travel Demand Model. Evacuation time estimates from the south of US 50 zone were provided by the Village of Marble Valley Specific Plan Fire Evacuation Assessment. However, T. Kear determined that some of the evacuation traffic south of US 50 could utilize evacuation routes and corridors north of US 50. Therefore, the south of US 50 evacuation zone evacuation demand was modeled to capture its effect on the north of US 50 evacuation zone.

The evacuation zone population data, including both cumulative and super-cumulative conditions with and without the proposed project, is presented in Table 4.14-2 below, with the north of US

[18] Fehr & Peers. *Village of Marble Valley Specific Plan Fire Evacuation Assessment*. September 28, 2023.

50 and south of US 50 regions broken out. Table 4.14-2 references the travel demand model Transportation Analysis Zones (TAZs) that represent the evacuation areas. TAZs are neighborhood size regions for which land use is tabulated and trip productions and attractions can be computed. All model trips begin and end at a TAZ.

T. Kear converted the data presented in Table 4.14-2 to evacuation demand estimates based on US census and household travel survey data indicating an average of two vehicles per household throughout both evacuation zones. With an estimated evacuation start time of 7:00 AM, it is assumed that all residents are still at home and require evacuation, generating two outbound vehicle trips per household. Two vehicles were estimated for each household. Additionally, it was assumed that all employees working within the evacuation zone would already be on the job at 7:00 AM and would generate one outbound vehicle trip per employee. Inbound trip demand to the evacuation zones (for non-emergency vehicles) was assumed to be zero. Outbound commercial vehicle trips were taken from the El Dorado County Travel Demand Model.

Table 4.14-2
Evacuation Zone Population Data

Scenario	2040 Population	2040 Employment	2040 Students	2040 Households
North of US 50 Evacuation Zone (TAZ 161-163, 179, 180, 182, 184, 221, 229, 230, 235, 624, 631-636)				
Cumulative without Project	17,410	875	2,483	6,294
Cumulative with Project	19,546	1,200	2,483	7,052
Super-Cumulative without Project	18,117	1,214	2,483	6,598
Super-Cumulative with Project	20,252	1,539	2,483	7,356
South of US 50 Evacuation Zone (TAZ 154, 180, 183 626, 629, 630)				
Cumulative without Project	2,472	114	0	1,010
Cumulative with Project	2,472	114	0	1,010
Super-Cumulative without Project	14,462	1,564	1,393	5,036
Super-Cumulative with Project	14,462	1,564	1,393	5,036
Combined Evacuation Zone				
Cumulative without Project	19,883	989	2,483	7,303
Cumulative with Project	22,018	1,314	2,483	8,061
Super-Cumulative without Project	32,579	2,778	3,876	11,633
Super-Cumulative with Project	34,715	3,103	3,876	12,391

Source: T. Kear Transportation Planning and Management, Inc., July 2024.

The resulting travel demand is shown in Table 4.14-3. For comparison, the regular travel demand from the affected areas in the El Dorado Travel Demand Model for the 60-minute AM peak-period is shown in Table 4.14-4.

Evacuation Assessment Methodology

Evacuation modeling was carried out in the El Dorado County Travel Demand Model, with the AM peak-hour origin and destination matrices adjusted using a “FRATAR” process to account for the evacuation demand from effected TAZs, summarized in Table 4.14-3.

Table 4.14-3
One-Hour AM Peak-Period Vehicle Trips Under Evacuation Conditions

Scenario	Outbound Passenger Vehicle Trips	Inbound Passenger Vehicle Trips	Outbound Commercial Vehicle Trips	Inbound Commercial Vehicle Trips
North of US-50 Evacuation Zone (TAZ 161-163, 179, 180, 182, 184, 221, 229, 230, 235, 624, 631-636)				
Cumulative without Project	12,546	0	175	0
Cumulative with Project	14,148	0	203	0
Super-Cumulative without Project	12,051	0	199	0
Super-Cumulative with Project	13,609	0	227	0
South of US-50 Evacuation Zone (TAZ 154, 180, 183 626, 629, 630)				
Cumulative without Project	1,988	0	24	0
Cumulative with Project	1,972	0	24	0
Super-Cumulative without Project	10,458	0	175	0
Super-Cumulative with Project	10,385	0	175	0
Combined Evacuation Zone				
Cumulative without Project	14,534	0	199	0
Cumulative with Project	16,120	0	227	0
Super-Cumulative without Project	22,509	0	374	0
Super-Cumulative with Project	23,994	0	402	0

Source: T. Kear Transportation Planning and Management, Inc., July 2024.

Table 4.14-4
One-Hour AM Peak-Period Vehicle Trips Under Normal Conditions

Scenario	Outbound Passenger Vehicle Trips	Inbound Passenger Vehicle Trips	Outbound Commercial Vehicle Trips	Inbound Commercial Vehicle Trips
North of US-50 Evacuation Zone (TAZ 161-163, 179, 180, 182, 184, 221, 229, 230, 235, 624, 631-636)				
Cumulative without Project	3,590	2,152	179	179
Cumulative with Project	4,029	2,469	208	208
Super-Cumulative without Project	3,852	2,448	204	204
Super-Cumulative with Project	4,294	2,768	234	234
South of US-50 Evacuation Zone (TAZ 154, 180, 183 626, 629, 630)				
Cumulative without Project	461	242	25	25
Cumulative with Project	461	242	25	25
Super-Cumulative without Project	2,934	1,858	179	179
Super-Cumulative with Project	2,931	1,854	179	179
Combined Evacuation Zone				
Cumulative without Project	4,050	2,394	204	204
Cumulative with Project	4,490	2,711	234	234
Super-Cumulative without Project	6,786	4,306	384	384
Super-Cumulative with Project	7,225	4,622	413	413

Source: T. Kear Transportation Planning and Management, Inc., July 2024.

T. Kear assumed that road closure to through traffic would not occur, so some non-evacuation traffic was assumed to pass through the evacuation zone increasing congestion and travel time. It is noted that eliminating non-emergency inbound traffic to the evacuation zones greatly reduces inbound traffic on key roadways such as Bass Lake Road and Country Club Drive. Travel through the evacuation zones is therefore allowed. For example, traffic evacuating the south of US 50 evacuation zone is able to pass through the north of US 50 evacuation zone. Travel times were then estimated from "skims" of the loaded network that report travel time between all TAZs.

While evacuation periods of up to 180 minutes can be accepted (depending upon how quickly the fire progresses), a one-hour AM assignment was used, as evacuation times under one hour will ensure that the affected population can evacuate prior to the wildfire crossing US 50.

T. Kear enhanced the El Dorado County Travel Demand Model network to incorporate roadways and zones reflecting the super-cumulative projects (VMVSP, LRVSP, and EDH 52), the proposed project, and to reflect key evacuation routes.

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 identified above.

4.14-1 Substantially impair an adopted emergency response plan or emergency evacuation plan. Based on the analysis below, the impact is *less than significant*.

As described above, the evacuation analysis performed for the proposed project focuses on buildout of both the Project Development Area and Program Study Area within the cumulative setting. As a result, the following discussion applies to the potential for both components to substantially impair an adopted emergency response plan or emergency evacuation plan.

Project Development Area and Project Buildout

Emergency events, such as wildland fires, are unpredictable. The location of the fire, the time of day an event occurs, the direction of travel, and the rate of spread are unknown. Due to such uncertainty, the use of traditional capacity analysis, such as AM and PM peak hour operations at study intersections, is limited for the analysis of emergency events. Furthermore, while El Dorado County has an adopted LHMP and EOP, which are both intended to provide emergency resources and plans in response to local hazards, such as wildfires, the County does not have an adopted emergency evacuation plan.

As discussed above and shown in Figure 4.14-3, in wildfire scenario 7E, the fire would reach the project site within 120 minutes. As shown in Figure 4.14-4, under wildfire scenario 7H, the VMVSP and LRVSP projects would slow fire progression such that the fire would not cross US 50 to the project site until an estimated 240 minutes had passed.

Using the methodology described in the Method of Analysis section above and further presented in Appendix S to this Draft EIR, T. Kear calculated maximum outbound and inbound evacuation travel times under evacuation conditions between any point within

the north of US 50 evacuation zone and any of the evacuation corridor gateways. Table 4.14-5 and Table 4.14-6 present the minimum and maximum outbound and inbound travel times, respectively, between each evacuation corridor gateway and any point within the north of US 50 evacuation zone.

As shown in Table 4.14-5 and Table 4.14-6, access to and from evacuation corridors located adjacent to an evacuating neighborhood is anticipated to be as little as one to two minutes, while access to and from the furthest spaced evacuation corridor gateways and neighborhoods is anticipated to be about 24 to 30 minutes. As previously mentioned, these results are based on the cumulative scenario, which reflects both reasonably foreseeable growth and planned roadway improvements associated with such growth. To ensure that existing conditions could adequately be evacuated, the cumulative evacuation traffic without VMVSP and LRVSP growth was assigned to the existing roadway network (e.g., existing cross-section of Bass Lake Road, no extension of Country Club Drive to Silva Valley Parkway).

Travel times to the closest evacuation corridor gateway were estimated to be in the 31- to 36-minute range.

Based on the above, under both cumulative and super-cumulative conditions, buildout of the proposed project would result in a maximum increase in outbound evacuation travel time of approximately 1.3 minutes; project buildout would result in a maximum increase in inbound emergency vehicle travel time of approximately 0.7 minutes.

During wildfire events, emergency responders would be able to access the project site to combat fires, which would serve to reduce the hazardous conditions that precipitate the need for evacuation of patrons and employees. Primary access to the proposed cottages would be provided from Country Club Drive, with two emergency access connections as follows: one connection to Bass Lake Road, north of its intersection with Country Club Drive, and one connection to Country Club Drive toward the eastern end of the cottage parcel. The Project Development Area improvements would include construction of an emergency access road from Old Country Club Drive, approximately 685 feet east of the intersection of Bass Lake Road and Old Country Club Drive. A future emergency access road would be constructed further east and connected to Old Country Club Drive should the Program Study Area be developed at a later date. Accordingly, the proposed project would provide adequate emergency access to the project site and would not be expected to conflict with any potential evacuation routes. Emergency vehicles would be expected to come primarily from Station #86, located at 3670 Bass Lake Road. Given that Station #86 is located approximately 0.4-mile northwest of the project site, emergency vehicles would be able to arrive on-site within a timely manner.

Based on the above, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

None required.

Table 4.14-5
Outbound Evacuation Travel Times

Evacuation Corridor Gateway	Cumulative Without Project (Minutes)		Cumulative With Project (Minutes)		Super-Cumulative Without Project (Minutes)		Super-Cumulative With Project (Minutes)	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
A (Bass Lake Road/US 50 westbound)	5.3	22.0	6.4	20.8	3.2	17.8	3.8	18.4
B (Silva Valley Parkway/US 50 westbound)	2.7	30.2	2.7	30.0	2.7	28.4	2.7	28.7
C (Silva Valley Parkway/Serrano Parkway)	1.7	28.9	1.7	30.2	1.7	28.0	1.7	27.9
D (Bass Lake Road north of Woodleigh Lane)	2.6	15.1	2.6	15.0	2.6	15.2	2.6	15.4
E (Cambridge Road north of Hillcrest Drive)	5.9	19.6	5.9	19.5	5.4	18.8	5.4	18.9
F (Cambridge Road/US 50 westbound)	1.3	25.4	1.3	24.2	1.3	21.6	1.3	22.3

Source: T. Kear Transportation Planning and Management, Inc., July 2024.

Table 4.14-6
Inbound Travel Time for Emergency Vehicles

Evacuation Corridor Gateway	Cumulative Without Project (Minutes)		Cumulative With Project (Minutes)		Super-Cumulative Without Project (Minutes)		Super-Cumulative With Project (Minutes)	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
A (Bass Lake Road/US 50 westbound)	1.5	14.8	1.6	15.5	2.1	17.6	2.0	17.4
B (Silva Valley Parkway/US 50 westbound)	1.2	10.5	1.2	10.5	1.2	10.8	1.2	10.8
C (Silva Valley Parkway/Serrano Parkway)	1.8	13.2	1.8	13.4	1.8	11.7	1.8	12.2
D (Bass Lake Road north of Woodleigh Lane)	2.6	27.4	2.6	27.3	2.6	24.9	2.6	24.8
E (Cambridge Road north of Hillcrest Drive)	4.9	23.5	4.9	23.7	4.9	21.3	4.9	21.1
F (Cambridge Road/US 50 westbound)	1.3	13.8	1.3	14.3	1.3	20.1	1.3	19.8

Source: T. Kear Transportation Planning and Management, Inc., July 2024.

4.14-2 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. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.

Country Club Drive crosses through the northern portion of the site and a dirt road is located in the western area of the site. With the exception of two wells located near the center of the site, the project site is otherwise undeveloped. On-site vegetation consists of seasonal grasses and scattered oak trees. In addition, rock outcroppings are located throughout the site. Seasonal wetlands and seeps have also been observed on-site, as well as an intermittent drainage north of Country Club Drive. As discussed above, the project site is located within a Moderate FHSZ.

As described in Chapter 3, Project Description, of this EIR, the proposed project could include the construction of an approximately 10,510-linear-foot BLHSP sewer main connecting the project site to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Road, approximately 1.6 miles to the west. Two potential sewer line alignments are proposed, both of which would partially align with existing roadways before crossing through undeveloped areas consisting of grassy vegetation.

Development of the Project Development Area and Program Study Area would result in the construction of similar land uses on contiguous parcels. Thus, the following discussions evaluate the potential impacts associated with both components of the proposed project related to the exacerbation of wildfire risks due to factors such as on-site fuel sources, slope, and prevailing winds.

Project Development Area and Project Buildout

Wildfire risks due to on-site fuel sources, slope, and prevailing winds and discussed below.

Wildfire Risks Due to Existing On-Site Fuel Sources

CEQA Guidelines Appendix G indicates that the extent and nature of on-site vegetation, which would serve as fuel for a wildfire, should be evaluated to determine the potential for a project to exacerbate wildfire risk. The project site is generally undeveloped and consists of seasonal grasses, scattered oak trees, seasonal wetlands, drainage ditches, and an intermittent drainage. The landscape in the project vicinity is similar to that of the project site, consisting of rolling topography and grassy vegetation. Buildout of the Project Development Area of the project site with residential and commercial uses would reduce the risk of wildland fire to surrounding areas, because site improvements, such as roadways, driveways, and landscaping, would reduce readily combustible vegetation. A similar effect is demonstrated by reviewing Figure 4.14-4, which shows how the proposed VMVSP and LRVSP projects would essentially serve as a fire break, if developed south of US 50. Additionally, wildfire risks would not be anticipated to be exacerbated during project operation, as the proposed residential and hotel uses typically do not involve operational components that would increase the risk of wildfire.

More specifically, the proposed project would reduce on-site fuel sources through the development of two hotels, retail services, two restaurants, a museum, an event center, associated parking, and 112 residential cottages within the 30.3-acre Project Development Area. The majority of the existing vegetation within the Project Development Area would be removed. The proposed project would be required to comply with all applicable State and local standards and regulations associated with prevention of wildfire hazards, including EDHFD Ordinance 2022-01, which serves to adopt and amend, as applicable, the CFC. The CFC requires that an automatic fire sprinkler and/or fire extinguishing system be installed throughout new one- and two-family dwellings and commercial buildings 3,600 sf and larger. In addition, although the project site is not within a WUI or Very High or High FHSZ, County Code Section 8.09.707(F) sets forth hazardous vegetation abatement standards for improved parcels with which the proposed project would be required to comply. Overall, both State and local requirements would significantly assist in reducing the threat of a wildfire spreading from undeveloped land to the proposed structures, as well as the potential of fire spreading from the site to surrounding areas.

In compliance with Chapter 130.33, Landscaping Standards, of the El Dorado County Code, a landscaping plan has been prepared for the Project Development Area as part of the proposed Planned Development application. As shown in Figure 4.1-14 of the Aesthetics chapter of this EIR, the proposed project would include the planting of 3,670 sf of turf, 545,830 sf of shrubs, and 9,530 sf of trees. Trees proposed to be planted on-site would include a significant amount of 24-inch box sized trees, as well as many 36-inch and 48-inch box sized trees. Consistent with El Dorado County and BLHSP requirements, on-site landscaping would consist of drought-tolerant plants and trees and would incorporate landscaping along local roadways. Installation of the proposed landscaping would introduce new fuel sources to the project site. However, as set forth in Section 130.33.010 of the County Code, the landscaping would include irrigation scheduling in accordance with the State's Model Water Efficient Landscape Ordinance, which would ensure the proposed vegetation is sufficiently watered to not result in excessively dry fuel sources.

As discussed in Chapter 3, Project Description, of this EIR, the 30.2-acre Program Study Area of the project site is not currently proposed for development. Future development of the Program Study Area is anticipated to consist of uses such as hotels, senior housing units, medical facilities, townhomes, retail shops, cottages, and other uses allowed by the zoning district. Until such time that the Program Study Area is developed, vegetation will persist throughout the Program Study Area that would serve as a fuel source. Without appropriate maintenance of the fuel sources within the Program Study Area, the potential exists for the project to exacerbate the risk of wildfire spreading to adjacent areas.

In addition, during project construction, equipment without appropriate spark arrestors could result in direct flame impingement on combustible materials, such as existing on-site vegetation or building construction supplies. Should the off-site sewer alternative be selected, equipment without appropriate spark arrestors used during construction of the off-site sewer main could also result in direct flame impingement on off-site vegetation. As such, without proper measures to require that construction activities be equipped with CAL FIRE-approved spark arrestors, project construction could result in the ignition of on- and off-site fuel sources.

Overall, development of the proposed project could exacerbate wildfire risks due to on-site vegetation and building construction supplies, thereby exposing residents in the project vicinity to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, and a significant impact could occur.

Wildfire Risks Due to Slope

The BLHSP area contains limited areas of steep slopes, generally associated with road cuts for Bass Lake Road and Country Club Drive. The terrain of the project site generally slopes from the east down towards the west with elevations ranging from approximately 1,040 feet amsl to 1,220 feet amsl. Although some steep slopes occur within the Program Study Area, such slopes are limited in size and are not sufficient to facilitate rapid spread of wildfire, as compared to slopes in mountainous areas, which are sufficiently large enough to accommodate rapid spread of wildfire.

Based on the existing topography of the project site, slope would not affect on-site fire behavior, as compared to the mountainous areas associated with the Sierra Nevada in the County's eastern region. Therefore, the proposed project would not exacerbate wildfire risks due to slope, and a less-than-significant impact would occur.

Wildfire Risks Due to Prevailing Winds

With respect to prevailing winds at the project site, as previously discussed, winds from the south are most dominant from late January through December. The predominant direction of prevailing winds suggests that, during the majority of the year, winds could be reasonably assumed to facilitate spread of fire towards the north of the site. Although winds could facilitate the spread of wildfire toward the project site from the High and Very High FHSZs to the south, as discussed above, the majority of on-site fuel sources within the Project Development Area of the site would be removed as part of development of the proposed project. The Project Development Area includes the majority of the southern portion of the project site. Future development of the Program Study Area would further reduce wildfire risk due to prevailing winds. As such, removal of the vegetation therein would ensure the proposed project does not exacerbate the wildfire risk due to prevailing winds during project operation, and project buildout would have a net benefit in reducing fire risk to surrounding residents by creating a de facto fire break.

During project construction, equipment without appropriate spark arrestors could result in direct flame impingement on combustible materials. Without proper measures to require that construction activities be equipped with CAL FIRE-approved spark arrestors, project construction could result in the ignition of on-site fuel sources. The proposed residences and hotels within the Project Development Area would be completed and inhabited prior to construction within the Program Study Area begins. As such, in the event that residences are constructed and occupied as construction is being completed, ignition of on-site fuel sources could exacerbate fire risks and, due to prevailing winds, expose project occupants to pollutant concentrations from a wildfire. Thus, a significant impact could occur.

Conclusion

It is noted that the project site is located within a Moderate FHSZ, and, thus, is not considered to be subject to a high fire risk. Nonetheless, based on the above, the

proposed project could exacerbate wildfire risks, and thereby expose project occupants and residents in the project vicinity to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors. 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.

Project Development Area and Project Buildout

4.14-2 *In conjunction with the submittal of and prior to the approval of Improvement Plans, the applicant shall submit a Vegetation Management Plan (VMP) for review and approval by CAL FIRE, EDHFD, and the El Dorado County Planning and Building Department. The VMP shall identify roles, responsibilities, and financial resources to ensure successful implementation. The VMP shall be implemented by the project developer and maintained in perpetuity and may include, but not necessarily be limited to, the following:*

- *Management of the Open Spaces/Oak Woodlands During Project Construction or Adjacent Construction:*
    - *Prior to construction activities, all Open Space/Oak Woodland boundaries shall be designated by placing high visibility construction fencing and/or silt fencing. Fencing shall be maintained in good condition until permanent post and cable fencing can be installed; and*
    - *If applicable, prior to working within Open Space/Oak Woodland areas adjacent to wetlands, a qualified wetland biologist shall flag the wetland boundary and monitor construction activities to prevent encroachment into the wetland areas.*
    - *All construction machinery shall be equipped with CAL FIRE-approved spark arrestors.*

- *Open Space/Oak Woodland Maintenance*
    - *Ongoing Fuel Load Management activities shall focus on areas close to homes or on borders, as approved by the County and include activities to mow annual grasses, remove dead and/or diseased trees, snags, and debris, limb live trees up to a height of 10 feet above ground where feasible, and remove understory fuels over one foot in height, where feasible. The use of goats shall be the preferred method of reducing vegetation materials; alternative methods, such as plastic string weed trimmers or other County-approved equipment may be acceptable, but shall be limited to the maximum extent feasible. Chipping of material shall be permitted.*

Chipped material shall be removed from the site unless otherwise approved by the County. Prescribed burning shall be prohibited and herbicide use shall not be allowed within the fuel load reduction area; and

- *Annual monitoring memos shall be submitted to the County by June 30 of each year. The memos shall include, at a minimum, the following:*
  - *An assessment of dead vegetative matter (thatch) and management recommendations, if needed; and*
  - *An evaluation of general site conditions and recommendations for remedial fuel reduction actions to be included in the annual monitoring memo.*

4.14-3 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. Based on the analysis below, the impact is *less than significant*.

Development of the Project Development Area and Program Study Area would result in the construction of similar land uses on contiguous parcels. Thus, the following discussion applies to the potential for both components to exacerbate fire risk.

Project Development Area and Project Buildout

The proposed project would include installation of various infrastructure components, including roadways, emergency access roads, powerlines, and other utilities. Additionally, the proposed project would include off-site connections to a sewer line to the west and to a water line north of the project site in Bass Lake Road. All potential physical environmental impacts that could result from implementation of the proposed project have been evaluated throughout the technical chapters of this EIR.

The proposed roadways would not exacerbate fire risks, as the County Code requires vegetation clearance next to roadsides to reduce fire hazards. Additionally, pursuant to BLHSP standards, power lines and other utilities constructed for the proposed project would be undergrounded, which would reduce fire risks during operations. Through implementation of Mitigation Measure 4.14-2, a VMP would be established, requiring various provisions to ensure that regular maintenance of on-site open space/oak woodland areas is conducted, including the removal and reduction of hazardous fuels, which would reduce the potential for fire to occur within the project site and spread to adjacent areas.

Furthermore, as discussed above under Impact 4.14-2, structures constructed as part of the proposed project would comply with all applicable standards set forth by the CFC, including the requirement that an automatic fire sprinkler and/or fire extinguishing system be installed throughout new one- and two-family dwellings and

commercial buildings 3,600 sf and larger. Therefore, the proposed infrastructure improvements associated with the project would not substantially exacerbate wildfire risk.

While the long-term maintenance of the proposed roadways, emergency water supply connections, power lines, and other utilities would not exacerbate fire risks, the activities associated with the initial construction and placement of the utilities and infrastructure could cause a temporary increase in fire risks due to the use of heavy equipment, which would contain combustible materials such as fuels and oils and ignition sources. The project contractor would be required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous materials, which would help to minimize the potential for accidental conditions, including fire. Furthermore, compliance with Mitigation Measure 4.14-2 would reduce the fire risk during project construction activities.

Based upon the above, the proposed project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Therefore, the project would result in a ***less-than-significant*** impact.

Mitigation Measure(s)

None required.

4.14-4 Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Based on the analysis below, the impact is *less than significant*.

Development of the Project Development Area and Program Study Area would result in the construction of similar land uses on contiguous parcels. Thus, the following discussion applies to the potential for both components to expose people or structures to significant risks related to fire.

Project Development Area and Project Buildout

Wildfires alter landscapes and can result in post-event hazards triggered primarily by rainfall. Rainfall that is normally captured and stored by vegetation can run off almost instantly, causing creeks and drainage areas to flood much sooner during a storm and with more water than is expected under unburned conditions. Soils burned at moderate and high severity tend to have reduced infiltration capacity and are more easily eroded. The potential post-fire flooding, soil erosion, and debris flows can impact recreational areas, homes, structures, roads, and other infrastructure within, adjacent to, and downstream from burned areas.

Wildfire-related flooding and increased runoff may continue for several years in a burn area. However, post-fire debris flows do not typically occur beyond the second rainy season. Some of the largest debris-flow events happen during the first post-fire storm season. While multiple factors can affect debris-flow occurrence, post-fire debris flows

generally are triggered by one of two processes: surface erosion caused by rainfall runoff; and landslides caused by rainfall seeping into the ground. Surface erosion runoff processes are by far the most prevalent contributors to debris flows. Landsliding contributes less to fire-related debris flow, but prolonged heavy rains may increase soil moisture even after a wildfire.[19] The wetted soil can then fail, producing infiltration-triggered landslides. The landslides could be shallow or deep-seated (i.e., greater than 10 to 15 feet deep).

As previously discussed, while the majority of on-site terrain is gently sloped, the project site does contain incursions of steep slopes, particularly within the Program Study Area and along the intermittent drainage north of Country Club Drive. These steep slope incursions are discontinuous and lack the prominence typically required to render a site vulnerable to risks such as post-fire downslope flooding or landslides or post-fire slope instability. Additionally, while the project site contains grassy vegetation and scattered oak trees, through development of the proposed project, a portion of such vegetation would be removed as part of site improvements, thereby reducing the potential for substantial fire-burned areas to occur on-site.

The proposed project would involve the development of new stormwater infrastructure within the Project Development Area of the site. Stormwater generated on the project site would be directed towards inlets installed in various locations along the internal drive aisles. From the inlets in the northern portion of the Project Development Area, where the cottage units would be located, flows would be conveyed through new storm drain lines to either outfalls that would discharge to the east-west intermittent drainage to the north of Country Club Drive, or to a new detention basin, which would be located in the northwest portion of the project site immediately south of the northernmost site emergency access connection to Bass Lake Road. From the inlets in the southern portion of the Project Development Area, runoff from new impervious surfaces would be collected by inlets installed along the internal drive aisle network and conveyed to a new detention basin located immediately north of the southernmost site entrance from Old Country Club Drive. In the event that a fire was to occur on-site, the proposed stormwater infrastructure would reduce the potential for substantial amounts of sediment to be transported off-site by way of post-fire runoff. In addition, as discussed under Impact 4.7-4 in the Hydrology and Water Quality chapter of this EIR, the proposed project would not substantially alter the existing drainage patterns of the site or area in a manner that would result in significant impacts related to on-site or off-site flooding, exceeding the capacity of stormwater drainage systems, and/or generating substantial additional sources of polluted runoff. Pursuant to Mitigation Measure 4.7-2(e), a drainage report would be required to be prepared prior to future development of the Program Study Area, thus ensuring that full project buildout would not violate water quality standards or waste discharge requirements or otherwise result in substantial degradation of surface or groundwater quality during operations. Furthermore, as discussed above, the proposed project would be required to comply with all applicable CFC standards and regulations. Implementation of all of the aforementioned measures and standards would ensure that the proposed project's wildfire risks are reduced to the maximum extent feasible. As such, the proposed project would not significantly alter the existing drainage patterns of the site and would,

[19] U.S. Geological Survey. *Post-Fire Flooding and Debris Flow*. Available at: https://ca.water.usgs.gov/wildfires/wildfires-debris-flow.html. Accessed June 2024.

therefore, not expose people or structures in the project vicinity to risks such as downstream flooding as a result of post-fire drainage changes.

Based on the above, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, 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 more details regarding the cumulative setting, refer to Chapter 5, Statutorily Required Sections, of this EIR.

4.14-5 Increase in wildfire risk attributable to the proposed project, in combination with cumulative development. Based on the analysis below, the cumulative impact is *less than significant*.

Development of the Project Development Area and Program Study Area would result in the construction of similar land uses on contiguous parcels. Thus, the following discussion applies to the potential for both components to cause a cumulative increase in wildfire risk.

Project Development Area and Project Buildout

The cumulative setting for this EIR consists of the buildout of the El Dorado County General Plan, as well as other reasonably foreseeable projects within the project region that require an amendment to the General Plan. Future development within El Dorado County would result in changes to the existing land use environment through conversion of vacant land to developed uses that would result in a reduction of existing vegetation. For example, the LRVSP and the VMVSP projects would include the development of 740- and 2,341-acre properties, respectively, with residential uses. Both of the aforementioned Specific Plans are located south of the project site, across US 50. Similar to the project site, the majority of western El Dorado County is located within a Moderate to Very High FHSZ in an SRA. Thus, development associated with the County would be required to comply with defensible space standards, pursuant to California PRC Section 4291, and other wildfire risk minimization standards set forth in Chapter 7A of the CBC, including, but not limited to, use of ignition-resistant materials, fire-intrusion design of roofing and vents, and use of glazed exterior windows and doors. All buildings would be required to meet CFC requirements as set forth by the County and the CBC and CFC, as well as the supplemental fire prevention and protection statutes defined in Chapters 8.08 and 8.09 of the County Code.

Compliance with State and local standards would minimize wildfire risk at each of the project locations. In addition, buildout of the El Dorado County General Plan would remove existing fuel sources, thereby reducing the cumulative risk of wildfire hazards.

Additionally, as set forth by Mitigation Measure 4.14-2, the proposed project would be required to implement a VMP that would include management of on-site fuel sources during project construction and ongoing management of vegetated areas during project operation. The VMP requires, among other things, that during project construction, open space/oak woodland areas be clearly delineated so that minimal damage occurs to natural habitats, and that during project operation, ongoing maintenance of vegetated areas is completed.

As discussed under Impact 4.14-1 above, the evacuation analysis prepared for the proposed project included both cumulative and super-cumulative scenarios. Buildout of the proposed project would result in a maximum increase in outbound evacuation travel time of approximately 1.3 minutes; project buildout would result in a maximum increase in inbound emergency vehicle travel time of approximately 0.7 minutes. Therefore, the proposed project would not substantially impair emergency evacuation in the region under cumulative conditions.

Based on the above, the proposed project with implementation of the VMP required by Mitigation Measure 4.14-2, in combination with buildout of the El Dorado County General Plan, would have a ***less-than-significant*** cumulative impact related to exacerbating wildfire risk.

Mitigation Measure(s)

None required.

4.15. Effects Not Found to be Significant

4.15. EFFECTS NOT FOUND TO BE SIGNIFICANT

4.15.1 INTRODUCTION

Section 15128 of the CEQA Guidelines requires that an EIR briefly describe 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 proposed project. The reasons for the conclusion of non-significance are provided for each issue area, as applicable, below.

4.15.2 AGRICULTURAL AND FORESTRY RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the proposed 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 section 12220(g)), timberland (as defined by Public Resources Code 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; and
- 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 Farmland Mapping and Monitoring Program, the project site is designated as Other Land.[1] Other Land is defined as: “land not included in any other mapping category.” Therefore, important farmland, including Prime Farmland, Unique Farmland, or Farmland of Statewide Importance does not occur on the site and would not be converted to different land uses as part of the proposed project.

The Bass Lake Hills Specific Plan (BLHSP) designates the project site as Low Density Residential Planned Development with a maximum allowable density of 0.2 dwelling units per acre (du/ac) (L.2-PD) south of Country Club Drive and Low Density Residential Planned Development with a maximum allowable density of 0.7 du/ac (L.7-PD) north of Country Club Drive. The site is zoned Residential Estate-10 Acres (RE-10). In addition, the project site is not subject to a Williamson Act contract, and does not contain any forest land. Therefore, the proposed project would not conflict with existing zoning for agricultural or forest land, and would not result in the conversion and/or loss of farmland, forest land, or timberland. Accordingly, no impact would occur related to agricultural and forestry resources as a result of the proposed project.

[1] California Department of Conservation. *California Important Farmland Finder.* Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed April 2024..

4.15.3 BIOLOGICAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), National Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan.

The project site is not located in the plan area of any adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or State habitat conservation plan. Therefore, the proposed project would not be subject to the provisions of any adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan, and no impact would occur.

4.15.4 HAZARDS AND HAZARDOUS MATERIALS

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code 65962.5 and, as a result, would it create a significant hazard to the public of 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.

The site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5,[2] and impacts related to such would not occur. Therefore, the proposed project would not create a significant hazard to the public or the environment associated with being located on such site. The closest public use airport to the project site is the Sacramento McClellan Airport, which is located approximately 9.4 miles southwest of the site. The project site is not located in the vicinity of any private airstrips. As such, the project site is not located within the vicinity of an airport, and no impact related to such would occur.

4.15.5 HYDROLOGY AND WATER QUALITY

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Impede or redirect flood flows, or
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

[2] Youngdahl Consulting Group, Inc. *Phase I Environmental Site Assessment, The Town And Country Village El Dorado County APNs 119-080-012, -021, & -023 El Dorado Hills, California.* August 2022.

The entirety of the project site is within Zone X, which is designated by FEMA as an Area of Minimal Flood Hazard. Therefore, the project site is not located within a flood hazard zone, and, thus, the proposed project would not impede or redirect flood flows. In addition, the project site not located in the proximity of the coast or a closed body of water. Therefore, due to the project site's distance from the coast, potential impacts related to a tsunami are minimal. Additionally, the project site is not susceptible to impacts resulting from a seiche because of the site's distance from any enclosed bodies of water. As such, the proposed project would not be subject to the risk of release of pollutants due to project inundation. Therefore, no impacts would occur related to the aforementioned hydrology issues.

4.15.6 LAND USE AND PLANNING/POPULATION AND HOUSING

Consistent with Appendix G of the CEQA Guidelines, the proposed 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 project site does not currently contain any existing residential structures. In addition, residential uses are proposed within both the Project Development Area and Program Study Area. As such, the proposed project would not displace a substantial amount of existing housing or people and would result in the creation of new housing. Therefore, the proposed project would not necessitate the construction of replacement housing elsewhere, and no impact related to such would occur.

4.15.7 MINERAL RESOURCES

Consistent with Appendix G of the CEQA Guidelines, the proposed 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 of 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 Geology, Soils, and Mineral Resources Element of the 2004 El Dorado County General Plan, the County has a history of mining activity throughout El Dorado County. However, the 2004 El Dorado County General Plan does not identify the project site as an acceptable location for mineral extraction. In addition, the BLHSP designates the site as L.2-PD south of Country Club Drive and L.7-PD north of Country Club Drive and the site is zoned RE-10. Therefore, development of the site with uses unrelated to mineral resources has already been anticipated by the County. Furthermore, surface mining at the project site would not be compatible with existing surrounding land uses which include undeveloped land and rural residences within the BLHSP to the north; rural residences to the west; the El Dorado Hills Fire Department Station 86 to the northwest; undeveloped land and rural residences to the south, across U.S. Highway 50 (US 50); and undeveloped land to the east, with the Holy Trinity Parish and School located farther east. As such, development of the proposed 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 of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Accordingly, no impact would occur related to mineral resources.

4.15.8 NOISE

Consistent with Appendix G of the CEQA Guidelines, the proposed project was determined to have no impact with regard to the following issue areas:

- 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.

The closest public use airport to the project site is the Sacramento McClellan Airport, which is located approximately 9.4 miles southwest of the site. The project site is not located in the vicinity of any private airstrips. As such, the project site is not located within the vicinity of an airport, and no impact related to such would occur.

5. STATUTORILY REQUIRED SECTIONS

5. STATUTORILY REQUIRED SECTIONS

5.1 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 proposed 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 proposed project.

5.2 GROWTH-INDUCING IMPACTS

State CEQA Guidelines Section 15126.2(d) 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, it should not be assumed that induced growth is necessarily significant or adverse. This analysis examines the following potential growth-inducing impacts related to implementation of the proposed project and assesses whether these effects are significant and adverse (see CEQA Guidelines, Section 15126.2[d]):

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, using a 2.45 persons per household average size for El Dorado County, residential development associated with the Project Development Area is anticipated to house an estimated 274 residents. Development of the Project Development Area and the associated addition of 274 residents would increase the total current population of the BVLHSP area from 1,947 to 2,221, or a 14.1 percent increase. In addition, when considering buildout of the Program Study Area, full Project Buildout could result in a total population increase of approximately 1,807 residents. Development of the proposed project and the associated addition of an estimated 1,807 residents would increase the total current population of the BLHSP area from 1,947 to 3,754, or a 92.8 percent increase. However, the BLHSP projected that the area's population could grow by as many as 4,811 residents by buildout. Therefore, although the proposed project would have the potential to increase the population of the area, such an increase in population is planned and would be within

the range of growth projections assumed in the 2030 El Dorado County General Plan as well as for the BLHSP area. Furthermore, the infrastructure included in the proposed project would serve only the project.

While construction of the proposed project would result in increased construction employment opportunities, which could potentially result in increased permanent population and demand for housing in the vicinity of the project 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 proposed project. In addition, although the proposed project would include the development of commercial uses, which were not anticipated for the site in the 2030 General Plan, and could provide additional long-term employment opportunities, such opportunities would not be anticipated to result in a substantial increase in permanent population or demand or housing in the vicinity of the project site. The proposed project included development of 56 residential dwelling units reserved for on-site employee housing. In addition, the employment opportunities would likely be filled from the local employee base. As a result, the on-site employment opportunities would not be anticipated to result in a substantial increase in the permanent population or demand for housing in the project vicinity.

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 Impacts 4.8-3 and 4.8-5 within the Land Use and Planning/Population and Housing chapter of this EIR, the proposed project would result in population growth within El Dorado County, but such growth would be within the buildout projections for unincorporated areas within El Dorado County. Thus, while the project would foster population and economic growth, such growth would be similar to what has been previously anticipated for the project region as well as the project site, 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 4.13, Utilities and Service Systems, of this EIR, the project site is not currently served by a water service provider, and would require annexation into the El Dorado Irrigation District (EID) service area to accommodate the proposed project. The nearest existing water line is a 24-inch water main located in Bass Lake Road, approximately 2,000 feet north of the project site. As such, the proposed project would require an off-site water line extension or order to provide water to the project site. The proposed off-site water line extension would either include approximately 3,900 linear feet of new 12-inch water line, which would connect to the existing 24-inch line and extend south within Bass Lake Road to the project site, or would be installed within the alignment of the approved Bass Lake North Bike Trail that is planned to extend

along the east side of Bass Lake Road from Hollow Oaks Drive to Old Country Club Drive for approximately 1,600 linear feet.

In addition, two alternatives are currently proposed for providing sewer service to the project site. The first alternative consists of the construction of an approximately 10,510-linear-foot BLHSP sewer main connecting the project site to the existing 18-inch South Uplands Trunk Sewer-Gravity Main located in Russi Ranch Road, approximately 1.6 miles to the west. In order to receive public sewer service from EID, the project site would need to be annexed into the EID service area. The second alternative includes a septic sewer system as an interim solution for the Project Development Area of the project site. It is anticipated that the Project Development Area would initially include development of the proposed on-site septic system. Connection of the proposed project to the public sewer system is anticipated to occur at such time future development within the Program Study Area commences.

All potential physical environmental impacts that could result from development of the proposed project, including new utility infrastructure, have been evaluated throughout the technical chapters of this EIR. The on- and off-site water and sewer system improvements would be sized to serve only the proposed project and would be financed by the project applicant.

While the proposed project would also include development of an internal roadway system, which would connect to Bass Lake Road to the west and to Country Club Drive to the north, the proposed roadway improvements would improve connectivity to the project site, serving residents, visitors, and employees of the proposed project, and would not be anticipated to eliminate obstacles to population growth.

The aforementioned improvements are essential to support the proposed project and would not eliminate obstacles to growth in a manner that would encourage previously unplanned growth.

Affect Service Levels, Facility Capacity, or Infrastructure Demand

Increases in population that would occur as a result of a proposed project may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental impacts. As discussed in Chapter 4.10, Public Services and Recreation, of this EIR, increased demands for public services, including fire and police protection services, attributable to the proposed project would not necessitate the construction of new or expanded facilities that could cause significant environmental impacts. The proposed project would be required to comply with all General Plan and BLHSP policies and pay applicable fees that support emergency police and fire services. In addition, the project would be required to pay applicable fees to the Buckeye Union School District (BUSD) and El Dorado Union High School District (EDUGSD).

As discussed in Chapter 4.13, Utilities and Service Systems, of this EIR, the County confirmed that the EDH WWTP has adequate capacity to accommodate the full sewer generation from the proposed project, including both the Project Development Area and Program Study Area. In addition, EID is projected to maintain a supply which exceeds its projected demands by greater than 11,000 acre-feet (AF) in normal water years, single dry water years, and multi-year droughts from 2025 through 2045. Therefore, even if the proposed project's 207 acre-feet per year (AFY) of water demand was not included in EID's future demand growth anticipated by the 2020 Urban Water Management Plan (UWMP), EID would still have sufficient water supplies to serve the proposed project. While the proposed project would require an off-site water line connection and

is anticipated to include an off-site sewer connection either during construction of the Project Development Area or during future development of the Program Study Area, the proposed infrastructure improvements are essential to support the proposed project, would be sized to serve only the proposed project, and would be financed by the project applicant. All potential physical environmental impacts that could result from development of the proposed project, including new utility infrastructure, have been evaluated throughout the technical chapters of this EIR.

The landfill that would serve the proposed project has adequate capacity to manage the solid waste generated as a result of the project. Furthermore, mitigation measures set forth in Chapter 4.7, Hydrology and Water Quality, of this EIR would ensure that the proposed project would not create or contribute runoff water that would exceed the capacity of the County's stormwater drainage systems. Therefore, the proposed 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 proposed project. Please refer to Chapters 4.1 through 4.15 of this EIR, which comprehensively address the potential for impacts from development of the proposed project.

5.3 CUMULATIVE IMPACTS

CEQA Guidelines, Section 15130 requires that an EIR discuss the cumulative and long-term effects of the proposed project that would adversely affect the environment. "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines, Section 15355). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects" (CEQA Guidelines, Section 15355, subd. [a]). "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines, Section 15355, subd. [b]).

The need for cumulative impact assessment reflects the fact that, although a project may cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the increment may be "cumulatively considerable," and, thus, significant, when viewed together with environmental changes anticipated from past, present, and probable future projects (CEQA Guidelines, Section 15064, subd. [h(1)], Section 15065, subd. [c], and Section 15355, subd. [b]). Accordingly, particular impacts may be less than significant on a project-specific basis but significant on a cumulative basis if their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable. However, it should be noted that CEQA Guidelines, Section 15064, subdivision (h)(5) states, "[…]the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable.

Section 15130(b) of CEQA Guidelines indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, but that analysis should reflect the severity of the impacts and their likelihood of occurrence, and that the analysis should be focused, practical, and reasonable. To be adequate, a discussion of cumulative effects must include the following elements:

> (1) Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency's control, or (b) a summary of projections contained in an adopted general plan or related planning document, or in a prior certified EIR, which described or evaluated regional or area-wide conditions contributing to the cumulative impact, provide that such documents are reference and made available for public inspection at a specified location;
>
> (2) A summary of the individual projects' environmental effects, with specific reference to additional information and stating where such information is available; and
>
> (3) A reasonable analysis of all of the relevant projects' cumulative impacts, with an examination of reasonable, feasible options for mitigating or avoiding the project's contribution to such effects (Section 15130[b]).

For some projects, the only feasible mitigation measures will involve the adoption of ordinances or regulations, rather than the imposition of conditions on a project-by-project basis (Section 15130[c]). Section 15130(a)(3) states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund the project's fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

A discussion of cumulative impacts is provided within each of the technical chapters of this EIR pursuant to CEQA Guidelines Section 15130.

Cumulative Setting

The lead agency should define the relevant geographic area of inquiry for each impact category (id., Section 15130, subd. [b][3]), and should then identify the universe of "past, present, and probable future projects producing related or cumulative impacts" relevant to the various categories, either through the preparation of a "list" of such projects or through the use of "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact" (id., subd. [b][1]).

The majority of the cumulative analysis in this EIR is based upon a summary of projections contained in the 2004 El Dorado County General Plan, as well as other reasonably foreseeable projects within the project region that require an amendment to the General Plan, and, thus, are not included in its summary of projections. Local General Plan Amendment projects within El Dorado County for which a formal application has been submitted include, but are not limited to, the following projects:

- **Lime Rock Valley Specific Plan** - The Lime Rock Valley Specific Plan would develop an approximately 740-acre residential community at Deer Creek Road, including 800 residential units, a 15-acre neighborhood park with recreational amenities, and approximately 314 acres of public and private open space.

- **Village of Marble Valley Specific Plan** - The Village of Marble Valley Specific Plan is located on a 2,341-acre property, south of U.S. Highway 50 (US 50) between Bass Lake Road and Cambridge Road. The project would include approximately 3,236 dwelling units, and 475,000 square feet (sf) of commercial uses. Full buildout of the Village of Marble Valley Specific Plan would also include public facilities, such as a Village Center, two public schools, vineyards, a wine and agricultural center, and various open space uses (including a historic park, public and private parks, and trails).
- **EDH52** - The EDH 52 Project is located at the northeast corner of Silva Valley Road and US 50. The project would include the Silva Valley Parkway interchange and road realignment, as well as development of approximately 350,000 sf of commercial uses, including a hotel, drive-thru, gas station, grocery, and pharmacy, as well as various retail and restaurant uses.
- **Bass Lake Regional Park Project** - The Bass Lake Regional Park Project would develop passive and active recreational opportunities, including a dog park, volleyball courts, sport fields, multi-use trails, a fishing dock, and a boat ramp within a 200-acre regional park. The Bass Lake Regional Park Project would also include development of a 2,500-sf museum, educational facility, and outdoor amphitheater.
- **Generations at Green Valley** - The Generations at Green Valley project, located south of Green Valley Road, would include the subdivision of a 280.7-acre parcel into 379 single-family residential lots, a park and nine open space lots, and a clubhouse. Of the 379 proposed units, 214 would be age restricted high density single-family units for residents 55 years or older. The remaining 165 units would include 147 high density non-age restricted single-family units, and 18 residential estate, five-acre (RE-5) lots. The 18 RE-5 zoned lots would be located generally along the northern, eastern, and southern perimeter of the site as well as along Green Valley Road.
- **Cameron Meadows** - The Cameron Meadows Project is located on 104 acres east of the Cameron Park Airport between the Cameron Woods and Cameron Valley subdivisions and would include development of 161 single-family residences, as well as 16 attached accessory dwelling units (ADUs) that would be deed-restricted at a rate affordable to low-income households. The project would preserve approximately 62.64 acres of the site as open space.

Limited situations exist where geographic setting differs between project chapter analysis within a particular region. For example, the cumulative geographic setting for hydrology is the Carson Creek Watershed, in which the project site is located. In addition, the cumulative geographic setting for air quality is the Mountain Counties Air Basin (MCAB). 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 proposed project, the geographical context for global climate change in this EIR is limited to the State of California.

Table 1 below provides a summary of the geographic scope for the cumulative analysis of each environmental resource topic analyzed within this EIR.

Table 1
Geographic Scope

Resource Topic	Geographic Area
Aesthetics	Project site, in combination with buildout of the BLHSP and the list of reasonably foreseeable projects presented above
Air Quality, GHG Emissions, and Energy	MCAB (Air Quality); State of California (GHG Emissions); Project site, in combination with buildout of the El Dorado County General Plan and the list of reasonably foreseeable projects presented above (Energy)
Biological Resources	Project site, in combination with buildout of the El Dorado County General Plan and the list of reasonably foreseeable projects presented above
Cultural Resources	Project site and site vicinity[1]
Geology and Soils	Project site and site vicinity[1]
Hazards and Hazardous Materials	Project site and site vicinity[1]
Hydrology and Water Quality	Carson Creek Subwatershed
Land Use and Planning/Population and Housing	Project site and site vicinity (Land Use and Planning); BLHSP (Population and Housing)
Noise	Project site, in combination with buildout of the El Dorado County General Plan and the list of reasonably foreseeable projects presented above
Public Services and Recreation	Project site, in combination with buildout of the El Dorado County General Plan and the list of reasonably foreseeable projects presented above
Transportation	Project site, in combination with buildout of the El Dorado County General Plan and the list of reasonably foreseeable projects presented above
Tribal Cultural Resources	Project site and site vicinity[1]
Utilities and Service Systems	Project site, in combination with buildout of the El Dorado County General Plan and the list of reasonably foreseeable projects presented above
Wildfire	Project site and region

[1] The narrower geographic area is generally due to the site-specific nature of this CEQA topic, as further described in the cumulative section of the corresponding technical chapter.

5.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2(d) identifies an impact category that sometimes must be addressed in EIRs: significant irreversible environmental changes that would be caused by the proposed project, should the project be implemented. CEQA Guidelines Section 15127 states that this impact category need be included only in EIRs prepared in connection with certain categories of projects, one of which is "[t]he adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency." Although the proposed project is not itself a plan, policy, or ordinance, the proposed project does propose amendments to the General Plan. For this reason, the City has conservatively chosen to address this impact category.

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 proposed 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 proposed project would likely result in, or contribute to, the following significant irreversible environmental changes:

- Conversion of predominantly vacant land to a fully built-out mixed-use community, thus precluding alternative land uses in the future; and
- Irreversible consumption of goods and services, such as fire, law enforcement, and school services, associated with the future population; and
- Irreversible consumption of energy and natural resources, such as water and electricity, associated with the future residential and commercial uses.

If the County chooses to approve the proposed project, the County 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 County might invoke in approving the project. For example, the County might conclude that the economic and social benefits created by the proposed project justify the irretrievable loss of environmental and natural resources.

5.5 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[b]). 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 County. The final determination of the significance of impacts and the feasibility of mitigation measures would be made by the County as part of the County's certification action. The significant and unavoidable impacts of the proposed project are summarized below.

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. (Impact 4.1-3)

Both buildout of the Project Development Area and full project buildout would not significantly change views of the project site from Views B and C. However, views of the existing rural character of the project site from Views 1 through 7 (excluding View 3), as well as View A, would be significantly altered by buildout of the Project Development Area; the aforementioned Views, as well as View 3, would also be significantly altered by full project buildout. Therefore, the existing visual character and quality of public views of the site would be substantially degraded by development of both components of the proposed project. The proposed project would be

required to implement Mitigation Measure 4.1-3. However, even with implementation of Mitigation Measure 4.1-3, the proposed project's impact was determined to remain significant and unavoidable.

Long-term changes in visual character associated with development of the proposed project in combination with future buildout of the El Dorado County General Plan. (Impact 4.1-5)

Development of the proposed project would substantially degrade the visual character and the quality of public views of the project site. In context with the planned development in the project vicinity, the proposed project would contribute towards significantly altering the visual character of the surroundings. The proposed project would be required to implement Mitigation Measure 4.1-3. However, even with implementation of Mitigation Measure 4.1-3, the proposed project's impact was determined to remain significant and unavoidable.

Conflict with or obstruct implementation of the applicable air quality plan during project operation. (Impact 4.2-2)

Full buildout of the proposed project, when considering concurrent operation of the Project Development Area and Program Study Area, would result in reactive organic gas (ROG) emissions above the applicable El Dorado County Air Quality Management District (EDCAQMD) thresholds of significance. Implementation of Mitigation Measures 4.2-2(a) and 4.2-2(b) would reduce the proposed project's operational area and mobile source emissions. However, because the proposed project does not currently include any specific development plans, designs, or proposals for the Program Study Area, the determination as to which specific measures included in Mitigation Measure 4.2-2(a) are feasible for development of the Program Study Area, and their relative effectiveness, cannot be conclusively determined at this time. In addition, the effectiveness of the California Air Pollution Control Officers Association (CAPCOA) measures set forth within Mitigation Measure 4.11-3, implementation of which would be required by Mitigation Measure 4.2-2(b), cannot be quantified at this time and subsequent vehicle trip reduction effects cannot be guaranteed. As such, even with implementation of Mitigation Measures 4.2-2(a) and 4.2-2(b), the proposed project's operational ROG and nitrous oxide (NO_X) emissions would continue to exceed the applicable thresholds of significance. Additional feasible mitigation for the reduction of the proposed project's operational ROG and NO_X emissions to below the applicable thresholds of significance is not currently available. Thus, the impact would remain significant and unavoidable.

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). (Impact 4.2-6)

The proposed project's maximum unmitigated operational emissions of ROG and NO_x would exceed the applicable EDCAQMD thresholds of significance. Even with implementation of Mitigation Measures 4.2-2(a) and 4.2-2(b) for the Program Study Area, the proposed project would result in emissions that exceed the EDCAQMD thresholds of significance during operations. Therefore, as discussed under Impact 4.2-2, because the proposed project's operational ROG and NO_X emissions would still not be reduced to below the applicable thresholds of significance, and additional feasible mitigation sufficient to reduce the proposed project's operational ROG and NO_X emissions to below the EDCAQMD's thresholds of significance is not

currently available, even with implementation of the following mitigation measure, the proposed project's incremental contribution to the significant cumulative effect would remain cumulatively considerable and significant and unavoidable.

Generation of GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. (Impact 4.2-7)

The proposed project would be considered to generate GHG emissions during construction of the Project Development Area and Project Buildout that would have a significant impact on the environment. In addition, project consistency with the Sacramento Metropolitan Air Quality Management District (SMAQMD) best management practices (BMPs) cannot be ensured at this time. Implementation of Mitigation Measures 4.2-7(a) and 4.2-7(b) would reduce the above potential impacts related to construction GHG emissions, as well as project consistency with BMP-1 and BMP-2 to a less-than-significant level. As a result, the Project Development Area's incremental contribution to the cumulatively significant effects of GHG emissions and global climate change would be reduced to a less than cumulatively considerable level.

With regard to BMP-3, as discussed further in Chapter 4.11, Transportation, of this EIR, mitigation for the vehicle miles traveled (VMT) associated with the residential portion of the Program Study Area can be based on measures identified by CAPCOA. However, several of such measures are already inherently included in the design of the project. Additional CAPCOA measures are included as Mitigation Measure 4.11-3 to reduce the number of vehicle trips that would be generated by the residential component of the Program Study Area. However, the CAPCOA measures included in Mitigation Measure 4.11-3 are not anticipated to reduce per capita VMT by the required 13.83 percent needed to meet the applicable threshold of significance. Consequently, the proposed project would still be considered inconsistent with SMAQMD BMP-3, and the incremental contribution to the cumulatively significant effects of GHG emissions and global climate change related to full Project Buildout, specifically, the residential portion of the Program Study Area, would remain cumulatively considerable and significant and unavoidable.

Cumulative loss of habitat for special-status species and oak woodlands. (Impact 4.3-14)

Project-specific impacts to special-status species and habitats, including oak woodlands, would be reduced to a less-than-significant level with the implementation of mitigation set forth within this chapter. However, consistent with the conclusions of the Bass Lake EIR and the El Dorado County General Plan EIR, the combined effects on biological resources resulting from buildout of the proposed project in combination with approved/planned development throughout the County would be considered significant and unavoidable. The proposed project's incremental contribution to cumulative impacts on special-status species habitat, riparian habitat, State and federally protected wetlands, and oak woodlands during buildout of the Project Development Area and Project Buildout, while reduced through the mitigation measures included in this chapter, could be considered cumulatively considerable. Therefore, the project's contribution to the cumulative loss of habitat for special-status species and oak woodlands identified in the El Dorado County General Plan EIR and the Bass Lake EIR would remain significant and unavoidable.

Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. (Impact 4.4-1)

As discussed further in the Project Description chapter of this EIR, the proposed project would include construction of a future private road, which would extend through the southern portion of the project site from Old Country Club Drive to the surface parking area associated with the hotel/event center. The majority of the historical road would be unimpacted by development of the new private road. However, the future private road would impact a small portion of the historic road segment. In addition, the proposed surface parking area associated with the hotel/event center would encroach on the historic road for approximately 100 feet east of Bass Lake Road. Within the off-site sewer alignment alternatives, the proposed project could result in a potential impact to the resource as a result of excavation or trenching activities associated with the off-site sewer line and use of heavy equipment along Old Bass Lake Road (Lincoln Highway), which could damage the old macadam surfaces. Trenching could potentially impact the character-defining features of the road if the road prism is widened or if the road trenching or excavation is not returned close to its previous surface condition. Mitigation to address potential impacts related to the historic road segments of the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway would include completion of a Phase II Archaeological Testing Program in order to recover and document any historical artifacts that lie within the road prism, further evaluation of any historical artifacts found, and the placement of temporary drip fencing in order to protect the historic road segment that occurs within the project site. However, construction of the future private road and surface parking area associated with the hotel/event center cannot feasibly avoid the entirety of the on-site segment of the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway. Thus, even with implementation of the Mitigation Measures 4.4-1(a) through 4.4-1(d), the impact would remain significant and unavoidable.

Generation of a substantial permanent increase in ambient noise levels associated with Project Buildout in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Based on the predicted noise levels presented in Table 4.9-35 through Table 4.9-40 of this EIR, combined on-site operational noise level exposure associated with full Project Buildout could exceed applicable El Dorado County General Plan daytime, evening or nighttime exterior noise level standards and/or General Plan increase significance criteria at nearby existing sensitive uses. Implementation of Mitigation Measure 4.9-3 would result in the identification of specific noise mitigation measures designed to reduce noise levels associated with operations of full Project Buildout. While some of the potential noise mitigation measures that may be included as part of the noise impact study could provide appreciable noise level decreases, such measures could be infeasible from a cost, site constraint, engineering or safety standpoint, or may not fully mitigate the noise impacts to a state of compliance with applicable El Dorado County noise level criteria. Thus, the successful implementation of the mitigation measures cannot be guaranteed. Furthermore, depending on the site design of the Program Study Area, implementation of measures, should they be warranted, may not fully mitigate combined noise level exposure from on-site operations associated with full Project Buildout to a state of compliance with applicable El Dorado County noise level criteria at nearby existing sensitive uses. However, due to the identified uncertainties, even with implementation of Mitigation Measure 4.9-3, the proposed project's impact was determined to remain significant and unavoidable.

Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). (Impact 4.11-3)

The residential component of the Program Study Area would generate VMT per resident above the unincorporated El Dorado County baseline average. Feasible mitigation measures to reduce VMT for the Program Study Area residential uses, as identified by CAPCOA, are already designed into the proposed project, such as the mixed-use nature of the proposed project and bicycle connectivity. Additional CAPCOA measures ultimately rely upon an alternative transportation mode, such as transit, being available. Mitigation Measure 4.11-3 focuses on reducing the availability of automobiles to discourage travel. However, according to CAPCOA, the Program Study Area would require a 13.83 percent reduction in VMT to facilitate a less-than-significant finding for VMT impacts under CEQA. Because alternative modes of transportation are not available for the residential portion of the Program Study Area and Mitigation Measure 4.11-3 is not anticipated to reduce per capita VMT by the required 13.83 percent, impacts would remain significant and unavoidable.

Cumulatively conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). (Impact 4.11-6)

The dwelling units constructed as part of the Program Study Area would generate a household VMT per resident of 21.4 under super cumulative conditions, and 22.9 under 2040 horizon year cumulative buildout conditions, which would exceed the 18.8 VMT threshold of significance. Therefore, similar to project-specific impacts, under cumulative conditions, Project Buildout would result in a significant impact related to residential VMT. Mitigation measures that would reduce VMT, as identified by CAPCOA, are already inherently included as part of project design. Additional VMT mitigation, included as Mitigation Measure 4.11-3, would serve to reduce VMT, but not to a less-than-significant level. Therefore, VMT impacts would remain cumulatively considerable and significant and unavoidable.

6. ALTERNATIVES ANALYSIS

6. ALTERNATIVES ANALYSIS

6.1 INTRODUCTION

The Alternatives Analysis chapter of the EIR includes consideration and discussion of a range of reasonable alternatives to the proposed project, as required per 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 proposed project's impacts; and the environmentally superior alternative.

6.2 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 proposed project is being pursued with the following objectives:

1. Create a high-quality mixed-use development that combines commercial and residential facilities in a single project that is consistent with and fulfills many of the goals, objectives, and policies of the El Dorado County General Plan.
2. Emphasize the preservation of open space, existing oak woodland resources, natural topography, intermittent streams, and drainages consistent with the policies of the Bass Lake Hills Specific Plan.
3. Provide on-site public hiking, biking, and equestrian trails complimentary to and connecting the existing and future trail systems within the Bass Lake Hills Specific Plan area.
4. Preserve and protect the remnants and alignment of the historic Lincoln Highway and acknowledge and promote the history of the 1800's Old Wagon trail "The Clarksville Toll Road" as a Class 1 bike path and modern roadway.
5. Provide the opportunity for the development of a range of housing types and densities in proximity to US 50 and other transportation corridors in the area.

6. Develop a mixed-use project that reduces traffic impacts and vehicles miles traveled through the provision of on-site workforce housing for those employed in the proposed project.
7. Provide four and five-star rated lodging and reception facilities, together with related commercial retail uses and restaurants to serve the existing community neighborhoods and the touring public, thereby creating a distinctive destination resort.

Impacts Identified in the EIR

In addition to attaining the majority of project objectives, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. The significance levels of impacts identified in the EIR are presented below.

Less Than Significant or No Impact

As discussed within each respective section of this EIR, the proposed project would result in no impact, a less-than-significant impact, or a less than cumulatively considerable contribution to a significant cumulative impact related to the following topics associated with the resource areas indicated, and mitigation would not be required:

- ***Aesthetics***
  - Have a substantial adverse effect on a scenic vista.
  - Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.
  - Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

- ***Agricultural and Forestry Resources***
  - 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 section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).
  - Result in the loss of forest land or conversion of forest land to non-forest use.
  - Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

- ***Air Quality, Greenhouse Gas Emissions, and Energy***
  - Conflict with or obstruct implementation of the applicable air quality plan during project construction.
  - Result in other emissions (such as those leading to odor) adversely affecting a substantial number of people.
  - Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.

- Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.

- ***Biological Resources***
  - Interfere substantially with the movement of any 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 the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan.

- ***Cultural and Tribal Cultural Resources***
  - Cause a cumulative loss of cultural resources.

- ***Geology and Soils***
  - 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, or seismic-related ground failure, including liquefaction, and landslides.
  - 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 wastewater.
  - Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
  - Cumulative increase in the potential for geological related impacts and hazards.

- ***Hazards and Hazardous Materials***
  - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
  - Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
  - 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.
  - 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.
  - Cumulative exposure to potential hazards and increases in the transport, storage, and use of hazardous materials.

- ***Hydrology and Water Quality***
  - Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
  - 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.

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Cumulative impacts related to the violation of water quality standards or waste discharge requirements, and impacts resulting from the alteration of existing drainage patterns.

- ***Land Use and Planning/Population and Housing***
  - 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).
  - Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.
  - Cause a significant cumulative 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.
  - Cumulative substantial unplanned population growth.

- ***Mineral Resources***
  - 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.
  - 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.

- ***Noise***
  - 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.
  - Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
  - 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.
  - Generation of a substantial permanent increase in ambient noise levels associated with the proposed project in combination with cumulative development.

- ***Public Services and Recreation***
  - 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.
  - 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 sheriff protection services.
- 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 schools.
- 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 parks; 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, or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.
- 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 other public facilities.
- Cumulative impacts to public services.

- ***Transportation***
  - Conflict with a program, plan, ordinance, or policy, except LOS, addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, during operations.
  - 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).
  - Result in inadequate emergency access.

- ***Tribal Cultural Resources***
  - Cause a cumulative loss of tribal cultural resources.

- ***Utilities and Service Systems***
  - Require or result in the relocation or construction of new or expanded water, wastewater treatment, 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, single dry, and multiple dry years.
  - Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
  - Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste.

- Increase in demand for utilities and service systems associated with the proposed project, in combination with future buildout of the El Dorado County General Plan.

- ***Wildfire***
  - Substantially impair an adopted emergency response plan or emergency evacuation plan.
  - 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.
  - Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.
  - Increase in wildfire risk attributable to the proposed project, in combination with cumulative development.

Less Than Significant with Mitigation

Environmental impacts (including cumulative impacts) of the proposed project that have been identified as requiring mitigation measures to ensure that the level of significance is ultimately less than significant include the following:

- ***Air Quality, Greenhouse Gas Emissions, and Energy.*** The EIR determined that implementation of the proposed project could expose sensitive receptors to substantial pollutant concentrations. However, the EIR requires mitigation in order to ensure that the aforementioned impact is reduced to a less-than-significant level.

- ***Biological Resources.*** The EIR determined that implementation of the proposed project could result in potential adverse effects to special-status plants, Crotch's bumble bee, vernal pool fairy shrimp, monarch butterfly, foothill yellow-legged frog (FYLF), northwestern pond turtle, nesting birds and raptors, roosting bats, and Northern California ringtail either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. In addition, the project could result in a substantial adverse effect on riparian habitat and/or other sensitive natural communities, or have a substantial adverse effect on federal or State protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Given that the proposed project would involve the removal of trees, the project could conflict with local policies and/or ordinances that protect biological resources, such as a tree preservation policy or ordinance. The EIR requires mitigation in order to ensure that all of the aforementioned impacts related to biological resources would be reduced to less-than-significant levels.

- ***Cultural Resources.*** The EIR determined that implementation of the proposed project could cause a substantial adverse change in the significance of a unique archaeological resource or disturb human remains, including those interred outside of dedicated cemeteries. However, the EIR requires mitigation in order to ensure that impacts related to cultural resources would be less than significant.

- ***Geology and Soils.*** The EIR determined that implementation of the proposed project could result in substantial soil erosion or the loss of topsoil, as well as impacts related to being 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. However, the EIR requires mitigation in order to ensure that the aforementioned impacts are reduced to less-than-significant levels.

- ***Hazards and Hazardous Materials.*** The EIR determined that the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. However, the EIR requires mitigation in order to ensure that the aforementioned impact is reduced to a less-than-significant level.

- ***Hydrology and Water Quality.*** The EIR determined that implementation of the proposed project could violate water quality standards or waste discharge requirements or otherwise substantially degrade surface water or ground water quality during construction and/or operations. In addition, the EIR determined that the proposed project could 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. However, the EIR requires mitigation in order to ensure that impacts related to hydrology and water quality are reduced to less-than-significant levels.

- ***Noise.*** The EIR determined that implementation of the proposed project could result in the generation of a substantial permanent increase in ambient noise levels associated with the Project Development Area in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. However, the EIR requires mitigation in order to ensure that the foregoing impact related to noise is reduced to a less-than-significant level.

- ***Transportation.*** The EIR determined that implementation of the proposed project could conflict with a program, plan, ordinance, or policy, except level of service (LOS), addressing the circulation system during construction activities. However, the EIR requires mitigation in order to ensure that the foregoing impact related to transportation is reduced to a less-than-significant level.

- ***Tribal Cultural Resources.*** The EIR determined that implementation of the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource, as defined in PRC Section 21074. However, the EIR requires mitigation in order to ensure that the foregoing impact related to tribal cultural resources is reduced to a less-than-significant level.

- ***Wildfire.*** The EIR determined that implementation of the project could result in a significant impact related to exacerbating wildfire risks due to slope, prevailing winds, and other factors, and thereby exposing project occupants to, pollutant concentrations from a

wildfire or the uncontrolled spread of a wildfire. However, the EIR requires mitigation to ensure that the aforementioned impact is reduced to a less-than-significant level.

Significant and Unavoidable

The EIR has determined that the following project impacts would remain significant and unavoidable, even after implementation of the feasible mitigation measures set forth in this EIR:

- ***Aesthetics.*** The EIR determined that the proposed project would result in a significant and unavoidable impact related to substantially degrading the existing visual character or quality of public views of the site and its surroundings. In addition, the proposed project's contribution to the long-term changes in visual character associated with cumulative development of the proposed project in combination with future buildout of the project area was determined to be significant and unavoidable.

- ***Air Quality, Greenhouse Gas Emissions, and Energy.*** The EIR determined that the proposed project would result in a significant and unavoidable impact related to conflicting with or obstructing implementation of the applicable air quality plan during project operation. The EIR also determined that the proposed project would result in a cumulatively considerable and significant and unavoidable impact related to resulting 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) and a cumulatively considerable and significant and unavoidable impact related to the generation of greenhouse gas emissions (GHGs) 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.

- ***Biological Resources.*** The EIR determined that the proposed project would result in a significant and unavoidable impact related to the cumulative loss of habitat for special-status species and oak woodlands.

- ***Cultural Resources.*** The EIR determined that the proposed project would result in a significant and unavoidable impact related to causing a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

- ***Noise.*** The EIR determined that the proposed project could result in a significant and unavoidable impact related to the generation of a substantial permanent increase in ambient noise levels associated with Project Buildout in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

- ***Transportation.*** The EIR determined that the proposed project would result in a significant and unavoidable impact related to a conflict with CEQA Guidelines section 15064.3, subdivision (b), which is related to vehicle miles traveled (VMT). In addition, the EIR determined that the proposed project would cumulatively conflict with CEQA Guidelines section 15064.3, subdivision (b).

6.3 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 it 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). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

The off-site alternative was considered but dismissed from detailed analysis in this EIR. The reason(s) 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 proposed project that are feasible and able to substantially lessen or avoid 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. Based on a review of satellite imagery of the region, and a review of approved/pending projects in the western El Dorado County region, there are limited 60-acre properties that are well-suited for the proposed project. Within the Bass Lake Hills Specific Plan (BLHSP) boundaries, several recent tentative subdivision maps have been approved north of the project site, including Bell Ranch, Bell Woods, Hollow Oak, Bass Lake North, and Hawk View. The remaining area of the BLHSP, where tentative subdivision maps have not yet been approved, consists primarily of the southern and central areas of the Plan. These areas contain conditions and habitats similar to the project site, including, but not limited to, grasslands, scattered oak woodlands, and in some cases, aquatic resources such as Carson Creek and intermittent drainages (see BLHSP, Figure 1-5). Thus, it is reasonable to conclude that placing the proposed project on another 60-acre property within the BLHSP would not avoid or substantially lessen any of the significant impacts identified for the proposed project.

Remaining large land areas outside of the BLHSP that have yet to be developed with residential and/or commercial uses are generally located within entitled projects or projects being actively processed by the County, including the Promontory Specific Plan, El Dorado Hills Specific Plan, Village of Marble Valley Specific Plan (VMVSP), Lime Rock Valley Specific Plan (LRVSP), and the Carson Creek Specific Plan. As identified in the project objectives above, the basic objectives of the proposed project are to create a high-quality mixed-use development that combines commercial and residential facilities in a single project that is consistent with the El Dorado County General Plan and to provide on-site public hiking, biking, and equestrian trails complimentary to and connecting the existing and future trail systems within the BLHSP area. While adequately sized land areas are available outside of the BLHSP boundary that could accommodate the proposed project, development outside of the BLHSP boundary would be inconsistent with some of the basic project objectives and either located within the boundaries of an entitled/pending project and/or on a property that would not result in substantially lessening or avoidance of significant project impacts. Thus, an Off-Site Alternative was dismissed from detailed analysis within this EIR.

Alternatives Considered in this EIR

The following alternatives are considered and evaluated in this section:

- No Project (No Build) Alternative;
- Buildout Pursuant to BLHSP Alternative; and
- Higher Density Alternative.

Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative's anticipated impacts in comparison to the proposed project. 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 proposed project. When

comparing the potential impacts resulting from implementation of the foregoing alternatives, the following terminology is used:

- "Fewer" = Less than Proposed Project;
- "Similar" = Similar to Proposed Project; and
- "Greater" = Greater than Proposed Project.

When the term "fewer" is used, the reader should not necessarily equate this to elimination of significant impacts identified for the proposed project. For example, in many cases, an alternative would reduce the relative intensity of a significant impact identified for the proposed 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 proposed 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 proposed project. To the extent possible, this analysis will distinguish between the two implications of the comparative words "fewer" and "greater".

See Table 6-2 for a comparison of the environmental impacts resulting from the considered alternatives and the proposed 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 County has decided to evaluate a No Project (No Build) Alternative, which assumes that the current conditions of the project site would remain, and the site would not be developed. As described in this EIR, Country Club Drive crosses through the northern portion of the site and a dirt road is located in the western area of the site. With the exception of two wells located near the center of the site, the project site is otherwise undeveloped. On-site vegetation consists of seasonal grasses and scattered oak trees. In addition, rock outcroppings are located throughout the site. Seasonal wetlands have also been observed on-site, as well as roadside ditches and an intermittent drainage north of Country Club Drive. The No Project (No Build) Alternative would not meet any of the project objectives.

Aesthetics

The EIR determined that the proposed project would result in a significant and unavoidable impact related to substantially degrading the existing visual character or quality of public views of the site and its surroundings. The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site. Because the No Project (No Build) Alternative would not introduce any new structures or buildings on the site, the Alternative would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and the creation of new sources of light or glare would not occur. Thus, significant impacts related to Aesthetics would not occur under the No Project (No Build) Alternative.

Air Quality, Greenhouse Gas Emissions, and Energy

Because the No Project (No Build) Alternative would not involve development of the project site, operational activities would not occur under the alternative. Therefore, the Alternative would not result in operational emissions, and would not generate reactive organic gas (ROG) or nitrogen oxides (NO_X) emissions in exceedance of the El Dorado County Air Quality Management District's (EDCAQMD's) significance thresholds. Thus, the significant and unavoidable impact identified for the full project buildout related to air quality would not occur under the No Project (No Build) Alternative, and Mitigation Measures 4.2-2(a) and (b) would not be required. In addition, the No Project (No Build) Alternative would not expose sensitive receptors to substantial pollutant concentrations, and Mitigation Measure 4.2-3 would not be required. Furthermore, the cumulatively considerable and significant and unavoidable impacts related to criteria pollutants and the generation of GHG emissions would not occur under the No Project (No Build) Alternative. Overall, significant impacts related to Air Quality and GHG emissions would not 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 project site. As such, the Alternative would not have the potential to significantly impact special-status plants, Crotch's bumble bee, vernal pool fairy shrimp, monarch butterfly, FYLF, northwestern pond turtle, nesting birds and raptors, roosting bats, or Northern California ringtail. In addition, the No Project (No Build) Alternative would not result in a substantial adverse effect on riparian habitat and/or other sensitive natural communities, or have a substantial adverse effect on federal or State protected aquatic resources. The Alternative would not include removal of trees and, thus, would not conflict with local policies and/or ordinances that protect biological resources, such as a tree preservation policy or ordinance. In addition, the cumulatively considerable and significant and unavoidable impact related to the cumulative loss of habitat for special-status species and oak woodlands would not occur under the No Project (No Build) Alternative. As such, none of the mitigation measures related to biological resources required for the proposed project would be required under the Alternative. Overall, the significant impacts identified for the proposed project related to Biological Resources would not occur under the No Project (No Build) Alternative.

Cultural Resources

Because land disturbance would not occur under the No Project (No Build) Alternative, the Alternative would not have the potential to result in significant impacts to Cultural Resources. Mitigation Measures 4.4-1(a) through 4.4-1(d), 4.4-2(a) through 4.4-2(c), and 4.4-3 would not be required. In addition, the significant and unavoidable impact related to causing a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5 would not occur under the No Project (No Build) Alternative. Overall, the significant

impacts identified for the proposed project related to Cultural Resources would not 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, substantial soil erosion or loss of topsoil would not occur, and the Alternative would not result in impacts related to placing structures 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. Thus, Mitigation Measures 4.5-2 and 4.5-3 would not be required. Overall, significant impacts related to Geology and Soils would not occur under the No Project (No Build) Alternative.

Hazards and Hazardous Materials

Because the current conditions of the project site would remain under the No Project (No Build) Alternative, the Alternative would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment related to the wells located within the Program Study Area of the site, as well as the unknown potential environmental conditions of the proposed off-site improvement areas. As such, Mitigation Measures 4.6-2(a) through 4.6-2(c) would not be required. Overall, significant impacts related to Hazards and Hazardous Materials would not 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 violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or ground water quality during construction and/or operation. Thus, Mitigation Measures 4.7-1 and 4.7-2(a) through 4.7-2(e) would not be required. In addition, because the No Project (No Build) Alternative would not include any alterations to the project site, the Alternative would not have the potential to 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. As such, Mitigation Measures 4.7-4(a) and 4.7-4(b) would not be required. Overall, significant impacts related to Hydrology and Water Quality would not occur under the No Project (No Build) Alternative.

Noise

The No Project (No Build) Alternative would not introduce any new land uses to the project site, and thus, would not have the potential to result in the generation of a substantial permanent increase in ambient noise levels associated with the Project Development Area in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. As such, Mitigation Measures 4.9-2(a) and 4.9-2(b) would not be required. In addition, under the No Project (No Build) Alternative, the potential significant and unavoidable impact related to the generation of a substantial permanent increase in ambient noise levels associated with Project Buildout in excess of standards established in the local general plan or

noise ordinance, associated with the proposed project would not occur, and Mitigation Measure 4.9-3 would not be required.

Transportation

The No Project (No Build) Alternative would not include construction activities that could result in a conflict with a program, plan, ordinance, or policy, except level of service (LOS), addressing the circulation system; thus, Mitigation Measure 4.11-1 would not be required. In addition, because development of new residential development would not occur under the No Project (No Build) Alternative, the Alternative would not result in a significant and unavoidable impact related to a conflict with CEQA Guidelines section 15064.3, subdivision (b), or cumulatively conflict with CEQA Guidelines section 15064.3, subdivision (b). Thus, the Alternative would not result in any impacts related to VMT, and Mitigation Measure 4.11-3 would not be required. Overall, significant impacts related to Transportation would not occur under the No Project (No Build) Alternative.

Tribal Cultural Resources

Because land disturbance would not occur under the No Project (No Build) Alternative, the Alternative would not have the potential to result in significant impacts to Tribal Cultural Resources. As such, implementation of Mitigation Measures 4.12-1(a) through 4.12-1(e) would not be required. Overall, the significant impacts identified for the proposed project related to Tribal Cultural Resources would not occur under the No Project (No Build) Alternative.

Wildfire

New habitable structures would not be constructed on-site under the No Project (No Build) Alternative. Because the Alternative would not involve construction activities and would not be developed with urban uses, equipment without appropriate spark arrestors that could result in direct flame impingement on combustible materials, such as existing on-site vegetation or building construction supplies, would not be used on-site. As a result, the Alternative would not have the potential to exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, Mitigation Measure 4.14-2 would not be required. Overall, the significant impact identified for the proposed project related to Wildfire would not occur under the No Project (No Build) Alternative.

Buildout Pursuant to BLHSP Alternative

Under the Buildout Pursuant to BLHSP Alternative, the entire 60.5-acre project site would be developed consistent with the site's existing BLHSP land use designations. As shown in Figure 3-4 in Chapter 3, Project Description, of this EIR, the BLHSP designates the approximately 43.12-acre portion of the project site located south of Country Club Drive as Low Density Residential Planned Development with a maximum allowable density of 0.2 dwelling units per acre (du/ac) (L.2-PD); the approximately 17.38-acre portion of the project site located north of Country Club Drive is designated as Low Density Residential Planned Development with a maximum allowable density of 0.7 du/ac (L.7-PD).

Assuming buildout at the maximum allowable density for the foregoing land use designations, the southern portion of the project site designated as L.2-PD could be developed with nine low density residences, and the northern portion of the project site designated as L.7-PD could be developed with 12 low density residences, for a total of 21 residences across the entire project site. The currently proposed hotel and retail uses would not be developed under the Buildout Pursuant to BLHSP Alternative. When taking into account full buildout of the proposed project, which could

include the development of up to 814 residences, the Alternative would result in the development of 793 fewer residences than the proposed project.

Similar to the proposed project, it is assumed that the Buildout Pursuant to BLHSP Alternative would connect to public water, and thus, would require annexation into the El Dorado Irrigation District (EID) service area, which is subject to El Dorado Local Agency Formation Commission (LAFCo) approval. Unlike the currently proposed project, the proposed off-site sewer pipe connection would not be required under the Alternative; rather a septic sewer system would be sufficient to serve the needs of the reduced population associated with the Buildout Pursuant to BLHSP Alternative. The General Plan Amendment, BLHSP Amendment, and Rezone associated with the proposed project would not be required under the Buildout Pursuant to BLHSP Alternative.

A site plan has not been prepared for the Buildout Pursuant to BLHSP Alternative; thus, the extent to which the Alternative would incorporate existing on-site natural resources, provide trails on-site, or preserve the Lincoln Highway cannot be conclusively determined. However, because on-site ground disturbance would be limited to grading of house foundations and internal roads, and excavation of utility trenches, it is reasonable to assume that the Alternative could be designed with an emphasis on preserving and incorporating these features. Therefore, it is anticipated that the Alternative could meet Project Objectives 2 through 4. Because the Buildout Pursuant to BLHSP Alternative would include the development of only residential uses with generally uniform density, the Alternative would not meet the project objectives 1, 6, and 7. This Alternative would also not meet project objective 5 (Provide the opportunity for the development of a range of housing types and densities in proximity to U.S. Highway 50 (US 50) and other transportation corridors in the area), due to the low residential density under this Alternative.

Aesthetics

The Buildout Pursuant to BLHSP Alternative would convert the currently undeveloped project site to urban uses. While the Alternative would result in the development of approximately 793 fewer residential units than the proposed project, the Alternative would include residential development, as well as an off-site water main connection and the development of an on-site septic system, similar to the proposed project. Given that the project site is predominantly undeveloped and affords views of the surrounding natural landscape, comprised primarily of grassy hills, the existing visual character of the site would be significantly altered under the Buildout Pursuant to BLHSP Alternative. Therefore, similar to the proposed project, the Alternative would substantially degrade the existing visual character or quality of public views of the site and its surroundings, and Mitigation Measure 4.1-3, which requires the preparation and implementation of a final landscape plan, would still be required. However, the Buildout Pursuant to BLHSP Alternative would include the development of fewer residential units spread over a much larger area as compared to the proposed project. Because the 21 low-density residential units would be spread out over 60.5 acres, a large portion of the project site consisting of the intervening areas between residences would not be subject to substantial urban development and would remain similar to existing conditions. The Buildout Pursuant to BLHSP Alternative also would not include the development of five-story hotels, which would be more visually intrusive than the low-density residences included in the Buildout Pursuant to BLHSP Alternative. As such, the Alternative would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and unlike the proposed project, a less-than-significant impact would occur. Therefore, the significant and unavoidable impact related to Aesthetics identified for the proposed project would not occur under the Buildout Pursuant to BLHSP Alternative. Overall, impacts

related to Aesthetics would be fewer under the Buildout Pursuant to BLHSP Alternative as compared to the proposed project.

Air Quality, Greenhouse Gas Emissions, and Energy

The Buildout Pursuant to BLHSP Alternative would include the development of 793 fewer residential units than the proposed project, and thus, the disturbance footprint would be substantially reduced because only the home foundations and roads would require grading, rather than the entire project site. As such, the Alternative's potential to expose sensitive receptors to naturally occurring asbestos (NOA) during construction would be reduced as compared to the proposed project. Nonetheless, because disturbance of on-site soils involves the potential to encounter NOA, similar mitigation to Mitigation Measure 4.2-3, which requires geologic evaluations of the project site to determine the presence or absence of NOA, as well as the preparation of an Asbestos Dust Mitigation Plan if NOA should be discovered, would still be required.

The significant decrease in residential units associated with the Buildout Pursuant to BLHSP Alternative would result in an associated decrease in traffic, as well as fewer mobile and stationary emission sources. Thus, operation of the Buildout Pursuant to BLHSP Alternative would result in a smaller contribution of pollutant emissions than the proposed project. Due to the small scale of the development associated with the Buildout Pursuant to BLHSP Alternative, the Alternative is unlikely to exceed the EDCAQMD's thresholds of significance, would not conflict with the EDCAQMD's adopted attainment plans, and would not 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. Therefore, Mitigation Measures 4.2-2(a), 4.2-2(b), and 4.2-6, which require ROG emissions to be quantified and reduction measures to be identified, would not be required, and the significant and unavoidable impact related to air quality would not occur under the Buildout Pursuant to BLHSP Alternative. In addition, as discussed below, the Buildout Pursuant to BLHSP Alternative would result in a reduction of VMT as compared to the proposed project. Thus, the cumulatively considerable and significant and unavoidable impact related to the generation of GHGs 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 would not occur under the Buildout Pursuant to BLHSP Alternative. Overall, impacts related to Air Quality, GHG Emissions, and Energy under the Buildout Pursuant to BLHSP Alternative would be fewer as compared to the proposed project.

Biological Resources

Similar to the proposed project, the Buildout Pursuant to BLHSP Alternative would include ground-disturbing activities on the project site. Thus, the Alternative would have the potential to impact special-status plants, Crotch's bumble bee, vernal pool fairy shrimp, monarch butterfly, northwestern pond turtle, nesting birds and raptors, and roosting bats either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. As such, Mitigation Measures 4.3-1, 4.3-2, 4.3-3, 4.3-4, 4.3-6, 4.3-7, and 4.3-8, which require species-specific pre-construction surveys to be conducted, would still be required. However, because the Buildout Pursuant to BLHSP Alternative would include a smaller disturbance footprint than the proposed project, potential impacts to special-status plants and wildlife would be reduced as compared to the proposed project. In addition, because the Alternative would not include the development of an off-site sewer line, potential impacts to FYLF and Northern California ringtail would not occur, and Mitigation Measures 4.3-5 and 4.3-9 would not be required.

Because the Buildout Pursuant to BLHSP Alternative would not include the development of an off-site sewer line, impacts to arroyo willow riparian scrub would not occur, and the Alternative would not result in a substantial adverse effect on riparian habitat and/or other sensitive natural communities. Therefore, Mitigation Measure 4.3-10, which requires the project proponent to implement minimization and avoidance measures to minimize or compensate for impacts to riparian habitat, would not be required.

Although the exclusion of the off-site sewer improvement would result in the avoidance of some aquatic resources, because the Buildout Pursuant to BLHSP Alternative would still include development of the project site, as well as an off-site water main connection, the Alternative could have a substantial adverse effect on federal or State protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means, and Mitigation Measures 4.3-11(a) through 4.3-11(d), which require the project proponent to obtain applicable permits for disturbance of aquatic resources, would still be required. However, because the Buildout Pursuant to BLHSP Alternative would include a reduced disturbance footprint as compared to the proposed project, development of the Alternative could be designed to avoid disturbance of on-site aquatic resources; thus, potential impacts related to such would be reduced as compared to the proposed project.

The exclusion of the off-site sewer improvement would result in the avoidance of approximately two acres of oak woodland under the Buildout Pursuant to BLHSP Alternative. In addition, the Buildout Pursuant to BLHSP Alternative could be designed to avoid all on-site oak woodland. Therefore, the Alternative would not conflict with local policies and/or ordinances that protect biological resources, such as a tree preservation policy or ordinance, and Mitigation Measure 4.3-13, which requires mitigation for oak woodlands and individual oak trees impacted by project development, would not be required.

As the Buildout Pursuant to BLHSP Alternative would result in the conversion of a smaller amount of existing on- and off-site habitat to urban uses, other proposed and approved projects in the BLHSP area and El Dorado County would still result in a significant cumulative impact. However, the Alternative's contribution to the significant impact would be less than cumulatively considerable, as the Alternative would substantially reduce potential impacts to wildlife habitat and could completely avoid oak woodlands. Thus, the cumulatively considerable and significant and unavoidable impact identified for the proposed project related to the cumulative loss of habitat for special-status species and oak woodlands would not occur under the Buildout Pursuant to BLHSP Alternative. Mitigation similar to Mitigation Measure 4.3-14 would still be required.

Overall, impacts to Biological Resources would be fewer under the Buildout Pursuant to BLHSP Alternative as compared to the proposed project.

Cultural Resources

While the Buildout Pursuant to BLHSP Alternative would result in the development of 793 fewer residential units than the proposed project, the Alternative would still result in the disturbance of the project site. However, the Buildout Pursuant to BLHSP Alternative would include a smaller disturbance footprint than the proposed project. As such, the Alternative's potential to cause a substantial adverse change in the significance of a unique archaeological resource or disturb human remains, including those interred outside of dedicated cemeteries, would be reduced as compared to the proposed project. Nonetheless, because ground disturbance would still occur under the Alternative, Mitigation Measures 4.4-2(a) through 4.4-2(c) and 4.4-3, which require

appropriate measures should cultural resources be discovered on-site, would still be required. Because the Buildout Pursuant to BLHSP Alternative would include a reduced disturbance footprint as compared to the proposed project, development of the Alternative could be designed to avoid encroaching upon the on-site portions of the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway. Therefore, Mitigation Measures 4.4-1(a) and 4.4-1(b), which require the identification of on-site cultural resources and minimization of potential impacts, would not be required, and the significant and unavoidable impact related to the foregoing cultural resource would not occur under the Alternative. In addition, because the Buildout Pursuant to BLHSP Alternative would not include any off-site sewer improvements, potential impacts to the Old Bass Lake Road (Lincoln Highway) would not occur, and Mitigation Measures 4.4-1(c) and 4.4-1(d) would not be required. Overall, potential impacts related to Cultural Resources under the Buildout Pursuant to BLHSP Alternative would be fewer as compared to the proposed project.

Geology and Soils

As noted above, in addition to excluding the off-site sewer improvement, the Buildout Pursuant to BLHSP Alternative would include a smaller area of disturbance as compared to the proposed project. Consequently, the potential for the Alternative to result in substantial soil erosion or the loss of topsoil, as well as impacts related to being 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, would be reduced as compared to the proposed project. Nonetheless, because the Alternative would still include on- and off-site ground disturbance, Mitigation Measure 4.5-2, which requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP), and Mitigation Measure 4.5-3, which requires the recommendations of the project-specific Preliminary Geotechnical Engineering Study to be implemented in improvement plans, would still be required. Overall, impacts related to Geology and Soils under the Buildout Pursuant to BLHSP Alternative would be fewer than the proposed project.

Hazards and Hazardous Materials

The overall disturbance area for the Buildout Pursuant to BLHSP Alternative would be reduced as compared to the proposed project. Thus, development of the Alternative could be designed to avoid the two wells within the Program Study Area and Mitigation Measure 4.6-2(c) would not be required. Because disturbance of on-site soils involves the potential to encounter NOA, similar mitigation to Mitigation Measure 4.2-3, which requires geologic evaluations of the project site to determine the presence or absence of NOA, as well as the preparation of an Asbestos Dust Mitigation Plan if NOA should be discovered, would still be required. In addition, although the Buildout Pursuant to BLHSP Alternative would not include the off-site sewer improvements, potential Recognized Environmental Conditions (RECs) were identified related to the off-site water line improvements. Thus, similar to the proposed project, the Buildout Pursuant to BLHSP Alternative could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. As such, Mitigation Measures 4.6-2(a) and 4.6-2(b), which require the preparation and submittal of a Phase I Environmental Site Assessment (ESA) of the off-site improvement areas and requires the project applicant complete any necessary remediation activities prior to initiation of ground-disturbing activities, would still be required under the Alternative. Overall, impacts related to Hazards and Hazardous Materials under the Buildout Pursuant to BLHSP Alternative would be fewer as compared to the proposed project.

Hydrology and Water Quality

Given that the Buildout Pursuant to BLHSP Alternative would include a reduced disturbance footprint as compared to the proposed project, the potential for the Alternative to result in construction and operational impacts related to water quality would be reduced as compared to the proposed project. Nonetheless, because the Alternative would still include ground-disturbing activities of land one acre in size or more, the Alternative would still be subject to the Construction General Permit and Mitigation Measure 4.7-1, which requires the preparation and implementation of a SWPPP, and Mitigation Measures 4.7-2(a) through 4.7-2(e), which require the preparation and implementation of a detailed Best Management Practice (BMP) and water quality maintenance plan and the project applicant to obtain applicable permits related to on-site water and wastewater infrastructure improvements, would still be required. Because the Alternative would include the development of 793 fewer residences than the proposed project, and would not include any commercial development, the amount of impervious surface created by the Buildout Pursuant to BLHSP Alternative would be reduced as compared to the proposed project. Nonetheless, similar to the proposed project, the Alternative could 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. Therefore, implementation of Mitigation Measures 4.7-4(a) and 4.7-4(b), which require implementation of Mitigation Measures 4.7-2(a) and 4.7-2(e), respectively, as described above, would still be required. Overall, because the Alternative would include a smaller disturbance footprint than the proposed project and would result in the creation of fewer impervious surfaces, impacts related to Hydrology and Water Quality under the Buildout Pursuant to BLHSP Alternative would be fewer than the proposed project.

Noise

Operational noise associated with the proposed project would consist of on-site vehicle noise, parking area noise, on-site delivery truck circulation and activity noise, heating, ventilation, and air-conditioning (HVAC) unit noise, and crowd and amplified noise associated with the Event Center/Museum. The Buildout Pursuant to BLHSP Alternative would only include the development of residential uses, which are not considered to be substantial sources of noise generation. Therefore, the Alternative would not be anticipated to result in the generation of a substantial permanent increase in ambient noise levels associated with the operations in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and Mitigation Measures 4.9-2(a) and 4.9-2(b), which prohibit on-site truck circulation during nighttime hours and require Event Center/Museum noise to comply with applicable noise standards, would not be required. Additionally, the significant and unavoidable noise impact associated with full buildout of the proposed project would not occur, and Mitigation Measure 4.9-3, which requires a noise study to be prepared to address operational noise associated with full buildout of the proposed project, would not be required. Overall, impacts related to Noise under the Buildout Pursuant to BLHSP Alternative would be fewer than the proposed project.

Transportation

Similar to the proposed project, the Buildout Pursuant to BLHSP Alternative would add construction vehicle traffic to area roadways, thereby potentially interfering with existing roadway operations during the construction phase. As such, Mitigation Measure 4.11-1 related to

preparation and implementation of a construction signing and traffic control plan would still be required under the Alternative. Because the Alternative would include the construction of 793 fewer residential units than the proposed project, the disturbance footprint would be reduced as compared to the proposed project. Thus, the overall intensity of construction traffic would be reduced as compared to the proposed project.

As discussed above, the proposed project would result in a significant and unavoidable impact related to a conflict with CEQA Guidelines Section 15064.3, subdivision (b) (related to VMT) and would cumulatively conflict with CEQA Guidelines Section 15064.3, subdivision (b). The Buildout Pursuant to BLHSP Alternative would include the development of 793 fewer residential units than the proposed project, which would result in fewer vehicle trips under the Alternative as compared to the proposed project, and, thus, a reduction in total VMT. However, because the Buildout Pursuant to BLHSP Alternative would involve development of the same project site as the proposed project, future residents would be anticipated to travel a similar distance under both scenarios. Therefore, the Buildout Pursuant to BLHSP Alternative would not result in a reduction in VMT per capita as compared to the proposed project. As such, even with implementation of Mitigation Measure 4.11-3, which requires the implementation of California Air Pollution Officers Association (CAPCOA) VMT reduction strategies, a significant and unavoidable impact would occur. Overall, impacts related to Transportation under the Buildout Pursuant to BLHSP Alternative would be fewer than the proposed project.

Tribal Cultural Resources

As noted above, because the Buildout Pursuant to BLHSP Alternative would include the development of 793 fewer residential units than the proposed project and would not include off-site sewer improvements, the Alternative would result in a smaller disturbance area than the proposed project. Thus, the potential for the Buildout Pursuant to BLHSP Alternative to result in disturbance or destruction of tribal cultural resources would be reduced as compared to the proposed project. Nonetheless, because the Buildout Pursuant to BLHSP Alternative would still involve ground-disturbing activities that could result in impacts to previously unknown tribal cultural resources, Mitigation Measures 4.12-1(a) through 4.12-1(e), which include guidance for tribal monitoring during on-site construction activities and procedures in the case that tribal cultural resources are encountered, would still be required under the Alternative. Overall, impacts related to Tribal Cultural Resources under the Buildout Pursuant to BLHSP Alternative would be fewer than the proposed project.

Wildfire

As discussed above, the disturbance area under the Buildout Pursuant to BLHSP Alternative would reduced as compared to the proposed project. Nonetheless, the Alternative would be subject to the same fire risk related to construction activities, specifically the potential use of equipment without spark arrestors. Because development of the Buildout Pursuant to BLHSP Alternative would result in a greater amount of the project site remaining in its current state than the proposed project, a greater amount of vegetation that could act as fuel for potential wildfires would remain on-site. Wildfire risks during operation due to existing on-site fuel sources and prevailing winds would consequently increase under the Alternative as compared to the proposed project. Therefore, Mitigation Measure 4.14-2, which requires the project applicant to submit a Vegetation Management Plan (VMP), would still be required. Overall, the impacts identified for the proposed project related to Wildfire could be greater under the Buildout Pursuant to BLHSP Alternative.

Higher Density Alternative

As noted above, the proposed project would result in significant and unavoidable impacts, including those related to GHG emissions and VMT. In their *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (CAPCOA Handbook),[1] CAPCOA sets forth VMT reduction strategies where the effectiveness of the strategies is supported by substantial evidence. Potential CAPCOA VMT reduction strategies are relevant to a project's location and land use context. It should be noted that most of the CAPCOA VMT reduction strategies also reduce GHG emissions and criteria pollutants, considered co-benefits, by reducing the source metric of VMT (i.e., vehicle ownership, number of vehicle trips, and trip distance). As such, implementation of CAPCOA strategies has the potential to reduce a project's significant impacts related to both GHG emissions and VMT. The CAPCOA strategy applied for the purposes of this chapter is Strategy T-1, Increase Residential Density.

As discussed in Chapter 4.11, Transportation, of this EIR, operations associated with the Project Development Area would result in VMT generation below the appropriate significance thresholds, and, thus, the residential and commercial uses in the Project Development Area would result in a less-than-significant impact related to VMT. Therefore, the Higher Density Alternative does not include any alterations to the Project Development Area. However, under full Project Buildout at 2040 horizon year conditions, while the prospective retail uses within the Program Study Area would not result in a significant impact related to VMT, the dwelling units constructed as part of the Program Study Area would generate a household VMT per resident that would exceed the applicable threshold of significance. Even with the implementation of Mitigation Measure 4.11-3, the impact was determined to be significant and unavoidable. Therefore, the Higher Density Alternative has been designed to address the significant and unavoidable impact related to the prospective residential uses within the Program Study Area.

Under the Higher Density Alternative, buildout of the Project Development Area of the project site would be the same as the proposed project and would include development of two hotels, retail services, two restaurants, a museum, an event center, associated parking, 56 residential cottages for employee housing, and an additional 56 residential cottages. Similar to the proposed project, the Alternative would require approval of a General Plan Amendment, BLHSP Amendments, Rezone, and Tentative Subdivision Map, as well as a potential conditional use permit and other responsible agency approvals. Additionally, this Alternative would require the same off-site water and sewer improvements as the proposed project, and similar to the proposed project, could construct an interim septic system to serve the Project Development Area until such time that future development proceeds within the Program Study Area, at which point the project would need to connect to public sewer.

Consistent with the proposed project, the Higher Density Alternative would also include the development of approximately 90,000 square feet of commercial uses within the Program Study Area; however, residential buildout of the Program Study Area under the Alternative would result in additional units as compared to the proposed project.

Table 6-1 presents a summary of the potential residential buildout of the Program Study Area under the proposed project and the Higher Density Alternative. As shown therein, future development of the Program Study Area under the proposed project could include up to 702 multi-family residential units within the portions designated as Multi-Family Residential (MFR) and

[1] California Air Pollution Control Officers Association. *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. December 2021.

Commercial (C). Under the Higher Density Alternative, the Program Study Area's MFR- and C-designated portions would be developed with 810 multi-family residential units, equal to a density of 30 du/ac. As established by El Dorado County Housing Element Measure HO-40, 30 du/ac is the maximum allowable residential density in multi-family residential land use designations. Thus, the Higher Density Alternative would include 108 additional residential units beyond what is currently anticipated within the Program Study Area for the proposed project, representing a net total of 922 residential units across the entire project site under the Alternative.

Table 6-1
Program Study Area Residential Land Use Comparison – Higher Density Alternative

		Proposed Project		Alternative	
Land Use	Acres	Dwelling Units	Density Range	Dwelling Units	Density Range
Multi-Family Residential	15.1	352	12 – 24 du/ac	810	30 du/ac
Commercial	11.9	350	22 – 30 du/ac		
Total	**27**	**702**	**--**	**810**	**--**

Because development of the Project Development Area under the Higher Density Alternative would be the same as the proposed project, all project objectives would be met by the Higher Density Alternative. In addition, because the Alternative would include the development of 108 more residential units within the Program Study Area than what is currently anticipated under the proposed project, the Alternative would further address Project Objective 1 by fulfilling goals of the El Dorado County General Plan through the provision of additional housing stock.

Aesthetics

The Higher Density Alternaitve would result in the development of 108 more residential units within the Program Study Area than is anticipated under the proposed project. All other components included as part of the proposed project would remain the same under the Higher Density Alternative. Given that the project site is predominantly undeveloped and affords views of the surrounding grassy hills and other natural landscape, similar to the proposed project, the existing visual character of the site would be significantly altered under the Higher Density Alternative. Mitigation Measure 4.1-3, which requires the preparation and implementation of a final landscaping plan, would still be required. Given that buildout of the Program Study Area under both the Alternative and proposed project would include commercial and residential uses, similar to the proposed project, even with the implementation of mitigation, the project-specific and cumulative impacts related to substantial degradation of the existing visual character or quality of public views of the site would remain significant and unavoidable. Because the Alternative includes an increase of 108 residential units relative to the proposed project, buildout of the Alternative could be more visually intrusive than the proposed project, but would not result in a substantial increase in the severity of the impact to the existing visual character and quality of public views of the site. Therefore, impacts related to Aesthetics under the Higher Density Alternative could be greater than the proposed project.

Air Quality, Greenhouse Gas Emissions, and Energy

Because the Higher Density Alternative would include the same development footprint as the proposed project, the Alternative's potential to expose sensitive receptors to NOA during construction would be the same as the proposed project. Therefore, implementation of Mitigation Measure 4.2-3 would still be required to reduce said impact to a less-than-significant level.

Because the Higher Density Alternative would include the development of up to 108 more residential units that what is anticipated under the proposed project, the Alternative would result in an increase in project-generated traffic or mobile and stationary emission sources as compared to the proposed project. As such, operation of the Higher Density Alternative would result in a greater contribution of pollutant emissions as compared to the proposed project. Thus, similar to the proposed project, even with implementation of Mitigation Measures 4.2-2(a) and 4.2-2(b), which require ROG emissions to be quantified and reduction measures to be identified, the Higher Density Alternative would exceed the EDCAQMD's thresholds of significance, conflict with the EDCAQMD's adopted attainment plans, and would 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. Therefore, impacts related to such would remain significant and unavoidable under the Higher Density Alternative.

As discussed below, VMT generation associated with the Higher Density Alternative would be reduced as compared to the proposed project. As such, the Alternative would result in an associated reduction in GHG emissions. Using the GHG Reduction Formula provided in the CAPCOA Handbook, the Higher Density Alternative could result in a 50.5 percent reduction in GHG emissions.[2] However, the maximum allowable reduction pursuant to the CAPCOA Handbook for Strategy T-1 is 30 percent; thus, the Higher Density Alternative would be considered to result in a 30 percent reduction in GHG emissions. Although the Alternative would reduce emissions of GHG, impacts related to GHG emissions are based on compliance with the Sacramento Metropolitan Air Quality Management District's (SMAQMD) BMPs. Mitigation Measures 4.2-7(a) and (b) would still be required under the Alternative in order to ensure compliance with SMAQMD's BMP-1 and BMP-2 related to natural gas usage and electric vehicle parking spaces, respectively. As discussed in further detail below, the Higher Density Alternative would result in reduced VMT such that the significant and unavoidable impact related to VMT would be avoided and Mitigation Measure 4.11-3 would not be required. Therefore, the Alternative would comply with SMAQMD BMP-3, Mitigation Measure 4.2-7(c) would not be required, and the cumulatively considerable and significant and unavoidable impact related to the generation of GHGs 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 would not occur under the Higher Density Alternative.

Based on the above, although the Higher Density Alternative would result in a greater contribution of criteria pollutant emissions as compared to the proposed project, and, thus, would result in an increase in the severity of the related significant and unavoidable impacts, the Alternative would avoid the significant and unavoidable impact related to GHG emissions. By increasing the severity of significant and unavoidable impacts (i.e., project-level and cumulative criteria pollutants) while avoiding another (i.e., GHG), the overall impacts related to air quality and GHG emissions would balance to some degree. However, for comparative analysis purposes of this EIR, simply focusing on the total number of significant impacts shows that this Alternative would result in fewer significant air quality/GHG related impacts than the proposed project. Thus, the overall impacts related to Air Quality, GHG Emissions, and Energy under the Higher Density Alternative would be considered fewer than the proposed project.

[2] ([Residential density of project development (30 du/ac) – Residential density of typical development (9.1 du/ac)] / Residential density of typical development (9.1 du/ac)]) x Elasticity of VMT with respect to residential density (-0.22) = -0.505 (50.5 percent GHG reduction).

Biological Resources

Similar to the proposed project, the Higher Density Alternative would include ground-disturbing activities on the project site, and would have the same development footprint as the proposed project. Thus, the Alternative would have the potential to impact special-status plants, Crotch's bumble bee, vernal pool fairy shrimp, monarch butterfly, northwestern pond turtle, nesting birds and raptors, and roosting bats either directly (e.g., cause a wildlife population to drop below self-sustaining levels, threaten to eliminate an animal community) or through substantial habitat modifications. In addition, the Alternative could result in a substantial adverse effect on riparian habitat and/or other sensitive natural communities, or have a substantial adverse effect on federal or State protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Similar to the proposed project, because the Higher Density Alternative would also involve the removal of trees, the Alternative could conflict with local policies and/or ordinances that protect biological resources, such as a tree preservation policy or ordinance. As such, Mitigation Measures 4.3-1, 4.3-2, 4.3-3, 4.3-4, 4.3-5, 4.3-6, 4.3-7, 4.3-8, and 4.3-9, which require species-specific pre-construction surveys to be conducted, as well as Mitigation Measure 4.3-10, which requires the project proponent to implement minimization and avoidance measures to minimize or compensate for impacts to riparian habitat, and Mitigation Measures 4.3-11(a) through 4.3-11(d), which require the project proponent to obtain applicable permits for disturbance of aquatic resources, would still be required. Similarly, Mitigation Measure 4.3-13, which requires avoidance, minimization, and compensation related to the removal of on- and off-site trees, would still be required under the Alternative. Development of the Higher Density Alternative, in combination with other proposed and approved projects in the BLHSP area and El Dorado County, would result in a cumulatively considerable loss of wildlife habitat and oak woodlands. Therefore, the cumulatively considerable and significant and unavoidable impact related to the cumulative loss of habitat for special-status species and oak woodlands would still occur under the Higher Density Alternative, and Mitigation Measure 4.3-14 would still be required. Based on the above, overall impacts to Biological Resources would be similar under the Higher Density Alternative as compared to the proposed project.

Cultural Resources

While the Higher Density Alternative would include the development of additional residential units within the Program Study Area of the project site, all other components would be the same under the Alternative, and the overall development footprint would not change. As such, the Alternative's potential to cause a substantial adverse change in the significance of a unique archaeological resource or disturb human remains, including those interred outside of dedicated cemeteries, would be the same as the proposed project, and Mitigation Measures 4.4-2(a) through 4.4-2(c) and 4.4-3, which require appropriate measures should cultural resources be discovered on-site, would still be required. In addition, the Higher Density Alternative would still have the potential to encroach upon the Sacramento-Placerville Road, Mormon Hill Road-Lincoln Highway; even with the implementation of Mitigation Measures 4.4-1(a) and 4.4-1(b), which require the identification of on-site cultural resources and minimization of potential impacts, impacts to the foregoing cultural resource would be significant and unavoidable. Mitigation Measures 4.4-1(c) and 4.4-1(d), which require the off-site sewer line to avoid the historic macadam surface along the Old Bass Lake Road (Lincoln Highway), would still be required to reduce potential impacts to the aforementioned cultural resource to a less-than-significant level. Overall, potential impacts related to Cultural Resources under the Higher Density Alternative would be similar to the proposed project.

Geology and Soils

As noted above, the Higher Density Alternative would include the same overall area of disturbance as the proposed project. Consequently, the potential for the Alternative to result in substantial soil erosion or the loss of topsoil, as well as impacts related to being 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, would be similar to the proposed project. As such, Mitigation Measure 4.5-2, which requires the preparation of a SWPPP, and Mitigation Measure 4.5-3, which requires the recommendations of the project-specific Preliminary Geotechnical Engineering Study to be implemented in improvement plans, would still be required. Overall, impacts related to Geology and Soils under the Higher Density Alternative would be similar to the proposed project.

Hazards and Hazardous Materials

Because the overall disturbance area for the Higher Density Alternative would be the same as the proposed project, all RECs identified on the project site, as well as potential RECs associated with the proposed off-site utility improvements, would still occur under the Alternative. Thus, similar to the proposed project, the Higher Density Alternative could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. As such, Mitigation Measures 4.6-2(a) and 4.6-2(b), which require the preparation and submittal of a Phase I ESA of the off-site improvement areas and requires the project applicant complete any necessary remediation activities prior to initiation of ground-disturbing activities, would still be required under the Alternative. In addition, Mitigation Measure 4.6-2(c), which requires the project applicant to properly abandon the on-site well, would also still be required under the Higher Density Alternative. Overall, impacts related to Hazards and Hazardous Materials under the Higher Density Alternative would be similar to the proposed project.

Hydrology and Water Quality

Given that the Higher Density Alternative would include the same overall area of disturbance compared to the proposed project, the potential for the Alternative to result in construction and operational impacts related to water quality would be similar to the proposed project. As such, Mitigation Measure 4.7-1, which requires the preparation and implementation of a SWPPP, and Mitigation Measures 4.7-2(a) through 4.7-2(e), which require the preparation and implementation of a detailed BMP and water quality maintenance plan and requires the project applicant to obtain applicable permits related to on-site water and wastewater infrastructure improvements, would still be required. Because the overall area of disturbance under the Higher Density Alternative would be the same as the proposed project, the Alternative would result in similar alterations to the existing drainage pattern of the site as compared to the proposed project. Therefore, implementation of Mitigation Measures 4.7-4(a) and 4.7-4(b), which require implementation of Mitigation Measures 4.7-2(a) and 4.7-2(e), respectively, as described above, would still be required. Overall, impacts related to Hydrology and Water Quality under the Higher Density Alternative would be similar to the proposed project.

Noise

Similar to the proposed project, operational noise associated with buildout of the Project Development Area under the Higher Density Alternative would consist of on-site vehicle noise, parking area noise, on-site delivery truck circulation and activity noise, HVAC unit noise, and crowd and amplified noise associated with the Event Center/Museum. Therefore, the Alternative

could result in the generation of a substantial permanent increase in ambient noise levels associated with the operations in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and Mitigation Measures 4.9-2(a) and 4.9-2(b), which prohibit on-site truck circulation during nighttime hours and require Event Center/Museum noise to comply with applicable noise standards, would still be required.

Because the Higher Density Alternative would include the development of commercial uses in the Program Study Area, operational noise associated with the foregoing uses would be similar to the proposed project. However, due to the increased residential density, the Higher Density Alternative would generate more traffic noise on internal and surrounding roadways. Because the actual noise generation associated with operation of the Higher Density Alternative cannot be determined, Mitigation Measure 4.9-3, which requires a noise study to be prepared to address operational noise associated with full buildout of the proposed project, would still be required, and the noise impact would remain significant and unavoidable. Overall, impacts related to Noise under the Higher Density Alternative would be similar the proposed project.

Transportation

Construction of the Higher Density Alternative would be similar to the proposed project, and the Alternative would add construction vehicle traffic to area roadways, thereby potentially interfering with existing roadway operations during the construction phase. As such, Mitigation Measure 4.11-1 related to preparation and implementation of a construction signing and traffic control plan would still be required under the Alternative.

As discussed in Chapter 4.11, Transportation, of this EIR, under the proposed project, the residential development within the Program Study Area would generate 22.9 VMT per resident, which exceeds the El Dorado County baseline average of 18.8 VMT per resident. Even with implementation of Measure 4.11-3, which requires the implementation of CAPCOA VMT reduction strategies, the impact would remain significant and unavoidable. The residential development within the Program Study Area under the Higher Density Alternative would increase to the maximum allowable density of 30 du/ac. According to the CAPCOA Handbook, for Strategy T-1, the percent reduction in VMT would be the same as the percent reduction in GHG emissions. As stated above, using the GHG Reduction Formula provided in the CAPCOA Handbook for Strategy T-1, the Higher Density Alternative could result in a 50.5 percent reduction in GHG emissions; however, the maximum allowable reduction pursuant to the CAPCOA Handbook for Strategy T-1 is 30 percent. Thus, consistent with the CAPCOA Handbook, because the VMT reduction would be the same as the GHG emissions reduction, the Higher Density Alternative would be considered to result in a maximum VMT reduction of 30 percent. A 30 percent reduction in VMT would reduce the project's estimated 22.9 VMT per resident to 16.03 VMT per resident (22.9 x 0.30 = 6.87; 22.9 – 6.87 = 16.03 VMT per resident), which would be below the El Dorado County baseline average of 18.8 VMT per resident. Therefore, implementation of Mitigation Measure 4.11-3 would not be required, and the significant and unavoidable impact related to a conflict with CEQA Guidelines Section 15064.3, subdivision (b) would not occur under the Higher Density Alternative. Overall, impacts related to Transportation under the Higher Density Alternative would be fewer as compared to the proposed project.

Tribal Cultural Resources

As noted above, the Higher Density Alternative would include the same disturbance area as the proposed project. Thus, the potential for the Higher Density Alternative to result in disturbance or destruction of tribal cultural resources would be similar to the proposed project. Consequently,

Mitigation Measures 4.12-1(a) through 4.12-1(e), which include guidance for tribal monitoring during on-site construction activities and procedures in the case that tribal cultural resources are encountered, would still be required under the Alternative. Overall, impacts related to Tribal Cultural Resources under the Higher Density Alternative would be similar to the proposed project.

Wildfire

As discussed above, the disturbance area under the Higher Density Alternative would be the same as under the proposed project. As such, the Alternative would be subject to the same fire risk related to construction activities, specifically the potential use of equipment without spark arrestors, as well as wildfire risks during operation due to existing on-site fuel sources and prevailing winds. Therefore, Mitigation Measure 4.14-2, which requires the project applicant to submit a VMP, would still be required. Overall, the impacts identified for the proposed project related to Wildfire would be similar under Higher Density Alternative.

6.4 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 County. 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 project site is assumed to remain in its current condition under the alternative. Consequently, none of the impacts resulting from the proposed project would occur under the Alternative, as shown in Table 6-2 below. However, the No Project (No Build) Alternative would not meet any of the project objectives.

With respect to the Buildout Pursuant to BLHSP Alternative, because on-site ground disturbance would be limited to grading of house foundations and internal roads, and excavation of utility trenches, it is reasonable to assume that the Alternative could be designed with an emphasis on preserving and incorporating these features; thus, meeting Project Objectives 2 through 4. Because the Buildout Pursuant to BLHSP Alternative would include the development of only residential uses with generally uniform density, the Alternative would not meet the remaining project objectives.

With respect to the Higher Density Alternative, because development of the Project Development Area under the Higher Density Alternative would be the same as the proposed project, and because the Alternative would provide additional variety of the housing types and densities within the project site, all project objectives would be met by the Higher Density Alternative.

As discussed throughout this chapter and shown in Table 6-2, the Buildout Pursuant to BLHSP Alternative could result in a greater impact related to Wildfire and fewer impacts related to the remaining issue areas for which significant project impacts were identified. Moreover, under the Buildout Pursuant to BLHSP Alternative, the significant and unavoidable impacts identified for the proposed project related to Aesthetics; Air Quality, GHG Emissions, and Energy; Biological Resources; Cultural Resources; and Noise would not occur. The Buildout Pursuant to BLHSP Alternative would not avoid the significant and unavoidable impact related to Transportation (i.e.,

VMT). The Higher Density Alternative would result in two fewer impacts than the proposed project related to Transportation (i.e., VMT) and Air Quality, GHG Emissions, and Energy (i.e., GHG), greater impacts related to Aesthetics, and similar impacts related to the remaining issue areas for which project impacts were identified. Although the significant and unavoidable GHG impact and the significant and unavoidable Transportation (VMT) impact would not occur under the Higher Density Alternative, the Alternative would not avoid the remaining significant and unavoidable impacts related to Aesthetics; Air Quality (criteria pollutant emissions); Biological Resources; Cultural Resources; and Noise.

In conclusion, of the “build” alternatives, the Buildout Pursuant to BLHSP Alternative would result in the greatest reduction in the number of significant project impacts. However, the Buildout Pursuant to BLHSP Alternative would be considered a version of the No Project Alternative, and, thus, should not be considered in the selection of the Environmentally Superior Alternative. Of the “build” alternatives considered in this EIR, the Higher Density Alternative would be considered the Environmentally Superior Alternative.

Table 6-2
Comparison of Environmental Impacts for Project Alternatives

Resource Area	Proposed Project	No Project (No Build) Alternative	Buildout Pursuant to BLHSP Alternative	Higher Density Alternative
Aesthetics	Less-Than-Significant with Mitigation and Significant and Unavoidable	None	Fewer	Greater*
Air Quality, Greenhouse Gas Emissions, and Energy	Less-Than-Significant with Mitigation and Significant and Unavoidable	None	Fewer	Fewer*
Biological Resources	Less-Than-Significant with Mitigation and Significant and Unavoidable	None	Fewer	Similar*
Cultural Resources	Less-Than-Significant with Mitigation and Significant and Unavoidable	None	Fewer	Similar*
Geology and Soils	Less-Than-Significant with Mitigation	None	Fewer	Similar
Hazards and Hazardous Materials	Less-Than-Significant with Mitigation	None	Fewer	Similar
Hydrology and Water Quality	Less-Than-Significant with Mitigation	None	Fewer	Similar
Noise	Less-Than-Significant with Mitigation and Significant and Unavoidable	None	Fewer	Similar*
Transportation	Less-Than-Significant with Mitigation and Significant and Unavoidable	None	Fewer*	Fewer
Tribal Cultural Resources	Less-Than-Significant with Mitigation	None	Fewer	Similar
Wildfire	Less-Than-Significant with Mitigation	None	Greater	Similar
	Total Greater:	**0**	**1**	**1**
	Total Fewer:	**11**	**10**	**2**
	Total Similar:	**0**	**0**	**8**

Note: No Impact = "None;" Greater than the Proposed Project = "Greater," Less than Proposed Project = "Fewer;" and Similar to Proposed Project = "Similar"

* Significant and Unavoidable impact(s) determined for the proposed project would still be expected to occur under the Alternative.

7. REFERENCES

7. REFERENCES

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