

ASCENT

DRAFT EIR

Generations at Green Valley Project

State Clearinghouse No. 2024040463

Prepared for:



County of El Dorado

June 2024

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TABLE OF CONTENTS

Section	Page
LIST OF ABBREVIATIONS	vi
EXECUTIVE SUMMARY	ES-1
ES.1 Introduction.....	ES-1
ES.2 Summary Description of the Project.....	ES-1
ES.3 Environmental Impacts and Recommended Mitigation Measures.....	ES-5
ES.4 Alternatives to the Proposed Project.....	ES-5
ES.5 Areas of Controversy.....	ES-6
ES.6 Issues to be Resolved.....	ES-6
1 INTRODUCTION.....	1-1
1.1 Project Requiring Environmental Analysis	1-1
1.2 Purpose and Intended Uses of This Draft EIR.....	1-1
1.3 Scope of This Draft EIR	1-2
1.4 Agency Roles and Responsibilities	1-2
1.5 CEQA Public Review Process	1-3
1.6 Draft EIR Organization.....	1-3
1.7 Standard Terminology.....	1-4
2 PROJECT DESCRIPTION.....	2-1
2.1 Project Overview.....	2-1
2.2 Project Location and Setting	2-1
2.3 Project Background	2-1
2.4 Project Objectives.....	2-5
2.5 Proposed Project Characteristics	2-5
2.6 Wildland Urban Interface Fire Protection Plan.....	2-25
2.7 Construction Activities and Phasing	2-26
2.8 Potential Permits and Approvals Required.....	2-33
3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES	3-1
3.1 Aesthetics	3.1-1
3.2 Air Quality	3.2-1
3.3 Archaeological and Historical Cultural Resources	3.3-1
3.4 Biological Resources.....	3.4-1
3.5 Energy.....	3.5-1
3.6 Geology, Soils, and Paleontological Resources	3.6-1
3.7 Greenhouse Gas Emissions and Climate Change.....	3.7-1
3.8 Hazards and Hazardous Materials	3.8-1
3.9 Hydrology and Water Quality	3.9-1
3.10 Land Use, Planning, and Agriculture and Forestry Resources	3.10-1
3.11 Noise and Vibration.....	3.11-1
3.12 Population and Housing	3.12-1
3.13 Public Services and Recreation.....	3.13-1
3.14 Transportation.....	3.14-1
3.15 Utilities and Service Systems	3.15-1
3.16 Tribal Cultural Resources	3.16-1
3.17 Wildfire and Evacuation	3.17-1

4	CUMULATIVE IMPACTS	4-1
4.1	Introduction to the Cumulative Analysis.....	4-1
4.2	Cumulative Impact Analysis Methodology.....	4-1
4.3	Cumulative Setting.....	4-2
4.4	Analysis of Cumulative Impacts.....	4-4
5	ALTERNATIVES	5-1
5.1	Introduction.....	5-1
5.2	Considerations for Selection of Alternatives.....	5-2
5.3	Alternatives Considered but Not Evaluated Further	5-5
5.4	Alternatives Selected for Detailed Analysis	5-6
5.5	Environmentally Superior Alternative.....	5-28
6	OTHER CEQA SECTIONS	6-1
6.1	Growth Inducement.....	6-1
6.2	Significant and Unavoidable Adverse Impacts.....	6-3
6.3	Significant and Irreversible Environmental Changes.....	6-3
7	REPORT PREPARERS	7-1
8	REFERENCES	8-1

Appendices

Appendix A – Notice of Preparation and Comments

Appendix B – Air Quality, Energy, and Greenhouse Gas Modeling Data

Appendix C – Biological Resource Reports for Generations at Green Valley

Appendix D – Septic Feasibility Study

Appendix E – Phase I Environmental Site Assessment

Appendix F – Storm Drainage Evaluation

Appendix G – Policy and Regulation Consistency Analysis

Appendix H – Noise Modeling Data

Appendix I – Vehicle Miles Traveled Analysis

Appendix J – WUI Fire Protection Plan

Figures

Figure 2-1	Project Location.....	2-2
Figure 2-2	Existing General Plan Land Use Designations	2-3
Figure 2-3	Existing Zoning.....	2-4
Figure 2-4	Project Proposed General Plan Land Use Designations	2-6
Figure 2-5	Project Proposed Zoning.....	2-7
Figure 2-6	Proposed Tentative Subdivision.....	2-9
Figure 2-7	Proposed Site Plan – Age Restricted Uses.....	2-11
Figure 2-8a	Proposed Green Valley Road Intersection Improvements With C-Drive	2-13
Figure 2-8b	Proposed Green Valley Road Intersection Improvements With A-Drive	2-15
Figure 2-9a	Proposed Grading and Drainage Improvements – Northern Portion of Site	2-19
Figure 2-9b	Proposed Grading and Drainage Improvements – Southern Portion of Site	2-21

Figure 2-10	Proposed Off-Site Water and Wastewater Improvements	2-23
Figure 2-11	On-Site Water and Wastewater Improvements.....	2-27
Figure 2-12	Off-Site Alternative Wastewater Alignment.....	2-29
Figure 2-13	Proposed Oak Tree Preservation Plan	2-31
Figure 3.1-1	Public Viewpoints of Project Site along Green Valley Road	3.1-4
Figure 3.1-2	View of Project Site from Viewpoint 1, along Green Valley Road at Malcom Dixon Road Looking South	3.1-5
Figure 3.1-3	View of Project Site from Viewpoint 2, along Green Valley Road, Looking Southeast.....	3.1-5
Figure 3.1-4	View of Project Site from Viewpoint 3, at end of Lima Way, Looking East.....	3.1-6
Figure 3.1-5	View of Existing Residential Areas at the Intersection of Aberdeen Lane/Lima Way West of the Project Site	3.1-7
Figure 3.1-6	Line of Sight Analysis from Green Valley Road Public Views	3.1-10
Figure 3.4-1	Terrestrial and Aquatic Land Cover on the Project Site	3.4-9
Figure 3.4-2	Terrestrial and Aquatic Land Cover on the Off-Site Improvement Area along Silva Valley Parkway.....	3.4-11
Figure 3.4-3	Essential Connectivity Areas in the Vicinity of the Project Site.....	3.4-25
Figure 3.4-4	Extent of Potential Impacts on the Project Site	3.4-27
Figure 3.6-1	Soils	3.6-7
Figure 3.6-2	Project Slope Conditions	3.6-9
Figure 3.11-1	Noise Measurement Locations.....	3.11-13
Figure 3.17-1	Evacuation Assessment Study Area	3.17-13
Figure 3.17-2	Evacuation Trip Distribution	3.17-19
Figure 3.17-3	Comparison of Travel Time to Clear Analysis Area Between Scenarios 2 and 3.....	3.17-21
Figure 3.17-4	Comparison of Travel Time to Clear Analysis Area Between Scenarios 5 and 6.....	3.17-24
Figure 5-1	Alternative 3: Mixed Use Development Alternative.....	5-14
Figure 5-2	Alternative 4: Reduced Build Alternative.....	5-19
Figure 5-3	Alternative 5: Dixon Ranch Alternative	5-23

Tables

Table ES-1	Summary of Impacts and Mitigation Measures.....	ES-7
Table ES-2	Generation at Green Valley Land Use Summary	ES-2
Table 2-1	Generations at Green Valley Residential Lot Density.....	2-5
Table 2-2	Generations at Green Valley Residential Lot Sizes.....	2-5
Table 2-3	Generations at Green Valley Land Use Summary	2-8
Table 3.2-1	National and California Ambient Air Quality Standards	3.2-2
Table 3.2-2	Sources and Health Effects of Criteria Air Pollutants	3.2-10
Table 3.2-3	Attainment Status Designations for El Dorado County.....	3.2-11

Table 3.2-4	Summary of Daily Unmitigated Emissions of Criteria Air Pollutants and Precursors Associated with Project Construction	3.2-22
Table 3.2-5	Summary of Daily Operational Emissions of Criteria Air Pollutants and Precursors at Full Buildout (2030) (Unmitigated)	3.2-23
Table 3.2-6	Maximum Cancer Risk under an Unmitigated Project Scenario	3.2-24
Table 3.2-7	Maximum Cancer Risk under an Unmitigated Project Scenario with Alternative Wastewater Alignment.....	3.2-25
Table 3.2-8	Maximum Cancer Risk under a Mitigated Project Scenario	3.2-25
Table 3.2-9	Maximum Cancer Risk under a Mitigated Project Scenario with Alternative Wastewater Alignment.....	3.2-26
Table 3.4-1	Habitat Mitigation Summary Table	3.4-6
Table 3.4-2	Land Cover on the Project Site	3.4-8
Table 3.4-3	Special-Status Plant Species Known to Occur in the Vicinity of the Project Site and Their Potential for Occurrence on the Project Site	3.4-15
Table 3.4-4	Special-Status Wildlife Species Known to Occur in the Vicinity of the Project Site and Their Potential for Occurrence on the Project Site	3.4-18
Table 3.4-5	Typical Blooming Period for Special-Status Plants That May Occur on the Project Site	3.4-30
Table 3.4-6	Special-Status Wildlife Sensitive Season	3.4-31
Table 3.4-7	Special-Status Wildlife Survey Timing	3.4-32
Table 3.5-1	Pacific Gas and Electric Power Content Label (2022).....	3.5-6
Table 3.5-2	Pioneer Community Energy Power Content Label (2022)	3.5-6
Table 3.5-3	Construction Energy Consumption.....	3.5-8
Table 3.5-4	Operational Energy Consumption.....	3.5-9
Table 3.6-1	Summary of Soil Characteristics.....	3.6-6
Table 3.6-2	Active Nearby Faults within 100 Miles of the Project Site	3.6-10
Table 3.7-1	Statewide GHG Emissions by Economic Sector	3.7-6
Table 3.7-2	Project-Generated Construction Greenhouse Gas Emissions.....	3.7-9
Table 3.7-3	Project-Generated Operational Greenhouse Gas Emissions.....	3.7-10
Table 3.7-4	Project-Generated Operational Greenhouse Gas Emissions (Mitigated).....	3.7-12
Table 3.11-1	Typical A-Weighted Noise Levels.....	3.11-3
Table 3.11-2	Human Response to Different Levels of Ground Noise and Vibration.....	3.11-4
Table 3.11-3	Ground-Borne Vibration (GBV) Impact Criteria for General Assessment	3.11-5
Table 3.11-4	FTA Construction Damage Vibration Criteria	3.11-6
Table 3.11-5	Caltrans Recommendations Regarding Levels of Vibration Exposure.....	3.11-6
Table 3.11-6	Maximum Allowable Noise Exposure for Transportation Noise Sources	3.11-8
Table 3.11-7	Noise Level Performance Protection Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources.....	3.11-8
Table 3.11-8	Summary of Modeled Existing Traffic Noise Levels.....	3.11-11
Table 3.11-9	Summary of Existing Ambient Noise Level Survey	3.11-12

Table 3.11-10	Construction Noise Levels from Center of Project Site at Nearest Sensitive Receptors.....	3.11-17
Table 3.11-11	Noise Levels from Park Lot A and Open Space Lots.....	3.11-20
Table 3.11-12	Noise Levels from Clubhouse	3.11-21
Table 3.11-13	Summary of Modeled Traffic Noise Levels under Existing and Existing Plus Project Conditions.....	3.11-22
Table 3.12-1	SACOG Regional Population Growth Forecast	3.12-3
Table 3.12-2	Comparison 1990, 2000, 2010, and 2020 Population.....	3.12-3
Table 3.12-3	Population Forecast for El Dorado County.....	3.12-4
Table 3.12-4	2023 Population and Housing Estimates for El Dorado County.....	3.12-4
Table 3.13-1	El Dorado County General Plan Table 5-1: Minimum Level of Service	3.13-4
Table 3.13-2	Guidelines for Acquisition and Development of Park Facilities.....	3.13-6
Table 3.13-3	School Enrollment in the Project Area	3.13-13
Table 3.14-1	General Plan Table TC-1: General Roadway Standards for New Development by Road Classification.....	3.14-4
Table 3.14-2	Project-Generated VMT Threshold	3.14-10
Table 3.14-3	Total Project-Generated VMT Forecasts	3.14-13
Table 3.14-4	Collision Data in the Vicinity of the Project Site	3.14-16
Table 3.15-1	General Plan Table 5-1: Minimum Levels of Service.....	3.15-3
Table 3.15-2	EID Water Supply and Demand Comparison – Average Year (acre-feet per year).....	3.15-13
Table 3.15-3	EID Water Supply and Demand Comparison – Single Dry Year (acre-feet per year).....	3.15-13
Table 3.15-4	EID Water Supply and Demand Comparison – Multiple Dry Years (acre-feet per year).....	3.15-13
Table 3.15-5	Wastewater Demand under the Project.....	3.15-21
Table 3.17-1	Fire Incidents in El Dorado County Since 2020.....	3.17-10
Table 3.6-1	Summary of Soil Characteristics.....	3.6-7
Table 3.6-2	Active Nearby Faults within 100 Miles of the Project Site	3.6-9
Table 4-1	Geographic Scope of Cumulative Impacts.....	4-2
Table 4-2	Cumulative Projects List.....	4-3
Table 4-3	Summary of Modeled Traffic Noise Levels under Cumulative No Project and Cumulative Plus Project Conditions.....	4-17
Table 4-4	Cumulative Vehicle Miles Traveled.....	4-22
Table 5-1	Summary of Environmental Effects of the Alternatives Relative to Those of the Proposed Project.....	5-29

LIST OF ABBREVIATIONS

°C	Celsius
°F	Fahrenheit
2020 UWMP	El Dorado Irrigation District 2020 Urban Water Management Plan
AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
ACC	Advanced Clean Cars
ACC II	Advanced Clean Cars II
ADT	average daily traffic
ADWF	average dry weather flow
AERMOD	Agency Regulatory Model Improvement Committee modeling system
af	acre-feet
AFVs	alternative fuel vehicles
afy	acre-feet per year
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act of 1972
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
APN	Assessor's Parcel Numbers
AQAP	air quality attainment plan
AQMD	El Dorado County Air Quality Management
Area Plan	Hazardous Materials Area Plan
BAAQMD	Bay Area Air Quality Management District
BACT	best available control technology
Basin Plan	Central Valley Water Quality Control Plan
BMP	best management practice
Board	Board of Forestry and Fire Protection
BOS	Boad of Supervisors
B.P.	before present
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	Green Building Standards Code
CalGreen code	Title 24 California Building Code
Cal/OSHA	California Occupational Safety and Health Administration

CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CA SDWA	California Safe Drinking Water Act
CBC	California Building Code
CBSC	California Building Standards Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDP	Census Designated Place
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFD	Community Facilities District
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	methane
CHP	California Highway Patrol
CHWMP	El Dorado County Hazardous Waste Management Plan
CI	carbon intensity
CIP	Capital Improvements Plan
CMP	Congestion Management Process
CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide-equivalent
County	El Dorado County
County General Plan	El Dorado County General Plan
County SWMP	El Dorado County Stormwater Management Plan
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSD	Community Services District
CUPA	Certified Unified Program Agency
CUWCC	California Urban Water Conservation Council
CWA	Clean Water Act
dB	decibel
DCWWTP	Deer Creek Wastewater Treatment Plant

Design Manual	El Dorado County Design and Improvement Standards Manual
DISM	County Design and Improvement Standards Manual
DOC	California Department of Conservation
DOT	El Dorado County Department of Transportation
DRA	Debris Recycling Acknowledgment
Draft EIR	draft environmental impact report
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EAE	emergency access/egress
ECA	Essential Connectivity Areas
ECCWPP	El Dorado County Community Wildfire Protection Plan
EDCAQMD	El Dorado County Air Quality Management District
EDCC	El Dorado County Code
EDCEMD	El Dorado County Environmental Management Department
EDCTC	El Dorado County Transportation Commission
EDC TDM	El Dorado County Travel Demand Model
EDHCSD	El Dorado Hills Community Service District
EDHFD	El Dorado Hills Fire Department
EDHWTP	El Dorado Hills Wastewater Treatment Plant
EDU	equivalent dwelling units
EDWA	El Dorado Water Agency
EID	El Dorado Irrigation District
EO	Executive Order
EOP	El Dorado County Emergency Operations Plan
EPA	US Environmental Protection Agency
EPAct	The Energy Policy Act
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
ESA	federal Endangered Species Act
ETE	evacuation time estimates
EV	electric vehicle
EVA	emergency vehicle access
EVSE	electric vehicle supply equipment
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FPD	Fire Protection Districts
FTA	Federal Transit Administration

GHG	greenhouse gas
HAP	hazardous air pollutant
HCD	California Department of Housing and Community Development
HDR	High Density Residential
HMPC	hazard mitigation planning committee
HOA	homeowners association
HRA	health risk assessment
Hz	hertz
IEPR	Integrated Energy Policy Report
INRMP	Integrated Natural Resources Management Plan
in/sec	inches/second
IPaC	Information for Planning and Consultation
IPCC	Intergovernmental Panel on Climate Change
ITP	incidental take permit
IWRMP	Integrated Water Resources Master Plan
LAFCO	Local Agency Formation Commission
LCFS	Low Carbon Fuel Standard
LDIGR	Local Development Intergovernmental Review
L _{dn}	day-night level
LDR	Low Density Residential
L _{eq}	equivalent continuous sound level
LHMP	Local Hazard Mitigation Plan
LID	low impact development
LOS	level of service
LRA	Local Responsible Area
LUST	Leaking Underground Storage Tank
MACT	Maximum Achievable Control Technology
map	land use diagram
MBTA	Migratory Bird Treaty Act
MCAB	Mountain Counties Air Basin
MCL	maximum contaminant level
MEIR	maximally exposed individual resident
mgd	million gallons per day
MLD	most likely descendant
MMT	million metric tons
MMT _{CO₂e}	million metric tons of CO ₂ equivalent
mPa	micro-Pascals
MPO	metropolitan planning organization

MS4	municipal separate storm sewer system
MTIP	Metropolitan Transportation Improvement Program
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
MWELo	Model Water Efficient Landscape Ordinance
MWh/year	megawatt hours per year
N ₂ O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Center
NASA	National Aeronautics and Space Administration
NEHRP	National Earthquake Hazards Reduction Program
NFIP	National Flood Insurance Program
NHTSA	National Highway Traffic Safety Administration
NO ₂	nitrogen dioxide
NOA	naturally occurring asbestos
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O	Open Space
OAL	Office of Administrative Law
OBD	on-board diagnostic
OE/AAA	Obstruction Evaluation/Airport Airspace Analysis
OES	Office of Emergency Services
OPR	California Governor's Office of Planning and Research
ORMP	Oak Resources Management Plan
OS	Open space
OSHA	Occupational Safety and Health Administration
OWTS	on-site wastewater treatment systems
PD	Planned Development
PF	Public Facilities
PG&E	Pacific Gas and Electric
PM _{2.5}	fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less
PM ₁₀	respirable particulate matter with an aerodynamic diameter of 10 micrometers or less
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
ppb	parts per billion
PPV	peak particle velocity

PRC	Public Resources Code
Program	Biological Resource Mitigation Program
project	Generations at Green Valley Project
PV	photovoltaic
R	Single-Unit Residential
R1	Residential, Single-Unit
R20K	Residential 20,000
RE	residential estate
RE-5	Estate Residential Five-Acre
RE-10	Estate Residential 10 Acres
RFH	Recreational Facilities, High-Intensity
RF-L	Recreation Facilities-Low
RHNA	Regional Housing Needs Allocation
RHNP	Regional Housing Needs Plan
RL	rural land
RL-10	Rural Lands 10 acres
RMS	root mean square
ROG	reactive organic gas
RPS	Renewables Portfolio Standard
RTP	regional transportation plan
RUSD	Rescue Union School District
RWQCB	regional water quality control board
SACOG	Sacramento Area Council of Governments
SafeTREC	UC Berkeley Safe Transportation Research and Education Center
SARA Title III	Superfund Amendments and Reauthorization Act of 1986
SB	Senate Bill
SDWA	Safe Drinking Water Act
SFL	Sacred Lands file
SFNA	Sacramento Federal Non-Attainment Area
SGMA	Sustainable Groundwater Management Act of 2014
SIP	state implementation plan
SLCP	Short-Lived Climate Pollutant
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO ₂	sulfur dioxide
SOI	Sphere of Influence
SPL	sound pressure level
SRA	State Responsibility Areas
SWMP	stormwater management program
SWPPP	stormwater pollution prevention plan

SWRCB	State Water Resources Control Board
SWRCB-DDW	State Water Resources Control Board Division of Drinking Water
TAC	toxic air contaminant
TAZ	transportation analysis zone
TDM	Transportation Demand Management
TIMS	Transportation Injury Mapping System
TIS	Transportation Impact Study
TM	Test Method
TMDL	total maximum daily load
TRI	Toxic Release Inventory
US	United States
USACE	US Army Corps of Engineers
USC	US Code
US Census	US Census
USDOT	US Department of Transportation
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
UWMP	urban water management plan
UWMPA	Urban Water Management Planning Act
VdB	vibration decibels
VHFHSZ	very high Fire Hazard Severity Zones
VMT	vehicle miles traveled
VMT Memo	Vehicle Miles Traveled Memorandum
VOC	volatile organic compound
WDR	Waste Discharge Requirement
WES	Wildfire Evacuation Study
WQO	Water Quality Objective
WUI	Wildland-Urban Interface
ZEV	zero-emission vehicle

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

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

ES.2 SUMMARY DESCRIPTION OF THE PROJECT

ES.2.1 Project Location

The project site is located in an unincorporated area of El Dorado County, in the eastern portion of the El Dorado Hills Community Region. It encompasses 280 acres on five parcels: Assessor’s Parcel Numbers (APNs) 126-020-001, 126-020-002, 126-020-003, 126-020-004, and 126-150-023. Most of the site is located south of Green Valley Road. The northern tip of the site (portion of APN 126-150-023) is located north of the road. This portion of the project site is being removed as part of a boundary line adjustment being processed under a separate application to the County. The project also includes two proposed access roadway connections to Green Valley Road (C-Drive and A-Drive) that would use existing easements to access Green Valley Road. Existing land uses in the project area consist of single-family residences and rural residential areas.

ES.2.2 Project Background

The project site was previously proposed for development with an application that was submitted in 2011. The previous project was named “Dixon Ranch” and proposed a General Plan amendment, rezone, planned development, and a tentative subdivision map that would allow for the development of 605 residential lots (including 160 age-restricted units) that would have ranged from 4,724 square-feet to over 5 acres in size. Dixon Ranch also proposed two park sites, a clubhouse, and designated open space. Proposed circulation and infrastructure improvements included off-site improvements to access Green Valley Road, wastewater conveyance improvements, and electrical service improvements. Dixon Ranch was denied by the Board of Supervisors on February 14, 2017.

The proposed project is brought by a different applicant and is independent of Dixon Ranch. While a new project, the applicant has considered concerns expressed by the public and Board of Supervisors during hearings for Dixon Ranch. Most notably, the proposed project has substantially reduced the number of proposed residential lots from 605 to 379 (approximately 37 percent reduction in residential lots).

ES.2.3 Project Objectives

The applicant has identified the following objectives of the Generations at Green Valley Project:

- ▶ Implement the County’s General Plan by directing urban/suburban growth within the El Dorado Hills Community Region located adjacent to existing residential development in order to ensure the preservation of large expanses of open space and agricultural lands within the County.
- ▶ Establish a land use pattern that maintains and enhances the character of existing rural and urban communities, emphasizing both the natural setting and built design elements.

- ▶ Develop a thoughtful design that focuses higher density residential lots toward the center of the parcel and includes large residential lots, open space, and parks throughout the project as an amenity but especially the exterior to provide significant buffers between existing residential communities.
- ▶ Provide a range of residential densities and product type to meet the needs of the changing demographics of the County, including families, empty nesters, and active adults.
- ▶ Create a residential community containing open space and a range of passive and active recreational amenities for its residents and the community.
- ▶ Establish an economically viable project that provides a fair-share contribution of infrastructure to the community through the payment of fees and/or construction of off-site transportation improvements in accordance with the County's General Plan.
- ▶ Improve emergency access and evacuation routes in the project area.
- ▶ Provide a comprehensively planned project that is sensitive to environmental issues including wetland and tree preservation.

ES.2.4 Characteristics of the Project

The Generations at Green Valley Project proposes to amend the General Plan land use designations to High Density Residential (HDR), Low Density Residential (LDR), and Public Facilities (PF). The project would rezone the site to Residential, Single-Unit (R1 [6,000-square foot minimum]), Open Space (OS), Recreational Facilities, High Intensity (RF-H), and Residential Estate, Five-Acre (RE-5). The project also proposes a tentative subdivision map. The proposed development area of the project would be within the General Plan designated El Dorado Hills Community Region boundary.

Table ES-2 provides an overview of the proposed land uses of the project. Each of the project components is described in detail below.

Table ES-2 Generation at Green Valley Land Use Summary

Proposed General Plan Land Use Designation	Proposed Zoning	Summary of Proposed Land Use	Number of Lots
Residential			
Low Density Residential	Residential Estate -5 acre	Residential estate lots generally located along the perimeter of the site	18
High Density Residential	Residential, Single-Unit	Single-family residential lots generally located in the central and southern portion of the site, with 214 residential lots age restricted	361
<i>Total Number of Residential Lots</i>			<i>379¹</i>
Parks and Recreation Facilities			
High Density Residential	Recreational Facilities, High Intensity	Clubhouse site on a 3.3-acre lot (proposed as lot B)	1
Public Facilities	Recreational Facilities, High Intensity	Park site on a 4.0-acre lot (proposed as lot A)	1
Landscaping and Open Space			
Low Density Residential	Estate Residential -5 acre	Landscape lot L1	1
High Density Residential	Residential, Single-Unit	Landscape lots L2-L13	12
Low Density Residential	Open Space	Open space lots C, D, and I and a portion of F	4
Low Density Residential and High Density Residential	Open Space	Open space lots C, D, E, F, G, H, I, J, and K.	9

¹ Lot 1 would retain the existing residence on the site. Thus, total new residential development would consist of 378 residential lots.

Sources: Generations at Green Valley Tentative Map dated December 2021 (CTA 2021a) and Generations at Green Valley Zoning and General Plan Map (CTA 2021b).

CIRCULATION IMPROVEMENTS

The project roadway system would consist of a “loop” private roadway system. Access to the project site would consist of two new roadway connections to Green Valley Road associated with proposed C-Drive and A-Drive would include dedicated deceleration lanes and turn lanes separated from the travel lanes of Green Valley Road. The C-Drive intersection with Green Valley Road would be limited to a right-turn in and left turn out access from C-Drive, while A-Drive intersection with Green Valley Road would be a signalized full access intersection. Proposed Lot 1 would continue to obtain roadway access from Verde Valley Lane for the existing on-site residence.

The project roadways would include sidewalks as well as a pedestrian trail that would connect the park site to a trail along the eastern side of C-Drive.

The project would include an emergency access/egress (EAE) at Lima Way to serve as a secondary means of emergency access and evacuation that would be gated but designed to be accessible by project residents during an evacuation order. There would also be two emergency vehicle access (EVA) road connections at Marden Drive and at East Green Springs Road (to the south) that would be stubbed to the property line for emergency vehicle use. These accesses would meet the design standards for gated developments as described in Section 130.30.090(D) of the El Dorado County Code of Ordinances and the El Dorado Hills Fire Department Ordinance 2022-01. The gates would also comply with all design and operation criteria included in Section D103.5 of El Dorado Hills Fire Department Ordinance 2022-01.

Based on the results of the 2022 Generations at Green Valley Transportation Impact Study prepared by Kimley-Horn (Kimley-Horn 2022), the project is proposing the following traffic signal operational improvements to address compliance with the El Dorado County Transportation and Circulation Element policies TC-Xd, TC-Xe, and TC-Xf. These improvements would not involve physical alteration of these intersections.

- ▶ Optimize traffic signal coordination on El Dorado Hills Boulevard/Latrobe Road from White Rock Road to Saratoga Way (North).
- ▶ Modify traffic signal phasing and hardware for the Silva Valley Parkway and Harvard Way intersection to provide a southbound right-turn overlap.

DRAINAGE IMPROVEMENTS

The project would include several drainage improvements in order to maintain or reduce peak flows leaving the site as well as flows and flood elevations in Green Springs Creek. Drainage improvements are shown in Figure 2-9a and 2-9b:

- ▶ Removal of the existing ponds within the Green Spring Creek corridor in the northern portion of the site through replacement of the existing upstream culvert crossing with a new Conspan crossing at the proposed C-Drive crossing, removal of the downstream embankment (downstream of C-Drive), and restoration of the creek channel to its approximate natural state near proposed A-Drive crossing. This would include the installation of rock slope protection and check dams within the channel. These improvements would require permitting under the federal Clean Water Act (Section 404) from the U.S. Army Corps of Engineers and approval of a streambed alteration agreement (1602 Permit) from California Department of Fish and Wildlife Service.
- ▶ Construction of eight on-site detention/water quality basins.

PUBLIC SERVICE PROVISION AND INFRASTRUCTURE IMPROVEMENTS

The project proposes to obtain public and utility services from the following agencies:

- ▶ El Dorado Hills Fire Department (also known as the El Dorado Hills County Water District/Fire Protection District) for fire protection services;
- ▶ El Dorado Hills CSD for parks, recreation, and other community services; and
- ▶ El Dorado Irrigation District (EID) for water and wastewater services.

Obtaining services from these agencies would require the El Dorado Local Agency Formation Commission to approve the annexations of the site into the service boundaries of these agencies.

Off-Site Water Distribution Improvements

As noted above, EID is proposed to provide public water service to the project site, with the exception of proposed Lot 1 that would continue to use its existing on-site well for water supply. There are also two additional wells on-site that would be abandoned consistent with County regulations. On-site water supply would be distributed through a network of pipelines within the project's roadway right-of-way. The project would require the off-site improvements for water supply service identified below.

- ▶ Connection to an existing 8-inch water distribution pipeline within Lima Way on the project's western boundary.
- ▶ Construction of a new water distribution pipeline from the project's southern boundary to an existing 10-inch pipeline located in Greenview Drive. This distribution pipeline would be approximately one mile in length.
- ▶ Construction of a new water distribution pipeline from the project's eastern boundary along Green Valley Road to an existing 12-inch pipeline west of Pleasant Grove Middle School. This distribution pipeline would be approximately one mile in length.

Off-Site Wastewater Conveyance Improvements

EID is also proposed to provide wastewater conveyance and treatment services to the project, with the exception of proposed Lot 1 that would continue to use its existing on-site wastewater treatment system and lots 2 through 8 that would construct new on-site wastewater disposal systems. The proposed park site would use a restroom vault that would store wastewater until emptied by a wastewater disposal truck. On-site wastewater would be conveyed through a network of pipelines within the project's roadway right-of-way. The project would require the off-site improvements for wastewater conveyance listed below.

- ▶ Connection to an existing 8-inch gravity wastewater conveyance pipeline within Lima Way on the project's western boundary.
- ▶ Upsizing of approximately 1,600 linear feet of existing gravity wastewater pipeline upstream of the Highland Hills Lift Station that is currently located within a private open space corridor. The Highland Hills Lift Station is located along Loch Way and would be upgraded or expanded.
- ▶ Construction of approximately 8,500-linear foot force main from the Highland Hills Lift Station to an existing 15-inch gravity wastewater pipeline that flows to the St. Andrews Lift Station along Glenmore Way, Highland Drive, West Glenmore Way, Silva Valley Parkway, and a SMUD utility easement.
 - The St. Andrews Lift Station where the proposed new force main would discharge has limited capacity. Thus, the project identifies an alternative wastewater alignment where the proposed new force main would be extended further south along Silva Valley Parkway where it would connect to a 24-inch gravity flow pipeline south of Harvard Way should adequate capacity not be available at the time of project development.

ELECTRICAL SERVICE AND IMPROVEMENTS

Electrical service and natural gas would be provided by Pacific Gas and Electric (PG&E). Off-site improvements include installation of a new electrical cable through the existing conduit on Sangiovese Drive; new trenching for installation of a 6-inch conduit and cable on a portion of Appian Way; and removal and replacement of cable in an existing conduit along portions of Lima Way, Aberdeen Lane, and Appian Way for a length of approximately 1.4 miles. Additionally, improvements to electrical distribution facilities along Green Valley Road to the western edge of the Travois Subdivision in Cameron Park for a length of approximately 2 miles. Natural gas service would consist of a connection to the existing natural gas pipeline in Lima Way along the western boundary of the site.

ES.3 ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

ES.3.1 Project-Specific Impacts

This EIR has been prepared pursuant to CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.) to evaluate the physical environmental effects of the proposed project. El Dorado County is the lead agency for the project. The County has the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA have been met.

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

ES.3.2 Significant and Unavoidable Impacts and Cumulative Impacts

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

- ▶ Impact 3.7-1 and 4-11: The project would result in GHG emissions during both construction and operational phases. While mitigation (Mitigation Measures 3.7-1a, 3.7-1b, and 3.14-2) has been identified to address this impact, the project would result in a significant and unavoidable impact under project and cumulative conditions.
- ▶ Impact 3.11-1: Short-term construction-generated noise levels associated with the project would expose nearby noise-sensitive receptors to excessive noise levels. While mitigation (Mitigation Measure 3.11-1) has been identified to address this impact, the project would result in a significant and unavoidable impact under project conditions.
- ▶ Impact 3.14-2 and 4-24: Implementation of the project would exceed the significance threshold of 19.1 VMT per capita for residential uses (i.e., 15 percent below the existing county VMT per capita) as identified in County Resolution 141-2020. While mitigation (Mitigation Measure 3.14-2) has been identified to address this impact, the project would result in a significant and unavoidable impact under project and cumulative conditions.
- ▶ Impact 3.15-1: The project would include the construction of on-site and off-site infrastructure improvements that would result in significant environmental impacts related to construction noise. While mitigation (Mitigation Measure 3.11-1), has been identified to address this impact, the project would result in a significant and unavoidable impact under project conditions.
- ▶ Impact 4-8: The project would contribute to the cumulative loss of oak woodland habitat due to the anticipated removal of approximately 56 acres of oak woodland habitat. Thus, the project's contribution to cumulative oak woodland loss identified in the Biological Resources Policy Update and ORMP Final EIR would be cumulatively considerable and significant and unavoidable.

ES.4 ALTERNATIVES TO THE PROPOSED PROJECT

Chapter 5, "Alternatives," provides an analysis of alternatives to the proposed project. Brief descriptions of the alternatives evaluated in this Draft EIR provided below.

- ▶ Alternative 1: No Project–No Development Alternative - This alternative assumes no development of the site. The project site would remain in its current condition.
- ▶ Alternative 2: No Project/Development Consistent with the General Plan Alternative - The project site would be developed consistent with the site's current General Plan land use designation of Low Density Residential. This would result in on-site roadway improvements with three emergency vehicle access points and a 56 residential lot subdivision (five acre lots). Water and wastewater would consist of on-site wastewater disposal systems and wells. Off-site improvements would be limited to access improvements to Green Valley Road.

- ▶ Alternative 3: Mixed Use Development Alternative - This alternative would modify the proposed project site plan to provide mixed land uses in the eastern portion of the project site that would consist of 350 multi-family residential units for extremely low-, very low-, low-, and moderate-income households as defined by the 2021-2029 Housing Element and 30,000 square feet of commercial uses. This alternative would also designate proposed lots 2 through 4 as open space. All other aspects of the proposed project would be retained.
- ▶ Alternative 4: Reduced Build Alternative – This alternative would redesignate the project site as Medium Density Residential and Open Space under the General Plan, but would retain the existing on-site residence on a five-acre lot. This would allow the development of 155 residential lots (one-acre lots).
- ▶ Alternative 5: Dixon Ranch Alternative – This alternative would consist of the previously proposed Dixon Ranch Residential Project (Dixon Ranch), which was denied by the Board of Supervisors on February 14, 2017. The Dixon Ranch project proposed to subdivide the site to create 605 single-family residential lots (containing 604 new single-family detached residential units and the retention of the existing Dixon residence). Approximately 160 of these units would be age restricted. Dixon Ranch also proposed open space areas, including parks, trails, landscaped lots, and native open spaces.

ES.5 AREAS OF CONTROVERSY

State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify the areas of controversy known to the lead agency, including issues raised by agencies and the public. State CEQA Guidelines Section 15123 requires the summary section of a Draft EIR to identify issues to be resolved related to the proposed project.

On February 26, 2024, a notice of preparation (NOP) was distributed for the project to responsible agencies, interested parties, and organizations, as well as private organizations and individuals that may have an interest in the project. A public scoping meeting was held on March 12, 2024. The purpose of the NOP and the scoping meeting was to provide notification that an EIR was being prepared for the project and to solicit input on the scope and content of the environmental document. The NOP and responses to the NOP are included in Appendix A of this Draft EIR. The following key concerns and issues were expressed during the scoping process:

- ▶ proposed density and extent of residential development proposed,
- ▶ change in landscape and land use characteristics of the project area (especially along Green Valley Road),
- ▶ air quality impacts and exposure to naturally occurring asbestos,
- ▶ water supply,
- ▶ wastewater capacity,
- ▶ biological resources,
- ▶ traffic and traffic safety on the Green Valley Road and Highway 50 corridors, and
- ▶ wildfire and evacuation.

ES.6 ISSUES TO BE RESOLVED

Section 15123 of the State CEQA Guidelines requires the summary section of a Draft EIR to identify issues to be resolved in the EIR, including the choice among alternatives and whether or how to mitigate the significant project effects. The following issues, in addition to the areas of controversy, are identified to be resolved:

- ▶ whether the project should be approved, modified, or denied;
- ▶ whether the is consistent with the El Dorado County General Plan; and
- ▶ whether the mitigation measures identified in the Draft EIR should be applied to the project.

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Aesthetics			
<p>Impact 3.1-1: Substantially Degrade the Existing Visual Character or Quality of Public Views of the Site and Its Surroundings</p> <p>Development of the proposed project would result in 379 residential lots, a clubhouse lot, a park site lot, 13 landscape lots, and nine open space lots on the 280-acre project site, as well as associated off-site roadway and utility improvements, altering the nonurbanized, open space landscape of the site to a suburban development. However, the project design includes open space and rural residential lots that would buffer and transition to the development in a manner that would be visually consistent with surrounding residential development. Further, the project would be consistent with General Plan policies that address visual resources. For these reasons, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.1-2: Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views in the Area</p> <p>Project implementation would result in an increase in the amount of light and glare on the project site, which would affect nighttime views in the area. However, the project would comply with General Plan policies and El Dorado County’s Zoning Ordinance and associated standards, which would require outdoor lighting to be shielded and directed so as not to have direct light fall outside property lines or public rights-of-way. Because the completed project would have similar characteristics with existing development in the project area, causing the completed project to coincide with the surrounding development, as well as comply with the mentioned regulations, implementing the project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Air Quality			
<p>Impact 3.2-1: Conflict with or Obstruct Implementation of an Applicable Air Quality Plan</p> <p>The applicable AQAP considered in this analysis is the 2023 Ozone Plan. Growth induced by the project is accounted for in the Sacramento Area Council of Government’s (SACOG’s) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which informs the growth projections used in the development of the 2023 Ozone Plan. The project would exceed applicable</p>	S	<p>Mitigation Measure 3.2-1a: Apply Tier-4 Emission Standards to All Diesel-Powered Off-Road Equipment</p> <p>Construction contractors for the project shall use only off-road construction equipment that meets EPA’s Tier 4 emission standards, as defined in 40 CFR 1039, and comply with the appropriate test procedures and provisions contained in 40 CFR Parts 1065 and 1068. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Implementation of this measure shall be required</p>	LTS

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>project-level thresholds related to construction NOx and TAC emissions. The project also would comply with all applicable EDCAQMD rules, including Rule 223-1 and Rule 223-2. However, the project includes a proposed General Plan Amendment, would exceed short-term construction and operational thresholds, and is not consistent with VMT-reduction objectives of the AQAP. This impact would be significant.</p>		<p>in the contract the project applicant establishes with its construction contractors. The project shall demonstrate its plan to fulfill the requirements of this measure in a report or project improvement plan details submitted to the County before the use of any off-road diesel-powered construction equipment on the site.</p> <p>Mitigation Measure 3.2-1b: Implement Best Available Fugitive Dust Control Measures</p> <p>In accordance with Section 4.2.3 of the EDCAQMD CEQA Guide, the applicant shall ensure that construction and grading activities minimize short-term impacts on air quality by employing the dust reduction measures of the South Coast Air Quality Management District's (SCAQMD's) Rule 403, identified as mitigation in Section C.6 of the EDCAQMD CEQA Guide. Construction contractors shall implement the following dust control measures:</p> <ul style="list-style-type: none"> ▶ Earth-moving (except construction cutting and filling areas, and mining operations) <ul style="list-style-type: none"> ▪ Control Action 1a. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the District; two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR ▪ Control Action 1a-1. For any earth-moving that is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction. ▶ Earth-moving – construction fill areas <ul style="list-style-type: none"> ▪ Control Action 1b. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the District; for areas that have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM method 1557 or other equivalent method approved by the District, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content; two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations. ▶ Earth-moving – construction cut areas and mining operations <ul style="list-style-type: none"> ▪ Control Action 1c. Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining areas 	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.</p> <ul style="list-style-type: none"> ▶ Disturbed surface areas (except completed grading areas) <ul style="list-style-type: none"> ▪ Control Action 2a/b. Apply dust suppression in a sufficient quantity and frequency to maintain a stabilized surface; any areas that cannot be stabilized, as evidenced by wind-driven dust, must have an application of water at least twice per day to at least 80 percent of the unstabilized area. ▶ Disturbed surface areas –completed grading areas <ul style="list-style-type: none"> ▪ Control Action 2c. Apply chemical stabilizers¹ within 5 working days or grading completion; OR ▪ Control Action 2d. Take action 3a or 3c specified for inactive disturbed surface areas. ▶ Inactive disturbed surface areas <ul style="list-style-type: none"> ▪ Control Action 3a. Apply water to at least 80 percent of all inactive disturbed surface areas daily when there is evidence of wind-driven fugitive dust, excluding any areas that are inaccessible due to excessive slope or other safety conditions; OR ▪ Control Action 3b. Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR ▪ Control Action 3c. Establish a vegetative ground cover within 21 days after active operations have ceased; ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR ▪ Control Action 3d. Utilize any combination of control actions 3a, 3b, and 3c such that, in total, they apply to all inactive disturbed surface areas. ▶ Unpaved roads <ul style="list-style-type: none"> ▪ Control Action 4a. Water all roads used for any vehicular traffic at least once per every two hours of active operations; OR ▪ Control Action 4b. Water all roads used for any vehicular traffic once daily and restrict vehicle speed to 15 mph; OR 	

¹ Chemical stabilizers are defined by EDCAQMD as a non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the Environmental Protection Agency, or any applicable law, rule or regulation; and should meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface (El Dorado County 2018).

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<ul style="list-style-type: none"> ▪ Control Action 4c. Apply chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface. ▶ Open storage piles <ul style="list-style-type: none"> ▪ Control Action 5a. Apply chemical stabilizers; OR ▪ Control Action 5b. Apply water to at least 80 percent of the surface areas of all open storage piles daily when there is evidence of wind-driven fugitive dust; OR ▪ Control Action 5c. Install a three-sided enclosure with walls with no more than 50 percent porosity that extend, at a minimum, to the top of the pile. ▶ Track-out control <ul style="list-style-type: none"> ▪ Control Action 6a. Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and width of at least 20 feet; OR ▪ Control Action 6b. Pave from the point of intersection with the public paved road surface, extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device. <p>Mitigation Measure 3.2-1c: Implement Asbestos Dust Mitigation Consistent with EDCAQMD Rule 223-1</p> <p>Consistent with EDCAQMD Rule 223-2 and County Ordinance 4548, if the presence of NOA is confirmed by a professional geologist through a geologic survey, the following asbestos dust control measures shall be implemented by the applicant:</p> <ol style="list-style-type: none"> 1. The project applicant shall submit an Asbestos Dust Mitigation Plan to the Air Pollution Control Officer before the start of any construction activity that applies to EDCAQMD's Rule 223-1. An updated Asbestos Dust Mitigation Plan must be submitted if the project is significantly modified, a new grading permit is issued, the owner/operator changes or the Air Pollution Control Officer requests that a new plan be submitted. 2. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Asbestos Dust Mitigation Plan. The project applicant shall provide written notification to the Air Pollution Control Officer at least 10 days before the commencement of earthmoving activities by email, fax, or mail. The requirement to submit an Asbestos Dust 	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>Mitigation Plan shall apply to all such activities conducted for residential and nonresidential (e.g., commercial, industrial, or institutional) purposes or conducted by any governmental entity.</p> <ol style="list-style-type: none"> 3. An owner/operator may submit one Asbestos Dust Mitigation Plan covering multiple construction stages within the same project, provided the plan includes a description of activities and control measures for all stages of the project. The Asbestos Dust Mitigation Plan shall specify the expected start and final completion date of each project. 4. The Asbestos Dust Mitigation Plan shall describe all dust mitigation measures to be implemented before, during, and after any dust-generating activity, such as the application of soil stabilizers, pre-watering soil before cut-and-fill activities, and covering haul vehicles. Additional measures may be identified by the EDCAQMD or contractor as appropriate. 5. The Asbestos Dust Mitigation Plan shall contain all the information described in Section 223-2.5.B of Rule 223. The Air Pollution Control Officer shall approve, disapprove, or conditionally approve the Asbestos Dust Mitigation Plan within 30 days of plan submittal. The County will not issue a grading permit for any phase of construction until it has received the approved Asbestos Dust Mitigation Plan. Compliance with the approved plan will be documented, at the applicant's expense, through periodic monitoring and annual reporting to the County. 6. An owner/operator shall retain a copy of an approved Asbestos Dust Mitigation Plan at the project site. The approved Asbestos Dust Mitigation Plan shall remain valid until the termination of all dust-generating activities. Failure to comply with the provisions of an approved Asbestos Dust Mitigation Plan is deemed to be a violation of Rule 223. Regardless of whether an approved Asbestos Dust Mitigation Plan is in place, or even when the owner/operator responsible for the plan is complying with an approved Asbestos Dust Mitigation Plan, the owner/operator shall comply also with all requirements of this rule at all times. 7. The name(s), address(s), and phone number(s) of person(s) and owner(s)/operator(s) responsible for the preparation, submittal, and implementation of the Asbestos Dust Mitigation Plan and responsible for the dust-generating operation and the application of dust control measures shall be included in the plan. 	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<ol style="list-style-type: none"> 8. The Asbestos Dust Mitigation Plan shall include a plot plan that shows the type and location of the project. 9. The Asbestos Dust Mitigation Plan shall identify the total area of land surface to be disturbed and the total area in acres of the entire project site. 10. The Asbestos Dust Mitigation Plan shall identify the expected start and completion dates of dust-generating and soil disturbance activities to be performed on the site. 11. The Asbestos Dust Mitigation Plan shall identify the actual and potential sources of fugitive dust emissions on the site and the location of bulk material handling and storage areas, paved and unpaved roads, entrances and exits where carryout/track-out may occur, and traffic areas. 12. The Asbestos Dust Mitigation Plan shall require the implementation of best management practices (Rule 223-2, Tables 1–4) or other effective measures for construction, bulk material handling, carry- and track-out management, and blasting activities. 13. The Asbestos Dust Mitigation Plan shall require that dust control measures (Rule 223-2, Tables 5 and 6) be implemented during construction. 14. If chemical dust suppressants are to be applied, the following information must be included in the Asbestos Dust Mitigation Plan: product specifications; manufacturer’s usage instructions (method, frequency, and intensity of application); type, number, and capacity of application equipment; and information on environmental impacts and approvals or certifications related to the appropriate and safe use for ground application. 15. The Asbestos Dust Mitigation Plan shall identify specific surface treatment(s) and/or control measures to be used to control material carryout, track-out, and sedimentation where unpaved and/or access points join paved roads. 16. The Asbestos Dust Mitigation Plan shall state how often the items specified in Section 223-2.9, and any other items identified in the plan, will be reported to EDCAQMD. 17. The contractor must have clearly displayed signage at multiple points along the project’s boundary line notifying that soils in the area may contain NOA, also stating that NOA is a known carcinogen. The signage shall also provide the phone number of the contractor as well as EDCAQMD to allow reporting of excessive fugitive dust. 	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>Impact 3.2-2: Generate Short-Term Construction-Related Emissions of ROG, NO_x, PM₁₀, and PM_{2.5}</p> <p>Construction of the project (including off-site roadway and infrastructure improvements) would result in emissions of NO_x emissions would exceed daily EDCAQMD thresholds. Further, the EDCAQMD CEQA Guide states that for the impact related to particulate matter emissions to be considered less than significant, projects must incorporate dust mitigation measures in compliance with the dust reduction measures outlined in Rule 403 of SCAQMD. Although the project would include the dust reduction measures of EDCAQMD’s Rule 223-1, it would not include the dust mitigation measures of SCAQMD’s Rule 403 by design. This impact would be significant.</p>	S	Implement Mitigation Measures 3.2-1a and 3.2-1b.	LTS
<p>Impact 3.2-3: Generate Long-Term Operational Emissions of ROG, NO_x, CO, PM₁₀, and PM_{2.5}</p> <p>Operation of the project would result in emissions of criteria pollutants from mobile, area, and energy sources. Because emissions of ROG and NO_x would not exceed EDCAQMD thresholds, operational emissions associated with the project would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.2-4: Expose Sensitive Receptors to Substantial Pollutant Concentrations (TACs and NOA)</p> <p>Based on the HRA prepared for the project, construction would produce substantial diesel PM such that EDCAQMD’s threshold for TAC cancer risk exposure of 10 in one million would be exceeded. Using this numerical threshold, the project would generate substantial emissions of TACs, causing an adverse health impact from TAC exposure. The project also would be located in an area known to contain NOA that could create public health hazards from NOA dust generated during construction. Therefore, this impact would be significant.</p>	S	Implement Mitigation Measures 3.2-1a and 3.2-1c.	LTS
<p>Impact 3.2-5: Generate Other Emissions (Such as Those Leading to Odors) Adversely Affecting a Substantial Number of People</p> <p>Odors resulting from construction-generated diesel exhaust would be temporary and would dissipate quickly because of the highly dispersive properties of diesel PM. Operation of the project would not result in the generation of nuisance odors because residential land uses are not associated with the generation of odors. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Archaeological and Historical Cultural Resources			
<p>Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources</p> <p>Locus A and Locus B of historic-era archaeological site P-9-1140/CA-ELD-3016/H3 were recommended eligible for the CRHR under Criterion 1. Similarly, it was recommended that the precontact portion of P-9-5445 be treated as a resource under CEQA. Project-related ground-disturbing activities could result in damage to these and other yet-undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. This impact would be potentially significant.</p>	<p>PS</p>	<p>Mitigation Measure 3.3-1a: Develop and Implement a Worker Environmental Awareness Training</p> <p>Green Valley Road Benefits shall retain a qualified professional archaeologist meeting the Secretary of the Interior’s Professional Qualification Standards for archaeologists to prepare a worker environmental awareness training. Training shall be provided to all construction personnel and supervisors who will have the potential to encounter and alter archaeological resources. A copy of the worker environmental awareness training shall be provided to the County before construction activities begin. The topics to be addressed in the worker environmental awareness training will include, at a minimum:</p> <ul style="list-style-type: none"> ▶ types of cultural resources located on the project site, ▶ types of evidence that indicates cultural resources might be present (e.g., glass shards, lithic scatters), ▶ what to do if a worker encounters a possible resource, ▶ what to do if a worker encounters animal bones or possible human bones, and ▶ repercussions for removing or intentionally disturbing archaeological resources. <p>Mitigation Measure 3.3-1b: For All Ground-Disturbing Construction Activities, Halt Ground Disturbance upon Discovery of Subsurface Archaeological Features</p> <p>If any precontact or historic-era subsurface archaeological features or deposits, including locally darkened soil (“midden”), that could conceal cultural deposits are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted, and a qualified professional archaeologist shall be retained to assess the significance of the find. If the qualified archaeologist determines the archaeological material to be Native American in nature, Green Valley Road Benefits and the County shall contact the appropriate Native American tribe(s) for their input on the preferred treatment of the find. If the find is determined to be significant by the archaeologist (i.e., because it is determined to constitute a unique archaeological resource), the archaeologist shall develop, and Green Valley Road Benefits shall implement, appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place (which shall be the preferred manner of mitigating impacts on archaeological sites), archival research, subsurface testing, or contiguous block unit excavation and data recovery (when it is the only feasible mitigation, and pursuant to a data recovery plan).</p>	<p>LTS</p>

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>Mitigation Measure 3.3-1c: Establish an Archaeological Buffer for P-9-1140 and P-9-5445</p> <p>Before any ground-disturbing activities are conducted in the vicinity of the resources, a qualified archaeologist, in cooperation with a tribal monitor/consultant (if available), shall establish construction fencing around the rock outcrop containing two shallow milling cups of P-9-5445. This fencing shall be established five feet from the rock outcrop. In addition, a qualified archaeologist shall establish construction fencing around the CRHR-eligible portions of P-9-1140 (Loci A and B). This fencing shall be established five feet from the rock walls. After both fencings are established, the fencings shall be checked periodically to make sure they remain in place, as determined by the archaeologist. This will ensure that the Loci A and B from P-9-1140 and the rock outcrop from P-9-5445 continue to be avoided during project-related work. The fences shall remain in place until project work in the vicinity of the resources is complete; the fence should be checked fence removal shall be overseen by the archaeologist.</p>	
<p>Impact 3.3-2: Disturb Human Remains</p> <p>Based on documentary research, no evidence suggests that any precontact or historic-era marked or unmarked human interments are present on or in the immediate vicinity of the project site or in the off-site roadway and infrastructure improvement areas. However, ground-disturbing construction activities could uncover previously unknown human remains. Compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would make this impact less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Biological Resources			
<p>Impact 3.4-1: Result in Disturbance to or Loss of Special-Status Plant Species</p> <p>Development of the project site, including ground disturbance associated with construction of residences, other buildings, roads, parking areas, and off-site improvement infrastructure (e.g., pipeline, conduit, cable), could result in direct removal of special-status plants or damage that results in the eventual loss of special-status plants if they are present on the project site. Because the loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species, this impact would be significant.</p>	S	<p>Mitigation Measure 3.4-1: Conduct Special-Status Plant Surveys, and Implement Avoidance Measures and Mitigation</p> <p>The following requirements apply to the off-site improvement areas. However, if project activities in the main portion of the project site that was surveyed in 2021 do not commence prior to spring of 2025, these requirements shall apply to the entire project site.</p> <ul style="list-style-type: none"> ▶ Before implementation of project construction activities and during the blooming period for the special-status plant species with potential to occur on the project site (Table 3.4-5), a qualified botanist shall conduct protocol-level surveys for special-status plants in the off-site improvement areas and shall resurvey the main project site following survey methods from CDFW’s Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities (CDFW 2018 or most recent version). The qualified botanist shall (1) be knowledgeable about plant taxonomy; (2) be familiar with plants of the Sierra 	LTS

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		<p>Nevada region, including special-status plants and sensitive natural communities; (3) have experience conducting floristic botanical field surveys as described in CDFW's protocol document; (4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at http://vegetation.cnps.org/); and (5) be familiar with federal and state statutes and regulations related to plants and plant collecting.</p> <p>► If special-status plants are not found, the botanist shall document the findings in a report to the applicant and El Dorado County, and no further mitigation shall be required.</p> <p>Table 3.4-5 Typical Blooming Period for Special-Status Plants That May Occur on the Project Site</p> <table border="1" data-bbox="1056 613 1827 1117"> <thead> <tr> <th>Species</th> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>Apr</th> <th>May</th> <th>Jun</th> <th>Jul</th> <th>Aug</th> <th>Sep</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> </tr> </thead> <tbody> <tr> <td>Jepson's onion</td> <td></td> </tr> <tr> <td>Big-scale balsamroot</td> <td></td> </tr> <tr> <td>Stebbins' morning-glory</td> <td></td> </tr> <tr> <td>Red Hills soaproot</td> <td></td> </tr> <tr> <td>Dwarf downingia</td> <td></td> </tr> <tr> <td>Tuolumne button-celery</td> <td></td> </tr> <tr> <td>Pincushion navarretia</td> <td></td> </tr> <tr> <td>Layne's ragwort</td> <td></td> </tr> <tr> <td>Sanford's arrowhead</td> <td></td> </tr> </tbody> </table> <p>Note: This is the published blooming period for the species across their entire range and through history. The actual blooming period for any species at a given location in a given year is variable and should be based on observations of nearby reference populations.</p> <p>Source: Data compiled by Ascent in 2024; CNPS 2023.</p> <p>► If special-status plants are found during special-status plant surveys and cannot be avoided, the applicant shall, in coordination/consultation with CDFW or USFWS, as appropriate depending on species status, develop and implement a site-specific mitigation strategy to compensate for loss of occupied habitat or</p>	Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jepson's onion													Big-scale balsamroot													Stebbins' morning-glory													Red Hills soaproot													Dwarf downingia													Tuolumne button-celery													Pincushion navarretia													Layne's ragwort													Sanford's arrowhead													
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		<p>individuals. Mitigation measures shall include, at a minimum, preserving and enhancing existing populations, establishing populations through seed collection or transplantation from the site that is to be affected, and/or restoring or creating habitat in sufficient quantities to offset loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside the project site. Habitat and individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value. The following success criteria shall be used for preserved and compensatory populations:</p> <ul style="list-style-type: none"> ▪ The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than that in the affected occupied habitat. ▪ Compensatory and preserved populations shall be self-producing. Populations would be considered self-producing when: <ul style="list-style-type: none"> • plants reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding; and • reestablished and preserved habitats contain an occupied area and flower density comparable to those in the existing occupied habitat areas in similar habitat types in the project vicinity. ▪ If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including designating responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria, including at a minimum, those listed above and other details, as determined appropriate by a qualified biologist to target the preservation of long-term viable populations. <p>Documentation of the completion of the mitigation strategy and coordination/consultation process with CDFW or USFWS shall be provided to El Dorado County before commencement of any project construction activities.</p>	
<p>Impact 3.4-2: Result in Disturbance to or Loss of Special-Status Wildlife Species and Habitat</p> <p>Project implementation would include land use conversion and development activities including ground disturbance, vegetation removal, and overall conversion of wildlife habitat, which could result in disturbance, injury, or mortality of several</p>	<p>S</p>	<p>Mitigation Measure 3.4-2a: Conduct Protocol-Level Surveys for California Red-Legged Frogs, Implement Conservation Measures, and Consult with USFWS</p> <p>If construction does not start before July 2025, the following measures shall be implemented to minimize the likelihood of take of California red-legged frogs before and during project construction:</p>	<p>LTS</p>

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<p>special-status wildlife species if present, reduced breeding productivity of these species, and loss of species habitat. This impact would be significant.</p>		<ul style="list-style-type: none"> ▶ The project applicant shall obtain a qualified biologist to repeat USFWS protocol surveys for California red-legged frog in accordance with the Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog (USFWS 2005) in the two on-site ponds, the seep, Green Spring Creek, and Allegheny Creek (i.e., within the off-site improvement area). ▶ If California red-legged frogs are not detected, then additional mitigation would not be required. If California red-legged frogs are detected, the following measures shall be implemented. <ul style="list-style-type: none"> ▪ The project applicant shall consult with USFWS under Section 7 or Section 10 of the ESA. USACE is presumed to be the federal action agency because it has jurisdiction over the aquatic habitat on the project site (see Impact 3.4-4). If it is determined, in consultation with USFWS, that take of this species could occur after implementation of the conservation measures described below, then the project applicant may be required to obtain incidental take authorization through Section 7 consultation or a Section 10 permit pursuant to the ESA. In this case, the project shall not proceed until a Biological Opinion is issued by USFWS. ▪ The following Conservation Measures shall be implemented before and during project implementation. <ul style="list-style-type: none"> • A biologist approved by USFWS (approved biologist) shall supervise and implement all conservation measures. All construction contracts shall expressly include language requiring compliance with the conservation measures. • At least 30 days before the start of project construction activities, the project applicant shall submit to USFWS the names and credentials of all biologists proposed to work on the project for approval. No project work shall begin until the project applicant has received approval from USFWS that biologists are qualified to implement the proposed conservation measures. • The approved biologist shall provide mandatory worker awareness training for all project construction personnel before work begins. The training shall describe, at a minimum, the biology, identification, and habitat needs of California red-legged frog and the conservation measures (e.g., avoidance measures, best management practices, notification protocols if California red-legged frogs are encountered) required to protect them. 	

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		<ul style="list-style-type: none"> • Amphibian exclusionary fencing shall be installed between aquatic habitat (i.e., on-site ponds, seeps, Green Spring Creek, and Allegheny Creek) and the work area to prevent California red-legged frogs from dispersing from aquatic habitat into the active work area. The fencing shall be installed under the direction of the approved biologist. The exclusion fencing shall be maintained for the duration of project construction and shall be inspected by the biologist at least once per week. • The approved biologist shall survey the development area for California red-legged frog no more than 48 hours before the start of project construction work (i.e., visual encounter surveys using walking transects of the entire development area). If California red-legged frogs are detected during the survey, project construction activities shall cease within a buffer surrounding the individual the size of which shall be established by the qualified biologist, but shall be at least 100 feet, and CDFW and USFWS shall be notified. • Each morning before work begins, the approved biologist shall inspect all vehicles, heavy equipment, and stored pipes for the presence of California red-legged frogs. • The approved biologist shall be present at work areas during initial ground-disturbing activities within 500 feet of the on-site ponds, the seep, Green Spring Creek, and Allegheny Creek and shall be available to visit work areas at all other times in the event a California red-legged frog is encountered. • The approved biologist may designate biological monitors to oversee on-site compliance with all conservation measures. The approved biologist shall ensure that monitors receive appropriate training, including training on the identification of California red-legged frogs. If this species is encountered in work areas, biological monitors shall be authorized to stop any construction activities that may pose a threat to the animal, all equipment shall be turned off, and the approved biologist shall be notified immediately. Work shall not continue until the biologist has contacted CDFW and USFWS for guidance. • Project construction activities in areas where California red-legged frog occurs shall not occur during the rainy season, when California red-legged frogs may be active (typically November through March), unless the entire development area has been graded before the onset of winter rains. For 	

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		<p>any work activities occurring after the onset of winter rains (i.e., usually mid-November, but variable from year to year), the approved biologist or biological monitor trained by the approved biologist shall be present at all times, even if ground-disturbing activities have been completed. Periodic monitoring may be acceptable, as approved by USFWS.</p> <ul style="list-style-type: none"> • If a work area is to be dewatered by pumping (e.g., the ponds), intakes shall be completely screened with mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. • Nighttime construction work shall not occur. • All food-related trash items shall be disposed of in secure, closed containers and removed regularly to reduce the potential to attract predators. After construction, all trash and construction debris shall be removed from work areas on the project site. • All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 feet from habitat adjacent to the project site that may be occupied by any life stage of the California red-legged frog. <ul style="list-style-type: none"> ▪ Additional conservation measures may be recommended by USFWS during the consultation process, and these measures shall be implemented by the project applicant and shall supersede the measures described above. <p>Documentation of compliance with this mitigation measure and the consultation process with USFWS shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-2b: Conduct Preconstruction Surveys for Coast Horned Lizard, Implement Avoidance Measures, and Relocate Individuals</p> <ul style="list-style-type: none"> ▶ Within 14 days before the initiation of any construction activity or off-site improvements, a qualified biologist familiar with the life history of coast horned lizard shall conduct a focused visual survey of habitat suitable for this species on the project site, which shall include walking linear transects of the site. ▶ If coast horned lizards are not detected during the focused survey, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County, and further mitigation shall not be required. ▶ If coast horned lizards are detected, a qualified biologist with an appropriate CDFW Scientific Collecting Permit that allows handling of reptiles shall be present during initial ground disturbance activities and shall inspect the project site before initiation of project activities. If coast horned lizards are detected, the 	

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		<p>qualified biologist shall move individuals into nearby suitable habitat that will not be disturbed by project activities.</p> <p>Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-2c: Implement Conservation Measures for Foothill Yellow-Legged Frog and Consult with CDFW and USFWS</p> <p>Before and during activities associated with pond removal (e.g., pond dewatering, other in-water work) and other project construction activities (e.g., vegetation clearing, ground disturbance, staging, heavy equipment use) within approximately 50 feet of Green Spring Creek, Allegheny Creek (i.e., within the off-site improvement area), or the ponds, the following measures shall be implemented to minimize the likelihood of take of foothill yellow-legged frogs:</p> <ul style="list-style-type: none"> ▶ Because the project site is within the range of foothill yellow-legged frog and dispersal habitat potentially suitable for this species is present on the project site (i.e., creeks), the project applicant shall obtain a qualified biologist to conduct focused surveys for foothill yellow-legged frog in accordance with <i>Visual Encounter Survey Protocol for Rana boylei in Lotic Environments</i> (Peek et al. 2017) or any official protocol subsequently released by CDFW or USFWS. Focused surveys shall be conducted when different life stages (e.g., egg masses, tadpoles, adults) of the species are most identifiable, which is during and immediately following the breeding season. To increase the likelihood of detection, at least three surveys will be conducted, including a survey during the breeding/oviposition period (April–June) prior to project implementation, a tadpole survey in the late spring/early summer (June through early August) prior to project implementation, and a survey for subadult and adult foothill yellow-legged frogs in the late summer (late August through early October) prior to project implementation. If any foothill yellow-legged frog life stage is detected during focused surveys, subsequent surveys would not be required and the project proponent would initiate consultation with CDFW and USFWS as described below. ▶ If foothill yellow-legged frogs are not detected during the focused surveys described above, within 24 hours of commencement of ground-disturbing activities and pond dewatering activities, a qualified biologist shall conduct a final pre-activity survey of Green Valley Creek and Allegheny Creek for foothill yellow-legged frogs (including egg masses, tadpoles, and adults). 	

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		<ul style="list-style-type: none"> ▶ If foothill yellow-legged frogs are not detected during the focused surveys and pre-activity survey, then additional mitigation would not be required. If foothill yellow-legged frogs are detected during any of the above-described surveys, the following measures shall be implemented. <ul style="list-style-type: none"> ▪ Consultation with USFWS under Section 7 or Section 10 of the ESA shall occur. USACE is presumed to be the federal action agency because it has jurisdiction over the aquatic habitat on the project site (see Impact 3.4-4). If it is determined, in consultation with CDFW and USFWS, that take of foothill yellow-legged frog could occur after implementation of the conservation measures described below, then the project applicant may be required to obtain incidental take authorization through Section 7 consultation or a Section 10 permit pursuant to the ESA and through Section 2081 of the California Fish and Game Code pursuant to CESA. In this case, the project shall not proceed until a Biological Opinion is issued by USFWS. ▶ The following Conservation Measures shall be implemented before and during project implementation. <ul style="list-style-type: none"> ▪ A biologist approved by CDFW and USFWS (approved biologist) shall supervise and implement all conservation measures. All construction contracts shall expressly include language requiring compliance with the conservation measures. ▪ At least 30 days before the start of project construction activities, the project applicant shall submit to CDFW and USFWS the names and credentials of all biologists proposed to work on the project for approval. No project work shall begin until the project applicant has received approval from CDFW and USFWS that biologists are qualified to implement the proposed conservation measures. ▪ The approved biologist shall provide mandatory worker awareness training for all project construction personnel before work begins. The training shall describe, at a minimum, the biology, identification, and habitat needs of foothill yellow-legged frogs and the conservation measures (e.g., avoidance measures, best management practices, notification protocols if foothill yellow-legged frogs are encountered) required to protect them. ▪ Amphibian exclusion fencing shall be installed between aquatic habitat (i.e., Green Spring Creek, and Allegheny Creek) and the work area to prevent foothill yellow-legged frogs from dispersing from aquatic habitat into the active work area. The fencing shall be installed under the direction of the 	

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		<p>approved biologist. The exclusion fencing shall be maintained throughout the life of the project construction and shall be inspected by the biologist at least once per week.</p> <ul style="list-style-type: none"> ▪ The approved biologist shall survey the development area for foothill yellow-legged frogs no more than 48 hours before the start of activities associated with pond removal (e.g., pond dewatering, other in-water work) and other project construction activities (e.g., vegetation clearing, ground disturbance, staging, heavy equipment use) within approximately 50 feet of Green Spring Creek, Allegheny Creek, or the ponds. If foothill yellow-legged frogs are detected during the survey, all project construction activities shall cease within a buffer surrounding the individual the size of which shall be established by the qualified biologist, but shall be at least 100 feet, and CDFW and USFWS shall be notified. • Each morning before work begins, the approved biologist shall inspect all vehicles, heavy equipment, and stored pipes for the presence of foothill yellow-legged frogs. • The approved biologist shall be present at work areas during all initial ground-disturbing activities within 50 feet of Green Spring Creek, Allegheny Creek, and the ponds and shall be available to visit work areas at all other times in the event that a foothill yellow-legged frog is encountered. • The approved biologist may designate biological monitors to oversee on-site compliance with all conservation measures. The approved biologist shall ensure that monitors receive appropriate training, including training on the identification of foothill yellow-legged frogs. If this species is encountered in work areas, biological monitors shall be authorized to stop any construction activities that may pose a threat to the animal, all equipment shall be turned off, and the approved biologist shall be notified immediately. Work shall not continue until the biologist has contacted CDFW and USFWS for guidance. • If a work area is to be dewatered by pumping (e.g., the ponds), intakes shall be completely screened with mesh not larger than 0.2 inch to prevent foothill yellow-legged frogs from entering the pump system. • Nighttime construction work shall not occur. • All food-related trash items shall be disposed of in secure, closed containers and removed regularly to reduce the potential to attract 	

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		<p>predators. After construction, all trash and construction debris shall be removed from work areas on the project site.</p> <ul style="list-style-type: none"> • All refueling, maintenance, and staging of equipment and vehicles shall occur at least 50 feet from habitat adjacent to the development area (i.e., creeks) that may be occupied by any life stage of foothill yellow-legged frog. <p>▶ Additional conservation measures may be recommended by CDFW or USFWS during the consultation process, and these measures shall be implemented by the project applicant, and shall supersede the measures described above.</p> <p>Documentation of compliance with this mitigation measure and the consultation process with CDFW and USFWS shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-2d: Conduct Preconstruction Surveys for Western Pond Turtle, Implement Avoidance Measures, and Relocate Individuals</p> <p>▶ Western pond turtles are known to occupy the ponds on the project site. Within 24 hours of commencement of ground-disturbing activities and pond dewatering activities, a qualified biologist familiar with the life history of western pond turtle and experienced in performing surveys for western pond turtle shall conduct a focused survey of aquatic and upland habitat suitable for the species on the project site, including segments of creeks that may be used as migration corridors for the species (i.e., Green Spring Creek, Allegheny Creek). The qualified biologist shall inspect the project site for western pond turtles, as well as suitable terrestrial nesting or overwintering habitat (i.e., burrows).</p> <p>▶ If a western pond turtle nest is observed within the project site during the preconstruction survey, the nest shall be fenced off and avoided until the eggs hatch or the nest is no longer active, as determined by a qualified biologist. The fenced area shall be open on one side with the opening facing the nearest aquatic habitat so that hatchling turtles can freely travel from the nest to the aquatic habitat. A qualified biologist shall monitor the nest area to ensure that hatchlings do not disperse into the construction area. Monitoring shall occur until the qualified biologist determines that the nest is no longer be active. If any hatchlings are observed on the project site, relocation of hatchlings shall occur as described in the encounter protocol below.</p> <p>▶ A qualified biologist shall be present during all pond dewatering activities and initial ground-disturbing activities to monitor these activities. If a western pond turtle is encountered, work shall be suspended in a 100-foot radius of the animal</p>	

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		<p>until the animal leaves the project site on its own volition. If necessary, a qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation, which shall include, but not be limited to, obtaining a valid and applicable CDFW Scientific Collecting Permit. Any worker who inadvertently injures or kills a western pond turtle or who finds a western pond turtle dead, injured, or entrapped must immediately report the incident to the applicant, who must immediately notify CDFW. Entrapped western pond turtles shall be relocated by a qualified biologist with a valid and applicable CDFW Scientific Collecting Permit if approved by CDFW.</p> <ul style="list-style-type: none"> ▶ Because western pond turtle is proposed for listing under the ESA, if the species is listed before the completion of project construction activities that could result in injury to or mortality of turtles (i.e., pond dewatering, ground disturbance, grading, land conversion), then the project applicant may be required to consult with USFWS under Section 7 or Section 10 of the ESA. USACE is presumed to be the federal action agency because it has jurisdiction over the aquatic habitat on the project site (see Impact 3.4-4). If it is determined, in consultation with USFWS, that take of this species could occur after implementation of the measures described above, then the project applicant may be required to obtain incidental take authorization through Section 7 consultation or a Section 10 permit pursuant to the ESA. In this case, the project shall not proceed until a Biological Opinion is issued by USFWS. <ul style="list-style-type: none"> ▪ Any conservation measures developed in coordination with USFWS during the course of formal or informal consultation under Section 7 or during Section 10 consultation would supersede the measures listed here. ▪ Such conservation measures could include, but would not be limited to, seasonal work restrictions for initial ground disturbance, preconstruction surveys by a qualified biologist, installation of wildlife exclusion fencing, 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; work with a local land trust to preserve land; or any other method acceptable to USFWS. ▶ If USFWS determines that listing of western pond turtle under ESA is not warranted, or the species is not listed prior to project completion, then the above measures related to consultation with USFWS would not be applicable. 	

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Generations at Green Valley Project Draft EIR

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>Documentation of compliance with this mitigation measure and the coordination/consultation process with CDFW and USFWS shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-2e: Conduct Take Avoidance Survey for Burrowing Owl, Implement Avoidance Measures, and Compensate for Loss of Occupied Burrows</p> <ul style="list-style-type: none"> ▶ A qualified biologist shall conduct a focused survey for burrowing owls in accessible areas of habitat suitable for the species on and within 500 feet of the project site and off-site improvements no less than 14 days before initiating ground-disturbing activities using survey methods described in Appendix D of the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). Inaccessible areas (e.g., adjacent private property) will not be surveyed directly, but the biologist may use binoculars or a spotting scope to survey these areas. ▶ If no occupied burrows are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and El Dorado County, and no further mitigation shall be required. ▶ If an active burrow is found within 500 feet of pending construction activities that would occur during the nonbreeding season (September 1 through January 31; i.e., the only season where burrowing owls are expected to occur on the project site), the applicant shall establish and maintain a minimum protection buffer of 164 feet around the occupied burrow throughout construction. The actual buffer size shall be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation, and may be as large as 1,640 feet (CDFW 2012). The protection buffer may be adjusted if, in coordination with CDFW, a qualified biologist determines that an alternative buffer would not disturb burrowing owl use of the burrow because of particular site features or other buffering measures. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, a burrowing owl exclusion plan shall be developed, as described in Appendix E of the CDFW Staff Report. Burrowing owls shall not be excluded from occupied burrows until the project burrowing owl exclusion plan is approved by CDFW. The exclusion plan shall include a compensatory habitat mitigation plan (see below). ▶ If burrowing owls are evicted from burrows and the burrows are destroyed by implementation of project activities, the applicant shall mitigate the loss of occupied habitat in accordance with guidance provided in the CDFW Staff 	

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		<p>Report, which states that permanent impacts on nesting, occupied and satellite burrows, and burrowing owl habitat (i.e., grassland habitat with suitable burrows) shall be mitigated such that habitat acreage and the number of burrows are replaced through permanent conservation of comparable or better habitat with similar vegetation communities and burrowing mammals (e.g., ground squirrels) present to provide for nesting, foraging, wintering, and dispersal. The applicant shall retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards:</p> <ul style="list-style-type: none"> ▪ Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat; disturbance levels; potential for conflicts with humans, pets, and other wildlife; density of burrowing owls; and relative importance of the habitat to the species throughout its range. ▪ If feasible, mitigation lands shall be provided adjacent or proximate to the project site so that displaced owls can relocate with reduced risk of injury or mortality. The feasibility of providing mitigation adjacent or proximate to the project site depends on availability of sufficient habitat to support displaced owls that may be preserved in perpetuity. ▪ If habitat suitable for burrowing owl is not available for conservation adjacent or proximate to the project site, mitigation lands can be secured off-site and shall aim to consolidate and enlarge conservation areas outside planned development areas and within foraging distance of other conservation lands. Mitigation may also be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. Alternative mitigation sites and acreages may also be determined in coordination with CDFW. ▪ If burrowing owl habitat mitigation is completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and whether the numbers are maintained over time. Measures of success, as suggested in the CDFW Staff Report, shall include site tenacity, the number 	

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		<p>of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.</p> <p>Documentation of compliance with this mitigation measure and the coordination process with CDFW shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-2f: Conduct Focused Surveys for Special-Status Birds, Nesting Raptors, and Other Native Nesting Birds, and Implement Protective Buffers</p> <ul style="list-style-type: none"> ▶ To minimize the potential for loss of special-status bird species, raptors, and other native birds, project activities (e.g., tree removal, vegetation clearing, ground disturbance, staging, construction of off-site improvements) shall be conducted during the nonbreeding season (approximately September 1 through January 31, as determined by a qualified biologist), if feasible. If project activities are conducted during the nonbreeding season, no further mitigation shall be required. ▶ Within 7 days before the onset of project activities during the breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys shall conduct focused surveys for special-status birds, other nesting raptors, and other native birds. Surveys shall be conducted in accessible areas within 1 mile of the project site for golden eagle, 0.25 mile of the project site for white-tailed kite, 500 feet of the project site for other raptor species and special-status birds, and 50 feet of the project site for non-raptor common native bird nests. ▶ If no active nests are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and El Dorado County, and no further mitigation shall be required. ▶ If active nests are found, impacts on nesting birds shall be avoided by establishing appropriate buffers around active nest sites identified during focused surveys to prevent disturbance to the nest. Project activity shall not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. Buffers typically shall be 1 mile for golden eagle, 0.25 mile for white-tailed kite, and 500 feet for other raptors. Buffer size for non-raptor bird species shall be determined by a qualified biologist. Factors to be considered for determining buffer size shall include presence of natural buffers provided by vegetation or topography, nest height 	

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		<p>above the ground, baseline levels of noise and human activity, species sensitivity, and proposed project activities. Generally, buffer size for these species shall be at least 500 feet for tricolored blackbird colonies, 100 feet for other special-status bird species, and at least 20 feet for common bird species. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment shall not be likely to adversely affect the nest. Any buffer reduction for a special-status bird species shall require coordination with CDFW. Daily monitoring of the nest by a qualified biologist during project activities shall be required if the activity has potential to adversely affect the nest as determined by the qualified biologist, the buffer has been reduced, or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist.</p> <p>Documentation of compliance with this mitigation measure and any required coordination with CDFW shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-2g: Implement Limited Operating Period, Conduct Focused Surveys, and Implement Avoidance Measures for Crotch’s Bumble Bee</p> <ul style="list-style-type: none"> ▶ Initial ground-disturbing work (e.g., grading, vegetation removal, staging, construction of off-site improvements) shall take place between August 15 and March 15, if feasible, to avoid impacts on nesting Crotch’s bumble bees. ▶ Regardless of the feasibility of the above limited operating period, a qualified biologist familiar with bumble bees of California and experienced using survey methods for bumble bees shall conduct a habitat assessment and focused survey for Crotch’s bumble bee before the start of any ground-disturbing activities. Surveys shall be performed when Crotch’s bumble bee is most likely to be identified, typically from April through August (i.e., the colony active period) when floral resources and ideal weather conditions are present, and shall follow the methods in Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). Surveys shall be conducted during the colony active period closest to the start of planned construction activities. Survey results shall be submitted to the applicant and El Dorado County no less than 7 days before construction begins. ▶ The applicant shall submit a survey report to CDFW within 1 month of survey completion and shall notify CDFW and El Dorado County within 24 hours if Crotch’s bumble bees are detected. 	

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		<p>▶ If Crotch’s bumble bees are detected during the focused survey, appropriate avoidance measures shall be implemented. Avoidance measures shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> ▪ Protective buffers shall be implemented around active nesting colonies or overwintering queens until these sites are no longer active. A qualified biologist, in coordination with CDFW, shall determine the appropriate buffer size to protect nesting colonies or overwintering queens; however, the buffer shall be a minimum of 50 feet. <p>If impacts on Crotch’s bumble bee cannot be avoided, the applicant shall obtain an incidental take permit (ITP) from CDFW and shall implement all avoidance measures included in the ITP.</p> <p>Documentation of compliance with this mitigation measure and any required coordination with CDFW or acquisition of an ITP shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-2h: Conduct Surveys for Milkweed Plants, Monarch Eggs, and Monarch Caterpillars, and Implement Avoidance Measures</p> <p>▶ If construction activities (e.g., ground disturbance, vegetation removal, staging) on the project site occur during the period when milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late September) a qualified biologist shall survey the project site for milkweed plants. If milkweed plants are found, a qualified biologist shall inspect the milkweed plants for the presence of monarch eggs or caterpillars no more than 14 days before plant removal. If monarch eggs or caterpillars are detected, the milkweed plants shall be avoided until they are no longer being used by monarch caterpillars, as confirmed by a qualified biologist, if feasible. If no eggs or caterpillars are detected, no additional protection measures are necessary.</p> <p>Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-2i: Conduct Focused American Badger Surveys, and Establish Protective Buffers</p> <p>▶ Within 14 days before commencement of project activities, a qualified wildlife biologist familiar with American badger and experienced using survey methods for the species shall conduct focused surveys of habitat suitable for the species on the project site to identify any American badger dens.</p>	

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		<ul style="list-style-type: none"> ▶ If occupied dens are not found, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County, and further mitigation shall not be required. ▶ If occupied dens are found, impacts on active badger dens shall be avoided by establishing exclusion zones around all active badger dens, the size of which shall be determined by the qualified biologist, but shall be a minimum of 100 feet. No project activities (e.g., vegetation removal, ground disturbance, staging) shall occur within the exclusion zone until denning activities are complete or the den is abandoned, as confirmed by a qualified biologist. The qualified biologist shall monitor each den once per week to track the status of the den and to determine when it is no longer occupied. When it is no longer occupied, project activities within the exclusion zone may occur. <p>Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-2j: Conduct Focused Bat Surveys, and Implement Avoidance Measures</p> <ul style="list-style-type: none"> ▶ Within 14 days before any tree removal or removal of abandoned buildings, a qualified biologist familiar with bats and bat ecology, and experienced in conducting bat surveys, shall conduct surveys for bat roosts in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, foliage, buildings) on and adjacent to the project site. ▶ If no evidence of bat roosts is found, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County, and no further study shall be required. ▶ If evidence of bat maternity roosts or hibernacula is observed, the species and number of bats using the roost shall be determined by a qualified biologist using noninvasive methods. Bat detectors (i.e., acoustic monitoring) or evening emergence surveys shall be used if deemed necessary to supplement survey efforts by the qualified biologist. ▶ A no-disturbance buffer of 250 feet shall be established around active pallid bat, Townsend’s big-eared bat, or western red bat maternity roosts or hibernacula, as well as substantial maternity roosts or hibernacula of other bat species considered to be a wildlife nursery by the qualified biologist, and project activities shall not occur within this buffer until after the roosts are unoccupied as determined by a qualified biologist. 	

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		<p>► If roosts of pallid bat, Townsend’s big-eared bat, or western red bat are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion methods, and roost removal procedures shall be developed in coordination with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) resulting from the project shall be replaced in coordination with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during coordination with CDFW, replacement roosts shall be implemented before bats are excluded from the original roost sites. After the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site by a qualified biologist, the roost tree or building may be removed. For roost trees, a two-step tree removal process supervised by a qualified biologist shall be implemented, including removal of all branches that do not provide roosting habitat on the first day, and removal of the remaining portion of the tree on the following day. Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.</p>	
<p>Impact 3.4-3: Result in Degradation or Loss of Riparian Habitat or Other Sensitive Natural Communities</p> <p>Project implementation would result in ground disturbance, vegetation removal, and land development, which also would result in removal of riparian habitat and sensitive natural communities. This impact would be significant.</p>	<p>S</p>	<p>Mitigation Measure 3.4-3a: Compensate for Loss of Valley Needlegrass Grassland</p> <p>The following measures shall be implemented before vegetation removal or ground-disturbing activities:</p> <ul style="list-style-type: none"> ► The applicant shall compensate for unavoidable loss of valley needlegrass grassland on the project site such that no net loss of habitat function occurs by: <ul style="list-style-type: none"> ▪ restoring degraded valley needlegrass grassland outside the project site or on the project site at a ratio sufficient to offset the loss of habitat function (at least 1:1) or ▪ preserving existing valley needlegrass grassland of equal or better value to the sensitive natural community affected through a conservation easement at a ratio sufficient to offset the loss of habitat function (at least 1:1). ► Prepare and implement a Compensatory Mitigation Plan that includes the following elements: 	<p>LTS</p>

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<ul style="list-style-type: none"> ■ For preserving existing habitat outside the project site in perpetuity, the Compensatory Mitigation Plan shall include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The applicant shall provide evidence in the plan that the necessary mitigation has been implemented or that the applicant has entered into a legal agreement to implement it and that compensatory habitat shall be preserved in perpetuity. ■ For restoring or enhancing habitat outside the project site, the Compensatory Mitigation Plan shall include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function (below) has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat. ■ The following success criteria shall be required to maintain habitat function for preserved and compensatory populations: <ul style="list-style-type: none"> ● The extent of occupied area and density of plants associated with the sensitive natural community (number of plants per unit area) in compensatory habitats shall be equal to or greater than the affected occupied habitat. ● Compensatory and preserved sensitive natural communities shall be self-producing. Populations would be considered self-producing when: <ul style="list-style-type: none"> - plants associated with sensitive natural communities reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding, and - reestablished and preserved habitats contain an occupied area and density comparable to existing occupied habitat areas in similar habitat types in the project vicinity. <p>Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.</p> <p>Mitigation Measure 3.4-3b: Compensate for Loss of Riparian Habitat</p> <p>The following measures shall be implemented before vegetation removal or ground-disturbing activities:</p>	

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		<ul style="list-style-type: none"> ▶ A Streambed Alteration Notification shall be submitted to CDFW, pursuant to Section 1602 of the California Fish and Game Code. If proposed project activities are determined to be subject to CDFW jurisdiction, the applicant shall abide by the measures to protect fish and wildlife resources required by any executed agreement before any vegetation removal or activity that may affect the resource. Measures to protect fish and wildlife resources shall include, at a minimum, a combination of the following mitigation. ▶ The applicant shall compensate for the loss of Fremont cottonwood riparian woodland habitat such that no net loss of habitat function and values occurs by: <ul style="list-style-type: none"> ▪ Restoring and preserving degraded riparian habitat outside the project site or on the project site (at least 1:1); ▪ purchasing riparian habitat credits at a CDFW-approved mitigation bank (at least 1:1); or ▪ preserving existing riparian habitat of equal or better value to the affected riparian habitat through a conservation easement at a ratio sufficient to offset the loss of riparian habitat function (at least 1:1). ▶ The applicant shall prepare and implement a Compensatory Mitigation Plan that includes the following elements: <ul style="list-style-type: none"> ▪ For preserving existing riparian habitat outside the project site in perpetuity, the Compensatory Mitigation Plan shall include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The applicant shall provide evidence in the plan that the necessary mitigation has been implemented or that the applicant has entered into a legal agreement to implement it and that compensatory habitat shall be preserved in perpetuity. ▪ For restoring or enhancing riparian habitat outside the project site, the Compensatory Mitigation Plan shall, at a minimum, include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat. ▪ Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the applicant (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above. 	

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		Documentation of compliance with this mitigation measure and receipt of a Lake and Streambed Alteration Agreement from CDFW (or a letter from CDFW stating that such an Agreement is not required) shall be provided to El Dorado County before commencement of any project construction activities.	
<p>Impact 3.4-4: Result in Degradation or Loss of State or Federally Protected Wetlands</p> <p>Project implementation would result in ground disturbance, vegetation removal, and land development, which would result in removal (fill) of state and federally protected wetlands. This impact would be significant.</p>	S	<p>Mitigation Measure 3.4-4: Obtain Permits for Impacts on Wetlands</p> <ul style="list-style-type: none"> ▶ Authorization for fill of waters of the United States shall be secured from USACE and the RWQCB through the permitting processes for Clean Water Act Sections 401 and 404. In association with Section 404 and before the issuance of any grading permit, Section 401 Water Quality Certification from the Central Valley RWQCB shall be obtained. For impacts on waters of the state that are not also waters of the United States and are therefore not covered by the 401 Water Quality Certification, the applicant shall apply to the RWQCB for Waste Discharge Requirements following the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Water Resources Control Board 2021). Any waters of the United States or waters of the state that are affected by the project shall be replaced on a no-net-loss basis in accordance with the applicable USACE and State Water Resources Control Board mitigation standards in place at the time of construction. ▶ Before commencing activity that may divert the natural flow or otherwise alter the bed or bank of any lake or stream on the project site (e.g., Green Spring Creek), the applicant shall notify CDFW, through issuance of a Lake and Streambed Alteration Notification (notification). If CDFW determines, based on the notification, that project activities trigger the need for a Lake and Streambed Alteration Agreement, the project applicant shall obtain an agreement from CDFW before the activity commences. The applicant shall conduct project construction activities in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect fish and wildlife resources, when working within the bed or bank of waterways or in riparian habitats associated with those waterways. These measures may include, but not be limited to, demarcation of the construction area, biological monitoring, environmental awareness training for construction crews, and compensatory measures (e.g., restoration, long-term habitat management). <p>Agreement from CDFW, as well as wetland permitting from USACE, shall be provided to El Dorado County before commencement of any project construction activities.</p>	LTS

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El Dorado County

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<p>Impact 3.4-5: Interfere with Wildlife Movement Corridors or Impede the Use of Wildlife Nurseries</p> <p>Development of the project site would result in removal of natural habitat that has been identified as an ECA. Natural habitat on the project site may also provide roosting habitat for common bat species (i.e., in large oak trees). The project site likely does not function as a critical wildlife movement corridor, and the most significant feature contributing to habitat connectivity, Green Spring Creek, would be largely incorporated into open space areas and potentially restored after removal of human-made instream ponds. Impacts on bat roosts shall be addressed through mitigation described for impact 3.4-2. Therefore, the impact related to wildlife movement corridors and wildlife nurseries would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.4-6: Conflict with Local Policies and Ordinances</p> <p>Project implementation would result in removal of oak trees and oak woodlands and development in a rare plant mitigation area established by the County, which could result in conflict with the El Dorado County ORMP. This impact would be significant.</p>	S	<p>Mitigation Measure 3.4-6a: Compensate for Removal of Protected Oak Trees and Oak Woodlands Consistent with the El Dorado County ORMP</p> <p>Before removing oak trees or oak woodlands on the project site, the applicant shall implement the following measures:</p> <ul style="list-style-type: none"> ▶ The applicant shall submit a final version of the Oak Resources Technical Report and an Oak Resources Code Compliance Certificate to the El Dorado County Community Development Services Planning and Building Department that address all on-site and off-site oak tree and oak woodland impacts. ▶ Upon application approval, the applicant shall compensate for loss of protected oak trees and oak woodlands through any combination of in-lieu fees, conservation, and/or replanting, as required under the ORMP. <p>Mitigation Measure 3.4-6b: Compensate for Impacts through In-Lieu Rare Plant Mitigation Fee Payment Consistent with the El Dorado County Code</p> <p>Before issuance of a building permit, the project applicant shall pay the current Rare Plant Mitigation Fee for the portions of the project area within Mitigation Area 1. This fee is currently \$885 per dwelling unit equivalent, but the fee may change before building permit application.</p>	LTS
Energy			
<p>Impact 3.5-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operation</p> <p>Construction activities associated with the project would be temporary and would not increase long-term energy or fuel demand. Regarding operation, the project would comply with the energy efficiency requirements of both the 2022 CalGreen Code and the 2022 California Energy Code. However, because the project would</p>	S	Implement Mitigation Measures 3.7-1a and 3.14-2.	LTS

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<p>include natural gas utilities and would exceed the County's VMT threshold (resulting in greater fuel consumption than if project VMT were to be below the threshold), the project would increase the consumption of fossil fuels relative to existing conditions. This impact would be significant.</p>			
<p>Impact 3.5-2: Conflict With or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency</p> <p>Because natural gas is assumed to be included in the design and operation of the project, the project would conflict with the building decarbonization and fossil fuel reduction goals of both the 2022 Scoping Plan and the Energy Efficiency Action Plan and obstruct the implementation of these plans to achieve the State's goals of reducing fossil fuel consumption and increasing energy efficiency. Therefore, this impact would be significant.</p>	S	Implement Mitigation Measures 3.7-1a, 3.7-1b, and 3.14-2.	LTS
<p>Geology, Soils, and Paleontological Resources</p>			
<p>Impact 3.6-1: Result in Loss, Injury, or Death Resulting from Seismic Hazards</p> <p>The county is identified as having relatively low potential for seismic activity and a review of published geologic maps, in the General Plan EIR, and the Geotechnical Study confirm that project implementation is not likely to cause potential adverse effects associated with strong seismic shaking. Compliance with CBC requirements would ensure that potential adverse effects related to strong seismic shaking would be further minimized. In addition, the project site is not located on land prone to liquefaction or landslides, and due to the project site's underlying geology and slope stability, the potential damage related to liquefaction is considered negligible. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.6-2: Result in Substantial Soil Erosion or the Loss of Topsoil</p> <p>Because of the natural topographical gradients of the project site and proposed construction grading activities, soil erosion from development of the project's residential uses may occur on the site. However, compliance with SWRCB's Construction General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order WQ 2022-0057-DWQ) and County Code of Ordinances Chapter 110.14 (Grading, Erosion, and Sediment Control) would ensure that impacts related to substantial erosion or the loss of topsoil during construction, operation, and maintenance would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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<p>Impact 3.6-3: Be Located on Expansive Soil, Creating Substantial Direct or Indirect Risks to Life and Property or 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, Liquefaction, or Collapse</p> <p>Soil exploration and index testing analysis conducted for the Geotechnical Study confirmed that the soils on-site are nonexpansive soils. The project site is not located on an unstable geologic unit, and the Geotechnical Study found no evidence of slope instability. The project site is also not located on land susceptible to liquefaction or landslides, and due to the distance to the nearest lake and creek, lateral spreading also is considered negligible. As part of the County’s project approval and review process, a site-specific, project-specific final geotechnical report would be prepared. Any recommendations related to soil compaction or unstable soils would be incorporated into the project. As a result, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.6-4: Have Soils Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Wastewater Disposal Systems Where Sewers Are Not Available for the Disposal of Wastewater</p> <p>One existing residence onsite would be demolished for the construction of the project, and its septic system would be properly abandoned in accordance with County requirements. A total of 7 five-acre lots proposed under the project would have on-site wastewater disposal systems. A on-site septic system analysis has been prepared for the project and the project would be subject to County Code of Ordinances Chapter 110.32 and the County’s OWTS Manual, both of which provide performance standards for OWTS to protect the environment and public health. Nevertheless, the Septic Study recommended that additional testing be completed to confirm the suitability of proposed wastewater disposal systems onsite. This impact would be significant.</p>	S	<p>Mitigation Measure 3.6-4: Complete Additional Percolation Exploration</p> <p>Prior to approval of the final map, the project applicant shall complete a septic feasibility analysis for proposed lots 2, 5, 6, and 7 to confirm that the proposed wastewater disposal areas are suitable for lots not covered during the original exploration.</p>	LTS
<p>Impact 3.6-5: Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature</p> <p>The project area is underlain by metavolcanic and ultramafic rocks of the Foothills Melange-Ophiolite Terrane of Late Paleozoic to Mesozoic age, limiting the potential for paleontological resources, which typically are found in sedimentary geologic conditions. Nevertheless, no comprehensive paleontological studies have been conducted in the county, and as a result, no information is available regarding the sensitivity of certain areas. As identified in the project site geotechnical investigations, the site consists of geologic conditions common in the</p>	S	<p>Mitigation Measure 3.6-5a: Educate Construction Personnel in Recognizing Fossil Materials</p> <p>Before construction begins, the project applicant shall ensure that all construction workers who will be on-site during construction of the project receive training provided by a qualified paleontologist meeting the Secretary of the Interior’s qualifications to ensure that construction personnel can correctly identify fossilized materials in the event of inadvertent discovery. Proof of training shall be submitted to the County.</p>	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>region and does not contain unique geologic features. Although it is anticipated that the project does not contain unique paleontological resources, the potential to discover paleontological resources onsite still exists. This impact would be significant.</p>		<p>Mitigation Measure 3.6-5b: Implement Procedures for the Inadvertent Discovery of Paleontological Resources</p> <p>If any paleontological resources are encountered during development of the project, the construction contractor shall ensure that all activities in the immediate area of the find are halted and that the applicant and County are informed. The applicant shall then retain a qualified paleontologist meeting the Secretary of the Interior’s qualifications to evaluate the discovery, prepare a report evaluating the discovery, and include recommendations in the report pursuant to the guidelines established by the Society of Vertebrate Paleontology, including, if applicable, development and implementation of a paleontological resource impact mitigation program for treatment of the discovery.</p>	
<p>Greenhouse Gas Emissions and Climate Change</p>			
<p>Impact 3.7-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment or Conflict With an Applicable Plan, Policy or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases?</p> <p>The project would result in GHG emissions during both construction and operational phases. Project-generated construction emissions would not exceed SMAQMD’s 1,100 MTCO₂ per year screening level; however, the project would not comply with the Tier 1 BMPs recommended by SMAQMD regarding electric development (BMP 1) and EV charging (BMP 2). Therefore, the project would be required to meet the criteria of SMAQMD’s Tier 2 BMP 3 which requires that the project meets the VMT reduction targets directed by OPR as legislated by SB 743. The project would not meet this target. For these reasons, this impact would be significant.</p>	<p>S</p>	<p>Implement Mitigation Measure 3.14-2: Implement a Transportation Demand Management Program</p> <p>Mitigation Measure 3.7-1a: Install CalGreen Tier 2-Compliant On-Site Electric Vehicle Charging Infrastructure</p> <p>Prior to the issuance of construction permits, the project applicant shall incorporate the appropriate number of EV charging equipment to meet the Tier 2 requirements of Part 6 of the Title 24 California Building Code (CalGreen code) in effect at the time of project construction. Requirements by project component, are as follows:</p> <p>Residential Parking:</p> <p>For each dwelling unit, a dedicated 208/240-volt branch circuit shall be installed in the raceway (i.e., the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) required by Section 4.106.4.1 of the CalGreen Code. The branch circuit and associated overcurrent protective device shall be rated at 40 amperes minimum. Other electrical components, including a receptacle or blank cover, related to this section shall be installed in accordance with the California Electrical Code.</p> <p>Clubhouse Parking:</p> <p>Based on the total number of parking spaces included in the design of the proposed clubhouse, the applicant shall use Table A5.106.5.3.2 in Appendix A5 “Nonresidential Voluntary Measures” of the CalGreen Code to determine the number of EV capable spaces required for the club house land use in order to meet the Tier 2 requirement. The applicant must install the appropriate number of EV capable spaces to comply with the required number of spaces determined by Table A5.106.5.3.2.</p>	<p>SU</p>

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>Mitigation Measure 3.7-1b: Decarbonize Residential and Clubhouse Buildings or Purchase Offsets</p> <p>The applicant shall ensure that the project would be constructed without natural gas infrastructure. The County shall be responsible for ensuring that the applicant has met the conditions of this measure prior to the issuance of permits, as demonstrated in plan submittals for County review and approval.</p> <p>OR, if the implementation of the above is deemed to be economically or technically infeasible, the project at a minimum shall have all-electric appliances (e.g., heating and cooling systems, stoves/ovens, dishwashers, and water heaters) AND purchase carbon offsets to minimize the project’s emissions from natural gas combustion as detailed below.</p> <p>To the degree that a project relies on GHG mitigation measures, the County, EDCAPCD, and CARB recommend that lead agencies prioritize on-site design features, such as those listed under Mitigation Measures 3.7-1a and 3.7-1b and direct investments in GHG reductions within the vicinity of the project site to provide potential air quality and economic co-benefits locally. While emissions of GHGs and their contribution to climate change is a global problem, emissions of air pollutants, which have an adverse localized effect, are often emitted from similar activities that generate GHG emissions (i.e., mobile, energy, and area sources). For example, direct investment in a local building retrofit program could pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project. Other examples of local direct investments include financing the installation of regional EV charging stations, paying for electrification of public school buses, and investing in local urban forests. These investments would not only achieve GHG reductions but would also directly improve regional and local ambient air quality. However, to adequately mitigate GHG emissions by 27,120 MTCO_{2e} (30 years of GHG emissions), it is critical that any such investments in actions to reduce GHG emissions meet the criteria of being 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). Such credits shall be based on protocols approved by the California Air Resources Board (CARB), consistent with Section 95972 of Title 17 of the California Code of Regulations. 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</p>	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) through the California Air Pollution Control Officers Association’s (CAPCOA’s) GHG Rx and EDCAPCD.</p> <p>Prior to issuing building permits for project development, the County shall confirm that the project developer has fully offset the project’s remaining GHG emissions from natural gas combustion by relying upon one of the following compliance options, or a combination thereof:</p> <ul style="list-style-type: none"> ▶ demonstrate that the project developer has directly undertaken or funded activities that reduce or sequester GHG emissions that are estimated to result in GHG reduction credits (if such programs are available), and retire such GHG reduction credits in a quantity equal to the project’s remaining GHG emissions; ▶ provide a guarantee that it shall retire carbon credits issued in connection with direct investments (if such programs exist at the time of building permit issuance) in a quantity equal to the modified Phase 2 Project’s remaining GHG emissions; ▶ undertake or fund direct investments (if such programs exist at the time of building permit issuance) and retire the associated carbon credits in a quantity equal to the modified Phase 2 Project’s remaining GHG emissions; or ▶ if it is impracticable to fully offset the project’s GHG emissions through direct investments or quantifiable and verifiable programs do not exist, the project developer or its designee may purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry in a quantity equal to the project’s remaining GHG Emissions. 	

Hazards and Hazardous Materials

<p>Impact 3.8-1: Create a Significant Hazard through Routine Transport, Use, or Disposal of Hazardous Materials or Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment</p> <p>Project construction activities and subsequent operation would involve hazardous materials. All hazardous materials used would be subject to the federal, state, and local requirements that provide protection measures to avoid impacts to the environment and public health. However, the project would require demolition of existing structures and other construction activities on the site that may contain asbestos building materials, lead paint, and other hazardous materials. This impact would be significant.</p>	<p>S</p>	<p>Mitigation Measure 3.8-1a: Remove Pit Debris and Conduct a Hazardous Building Materials Survey</p> <p>As part of site preparation for construction, debris identified in the pit near the residence at 1856 Green Valley Road will be removed and disposed of at a permitted landfill facility. Prior to any demolition of structures, A hazardous building materials survey shall be conducted by a qualified and licensed professional for all structures proposed for demolition under the project. All loose and peeling lead-based paint and asbestos-containing material (ACM) shall be abated by certified contractor(s) in accordance with the U.S. Environmental Protection Agency’s asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements, which specify mandatory work practices to be</p>	<p>LTS</p>
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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>followed during demolition and renovation of all structures, installations, and buildings, which protect the public and environment by minimizing the release of asbestos fibers during renovation and demolition activities (El Dorado County 2024b; USEPA 2024). All other hazardous materials shall be removed from buildings prior to demolition in accordance with County CUPA regulations. The completion of abatement activities shall be documented by a qualified environmental professional(s) and submitted to the County for review.</p> <p>Mitigation Measure 3.8-1b: Require Soil Sampling If Stained Soil or Unusual Soil Odor Is Encountered During Construction of Off-Site Improvements</p> <p>If stained soils or unusual soil odors are encountered, halt work conditions would be implemented on the portions of the area with stained or odorous soils and a qualified geotechnical soils engineer shall conduct soil sample testing to confirm if there are any constituents that exceed established screening level thresholds. If any screening level thresholds are exceeded, the applicant shall coordinate with the County and other applicable regulatory agencies (e.g., Regional Water Quality Control Board and Department of Toxic Substances Control) to remediate the extent of soil contamination until such contamination is below all acceptable constituent screening levels.</p>	
<p>Impact 3.8-2: Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials, Substances, or Waste within 0.25 Miles of an Existing or Proposed School</p> <p>Although there are no schools within 0.25-mile of the project site, construction materials (which would include hazardous materials) may be transported to the project site using local public streets, and as such, hazardous materials in association with the construction of the project may be handled via transport within 0.25-mile of an existing or proposed school located along these local public streets. Nevertheless, the handling and transportation of hazardous materials during construction would be subject to the requirements of the USDOT, and CHP. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.8-3: For a Project Located within an Airport Land Use Plan or, Where Such a Plan Has Not Been Adopted, Within 2 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</p> <p>The project site is not located within 2 miles of a public airport or public use airport. Because of this distance, the project site is not located within any of the three ALUCP, as discussed previously under Section 3.8.2, "Environmental Setting."</p>	LTS	No mitigation is required for this impact.	LTS

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<p>Therefore, construction and operation of the project would not have the potential to subject people residing or working in the project area to excess levels of aircraft noise. However, the project site is subject to the Federal Aviation Regulations (FAA), Part 77 notification area due to exceeding the slope ratio stated in Part 77 of Title 14 in the Code of Federal Regulations (14 CFR 77). Project development is not expected to create new impacts to navigable airspace given the height of future residential structures in relation to topography, height of existing oak woodlands and overhead powerline facilities in the project area. This impact would be less than significant.</p>			
<p>Hydrology and Water Quality</p>			
<p>Impact 3.9-1: Violate Water Quality Standards or Waste Discharge Requirements</p> <p>Construction of the project, including off-site roadway and infrastructure improvements, would include earth-disturbing activities, which would result in the potential for increased erosion, runoff, and sedimentation on that site that could have subsequent effects on water quality. The project would be required to implement a SWPPP and associated BMPs to control erosion, reduce sedimentation and turbidity of surface runoff, and provide leak and spill protection for heavy equipment and hazardous material use. During operation, the project would be required to implement BMPs and LID measures in accordance with existing State and El Dorado County regulations, including the Grading Ordinance, the Design Manual, the Drainage Manual, and the West Slope Development and Redevelopment Standards and Post Construction Storm Water Plan. Impacts would be less than significant.</p>	<p>LTS</p>	<p>No mitigation is required for this impact.</p>	<p>LTS</p>
<p>Impact 3.9-2: Substantially Alter Drainage Patterns of the Project Site Such That Substantial Erosion and Siltation Would Occur</p> <p>Construction of the project and off-site improvements would include earth-disturbing activities that have the potential to result in soil erosion during excavation, grading, trenching, and soil stockpiling. Implementation of the project and the proposed off-site improvements would be subject to existing regulations pertaining to construction erosion control BMPs and post-construction stormwater runoff control, including the County's Grading Ordinance, the County SWMP's Construction Site Runoff Control Program, NPDES Construction General Permit, County's Design Manual, and MS4 permit requirements. Compliance with existing regulations would ensure that the impacts associated with soil erosion and siltation on-site or off-site would be less than significant.</p>	<p>LTS</p>	<p>No mitigation is required for this impact.</p>	<p>LTS</p>

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>Impact 3.9-3: Substantially Alter Drainage Patterns of the Project Site Such That Flooding On-Site or Off-Site Would Occur, or Flood Flows Would Be Impeded or Redirected</p> <p>Project components such as roads and houses would alter surface drainage patterns as a result of adding impermeable surface and altering flow patterns that could yield increased amounts of stormwater runoff resulting in on-site or off-site flooding. However, the Storm Drainage Evaluation prepared for the project concluded that the proposed drainage facilities incorporated into the project design would be sufficient to manage stormwater runoff on-site and would not result in adverse impact to downstream channels. The project would also not impede or redirect flood flows because the project is not located in flood hazard zone and the surface water flow would be managed by the proposed drainage facilities. Therefore, the impacts related to flooding on-site or off-site and impeding or redirecting flood flows would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.9-4: Conflict with or Obstruct Implementation of a Water Quality Control Plan</p> <p>The Basin Plan implemented by the Central Valley RWQCB is a master policy document for managing water quality in the region. Folsom Lake is the closest waterbody to the project site and is identified in the Basin Plan with various beneficial uses. Folsom Lake is an impaired waterbody listed for mercury. Implementation of the project and the proposed off-site improvements would not use mercury containing materials and would not violate water quality standards as discussed in Impact 3.9-1. Therefore, the impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Land Use, Planning, and Agriculture and Forestry Resources			
<p>Impact 3.10-1: Cause a Significant Environmental Impact Because of a Conflict with Any Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect.</p> <p>Implementation of the project would include General Plan amendments and rezoning. These changes to the General Plan would not alter or conflict with General Plan land use policy provisions and would be consistent with the SACOG 2020 MTP/SCS. As identified in the Sections 3.1 through 3.17 of the Draft EIR, implementation of identified mitigation measures would address project consistency with the General Plan policy provisions that address environmental effects. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Noise and Vibration			
<p>Impact 3.11-1: Construction Activities Could Result in a Substantial Temporary Increase in Noise Levels at Nearby Noise-Sensitive Receptors</p> <p>Short-term construction-generated noise levels associated with the project would expose nearby noise-sensitive receptors to noise levels that could exceed the FTA’s recommended daytime construction noise criteria of 90 dB Leq. Thus, this impact would be significant.</p>	S	<p>Mitigation Measure 3.11-1: Implement Construction-Noise Reduction Measures</p> <p>To minimize noise levels during construction activities, the construction contractor shall comply with the following measures during all construction work:</p> <ul style="list-style-type: none"> ▶ Construction activities shall be limited to the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 8:00 a.m. and 5:00 p.m. on weekends, and on federally recognized holidays. ▶ All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers’ recommendations. Equipment engine shrouds shall be closed during equipment operation. ▶ Where construction equipment with back-up alarms are available they shall be equipped with either audible self-adjusting backup alarms or alarms that only sound when an object is detected. Self-adjusting backup alarms shall automatically adjust to 5 dB over the surrounding background levels. All non-self-adjusting backup alarms shall be set to the lowest setting required to be audible above the surrounding noise levels. ▶ For all off-site improvement construction activities anticipated to occur within 31 feet of an existing residential land use, install a temporary solid barriers (e.g., plywood, noise curtains) around the construction site or construction equipment such that the line-of-sight between construction activities and the adjacent sensitive land uses is blocked ▶ Designate a disturbance coordinator and post that person’s telephone number conspicuously around the construction site and provide to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. ▶ Restrict construction vehicle navigation to and from the project site to Green Valley Road so that heavy vehicles and equipment are not accessing the site via local roadways (as detailed in Mitigation Measure 3.14-3). 	SU
<p>Impact 3.11-2: Exposure of Persons to or Generation of Excessive Vibration</p> <p>The use of heavy-duty construction equipment can generate various increased vibration levels. According to the FTA, vibratory rollers generate ground vibration levels of 0.20 in/sec PPV at 25 feet. Based on modeling conducted, vibration levels from the use of a vibratory roller could exceed the threshold of significance of 0.2</p>	S	<p>Mitigation Measure 3.11-2: Develop and Implement Construction Vibration Control Measures</p> <p>This mitigation measure would apply to construction activity within 73 feet of an occupied residence or other sensitive receptor.</p>	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>in/sec PPV for structural damage within 26 feet and 80 VdB for human annoyance within 73 feet of any vibratory roller activities. Because the project site is directly adjacent to residential uses to the west and south, it cannot be guaranteed that construction would not occur within 73 feet of those sensitive receptors. Therefore, the impact would be significant.</p>		<p>Vibration control measures shall be identified prior to construction and implemented during construction for areas where sensitive receptors or structures are located (i.e., 75 feet from occupied residential structures and 26 feet from any structure). The vibration control measures shall be included in a program and provided to the County prior to construction activities. Vibration control measures shall consider all potential vibration-inducing activities that would occur within the distance parameter described above and include various measures, setback distances, precautions, monitoring programs, and alternative methods to vibration-intensive activities with the potential to result in adverse impacts to sensitive receptors or structures. The following vibration control measures (or other equally effective measures approved by the County) shall be included in the plan:</p> <ul style="list-style-type: none"> ▶ To prevent structural damage and disturbance for sensitive land uses, minimum setback requirements for different types of ground vibration producing activities (e.g., vibratory roller) shall be established based on the proposed activities and locations, once determined. Established setback requirements can be breached only if a project-specific, site-specific, technically adequate ground vibration study indicates that the buildings would not be exposed to ground vibration levels in excess of 0.2 PPV (in/sec) or 80 VdB, and ground vibration measurements performed during the construction activity confirm that the buildings are not being exposed to levels in excess of these limits. ▶ Limit vibration-intensive activities to the daytime hours between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 5:00 p.m. on Saturday and Sunday. ▶ Phase high-impact activities so as not to occur simultaneously with other construction activities. 	
<p>Impact 3.11-3: Exposure to Existing Sensitive Receptors to New Stationary Noise Sources</p> <p>Project related stationary noise would consist of recreational activities and HVAC mechanical equipment. Depending on the proximity of future HVAC equipment to neighboring sensitive receptors, HVAC noise levels could potentially result in an 8 dBA increase over existing noise levels and exceed the applicable County nighttime noise standard of 45 dBA Leq and 55 dBA Lmax for stationary noise sources. Therefore, stationary noise impacts would be potentially significant.</p>	PS	<p>Mitigation Measure 3.11-3: Heating, Ventilation, and Cooling Noise</p> <p>An acoustical assessment shall be required as part of building permit submittal associated with proposed HVAC equipment, subject to County review and approval prior to issuance of building permits. The acoustical assessment shall evaluate the potential operational noise impacts attributed to HVAC noise. The acoustical assessment shall be completed by a qualified acoustical consultant that shall verify that the chosen mechanical equipment for individual development projects would not exceed the county noise ordinance for stationary noise sources of 55 dB Leq and 70 dB Lmax (daytime) or 45 dBA Leq and 55 dBA Lmax (nighttime) at the receiving property line of the nearest sensitive receptor. Where the acoustical analysis determines that noise levels would exceed applicable noise standards,</p>	LTS

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		noise reduction measures shall be identified. Noise reduction measures may include, but are not necessarily limited to: <ul style="list-style-type: none"> ▶ Selecting equipment with sound power specifications that do not exceed the 45 dBA Leq or 55 dBA Lmax at the nearest noise-sensitive receptor. ▶ Installing the equipment at a distance no less than the 50 feet. ▶ Employing noise dampening techniques such as solid enclosures or parapets walls to block the line-of-sight between the noise source and the noise-sensitive receptors. Blocking the line of sight with a solid barrier or enclosure would reduce noise levels by at least 5 dBA. 	
<p>Impact 3.11-4: Long-Term Traffic Noise Increases</p> <p>Project operation would result in an increase in traffic volumes along project-affected roadways, resulting in long-term permanent increases in traffic noise. Traffic noise modeling was conducted for the existing and the existing plus project conditions. Based on modeling conducted and applicable County of El Dorado allowable incremental noise increase standards (General Plan Policy 6.5.1.12), a significant increase in noise would occur if traffic noise would increase by 1.5 dB Ldn to 5 dB Ldn depending on the existing noise level. None of the studied roadway segments would result in a traffic noise increase of 1.5 dB Ldn or more. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Population and Housing			
<p>Impact 3.12-1: Induce Substantial Unplanned Population Growth in an Area, Either Directly or Indirectly</p> <p>The proposed project would consist of General Plan land use designation amendments, rezoning, and approval of a tentative subdivision map to create 379 residential lots. With the future development of the proposed residential lots, the proposed project would create population growth within the unincorporated area of El Dorado County. However, the County, through its General Plan, anticipates additional population growth over the next 20 years. The site is also part of assumed areas of development within the SACOG 2020 MTP/SCS. As such, the population growth increase associated with the project is considered to be within the County’s projected increase and no substantial unplanned population growth would occur. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Public Services and Recreation			
<p>Impact 3.13-1: Result in Increased Demand for Fire Protection Facilities and Services</p> <p>Implementation of the project would result in conversion of oak woodland and grassland into a residential neighborhood in the El Dorado Hills community and would add between 854 to 1,077 residents to the area. The location and additional population would increase the demand for fire protection and emergency services on-site. The project would be served by EDHFD and would be required to comply with County, State, and EDHFD fire protection requirements, as well as pay development fees. The project would not trigger a need for additional equipment or new fire protection facilities that would create a physical impact on the environment. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.13-2: Result in Increased Demand for Police Protection Facilities and Services</p> <p>Implementation of the project would result in the expansion of residential uses in the project area, increasing demand for law enforcement services. No reduction in law enforcement services to the project area would be expected. In addition, no additional facilities or equipment would be required by the project that would create a physical impact on the environment. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.13-3: Result in Increased Demand for Public School Facilities and Services</p> <p>Implementation of the project would result in 379 new residential units, which using the generation rates provided from the school districts, may lead to an increase of up to 38 students to EDUHSD and 212 students at RUSD. The project would not include any new school facilities or services but would introduce additional students to existing schools in EDUHSD and RUSD. EDUHSD and RUSD have capacity to increase student enrollment, even accounting for future development in El Dorado County. In addition, the project would be required to pay school impact fees to assist the school districts with meeting the increased demand for school services. Government Code Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed under Section 17620 of the Education Code is deemed to be full and complete mitigation of the impact for the planning, use, development, or provision of adequate school facilities. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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<p>Impact 3.13-4: Result in Increased Demand for Park Facilities and Services</p> <p>Implementation of the project would result in between 854 to 1,077 residents in the project area who would use parks and recreational facilities. The El Dorado County General Plan and County Code of Ordinances Chapter 120.12 require 5.0 acres of parks and recreation facilities per 1,000 residents for new residential development projects through land dedication and/or fees in lieu of land dedication for new development projects in El Dorado Hills CSD. The project design includes a 4.0-acre park and community clubhouse that would provide a variety of recreational resources and would be required to pay park dedication fees. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Transportation			
<p>Impact 3.14-1: Conflict with a Program, Plan, Ordinance, or Policy Addressing the Circulation System, Including Transit, Roadway, Bicycle, and Pedestrian Facilities</p> <p>The project includes the implementation of pedestrian facilities on the project site, as well as off-site improvements consistent with General Plan policies. Additionally, the project would be subject to, and constructed in accordance with, applicable County roadway design and safety guidelines. The project would not permanently alter the physical transportation network external to the project site such that existing and planned bicycle, pedestrian, and transit services would be adversely affected. For these reasons, the impact on transit, bicycle, and pedestrian facilities would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.14-2: Conflict or Be Inconsistent with CEQA Guidelines Section 15064.3(b) Regarding Vehicle Miles Traveled</p> <p>Construction activities would be temporary and intermittent and thus would not result in long-term increases in vehicular trips. The average number of construction trips generated would be 60 per day and therefore would satisfy the screening threshold for small projects as established by the OPR Technical Advisory and adopted by reference in County Resolution 141-2020. The VMT Memo determined that implementation of the project would result in a residential VMT per capita of 19.6. Therefore, implementation of the project would exceed the significance threshold of 19.1 VMT per capita for residential uses (i.e., 15 percent below the existing county VMT per capita) as identified in County Resolution 141-2020. For this reason, the project would conflict with State CEQA Guidelines Section 15064.3. This impact would be significant.</p>	S	<p>Mitigation Measure 3.14-2: Implement a Transportation Demand Management Program</p> <p>Before issuance of the first building permit in the first phase of development, the applicant shall develop a Transportation Demand Management (TDM) program for the project and shall submit the TDM program to El Dorado County for review and approval. The TDM program must be designed to achieve a 3-percent reduction in daily vehicle miles traveled generated by the proposed residential uses.</p> <p>The project’s homeowners association (HOA) shall be responsible for implementing the TDM program and included in the covenants, conditions, and restrictions (CC&Rs). The HOA shall be responsible for funding and overseeing the delivery of trip reduction/TDM proposed programs and strategies to achieve the trip reduction objective, which may include, but shall not be limited to, the following strategies:</p> <ul style="list-style-type: none"> ▶ School Pool Programs: Organize a program that matches families in carpools for school pick-up and drop-off; 	SU

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<ul style="list-style-type: none"> ▶ Subsidized Transit Program: Provide either partially or fully subsidized transit passes for all residents who request them and shall publicize the availability of transit passes to residents in periodic communications; and ▶ Voluntary Travel Behavior Change Program: The HOA shall provide educational materials (e.g., brochure) to new homebuyers that target individual attitudes towards travel and provide tools for individuals to analyze and alter their travel behavior. <p>The HOA shall submit an annual status report on the TDM program to El Dorado County beginning 1 year after the issuance of any certificate of occupancy and continuing until full project buildout. Data shall be collected in October of each year and submitted by December 31 of each year. The report shall be prepared in the form and format designated by the County, which must either approve or disapprove the program within 90 days. The HOA shall conduct household travel surveys to determine TDM program participation, estimated mode shares, and trip reduction levels. The survey instrument and monitoring plan shall be reviewed and approved by the County before implementation. The HOA shall also develop and implement a program to monitor daily traffic volumes entering and exiting project site, to be conducted annually and which shall take into account ongoing construction traffic, as appropriate, through coordination with on-site construction contractors.</p>	
<p>Impact 3.14-3: Substantially Increase Hazards Due to a Geometric Design Feature (e.g., Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farm Equipment)</p> <p>The project would involve the construction of a new residential subdivision in the El Dorado Hills community with 379 residential lots, 214 of which would be age restricted. The project would be subject to, and constructed in accordance with, applicable roadway design and safety guidelines. However, because the project could increase transportation hazards during construction and operations, this impact would be potentially significant.</p>	PS	<p>Mitigation Measure 3.14-3: Prepare and Implement a Construction Traffic Control Plan</p> <p>Prior to project construction, the project contractor(s) shall prepare and implement a detailed construction traffic control plan subject to review by the El Dorado County Department of Transportation. The traffic control plan shall demonstrate appropriate traffic handling during construction activities for all work that could impact the traveling public (e.g., the transport of equipment and materials to the project area). The traffic control plan shall minimize hazards through industry-accepted traffic control practices and, at a minimum:</p> <ul style="list-style-type: none"> ▶ Include coordination with the responsible agency departments, including the County Department of Transportation and El Dorado Hills Fire Department no less than 10 days prior to the start of the work for each phase to specify whether any temporary vehicle, pedestrian, or bicycle construction detours are needed. ▶ Describe the proposed work zone; detours and/or lane closures if applicable; signalized and non-signalized intersections affected by the work; and trucks, including the number and size of trucks per day, expected arrival/departure times, and truck circulation patterns (i.e., restrict construction vehicle navigation 	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		to and from the project site to Green Valley Road so that heavy vehicles and equipment are not accessing the site via local roadways). <ul style="list-style-type: none"> ▶ Identify all staging areas. ▶ Provide flag personnel where warranted. ▶ Utilize portable message signs and information signs at construction sites as needed. ▶ Provide appropriate tapers and lengths, signs, and spacing. ▶ Provide appropriate channelization devices and spacing. ▶ Provide work hours/workdays. ▶ Provide proposed speed limit changes, if applicable. ▶ Ensure that adequate emergency vehicle access to all surrounding parcels and properties is always maintained. 	
<p>Impact 3.14-4: Result in Inadequate Emergency Access</p> <p>Fire services would be provided by the El Dorado Hills Fire Department. The project would be required to meet standards and regulations identified in the California Fire Code, as adopted by Fire Department Ordinance 2022-01, including provisions related to maintaining emergency access during construction and operations. Additionally, the project design would be subject to review by the County and emergency service agencies; thus, ensuring that the project would be designed to meet all applicable emergency access design standards. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Utilities and Service Systems			
<p>Impact 3.15-1: Cause Environmental Impacts from Construction of New Infrastructure</p> <p>The project would include the construction of on-site and off-site infrastructure improvements that would result in significant environmental impacts. This impact would be significant and unavoidable.</p>	SU	As noted above, several mitigation measures (Mitigation Measures 3.2-1a, 3.2-1b, 3.2-1c, 3.2-1d, 3.3-1a, 3.3-1b, 3.4-1, 3.6-5a, 3.6-5b, 3.8-1, 3.11-1, and 3.11-2) would reduce impacts associated with construction, including that associated with off-site infrastructure. However, as noted in Section 3.11, "Noise," there are no additional, feasible mitigation measures to reduce Impact 3.11-1 due to the proximity of off-site receptors.	SU
<p>Impact 3.15-2: Have Sufficient Water Supplies</p> <p>Water supplies from EID would be adequate to serve buildout of the project under average, dry, and multiple-dry years based on the EID 2022 Water Supply and Demand Report and the EID 2020 UWMP. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>Impact 3.15-3: Impacts on Available Wastewater Treatment Capacity Implementing the project would create an additional 86,640 gallons of wastewater per day at buildout. This additional wastewater flow to the EDHWWTP could be accommodated in the plant’s current permitted capacity of 4.0 mgd. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.15-4: Impacts on Solid Waste Facility Capacity and Compliance with Regulations Related to Solid Waste Implementing the project would increase the county’s population and associated solid waste generation. County solid waste facilities and the Potrero Hills Landfill have capacity to accommodate the project. In addition, the project would be required to comply with and participate in the El Dorado Hills CSD’s and County’s solid waste handling and diversion programs, which would reduce the amount of waste disposed of at the landfill. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Tribal Cultural Resources			
<p>Impact 3.16-1: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource Tribal consultation under AB 52 has not resulted in the identification of tribal cultural resources on the project site. However, excavation activities associated with project construction may disturb or destroy previously undiscovered significant subsurface tribal cultural resources. This impact would be potentially significant.</p>	PS	<p>Mitigation Measure 3.16-1: Protect Previously Undiscovered Tribal Cultural Resources Implement Mitigation Measure 3.3-1b. Mitigation Measure 3.16-1b: Establish a Buffer for P-55-5445’s Rock Outcrop Implement Mitigation Measure 3.3-1c.</p>	LTS
Wildfire and Evacuation			
<p>Impact 3.17-1: Physically Interfere with or Substantially Impair an Adopted Emergency Response Plan or Emergency Evacuation Plan The project would include circulation improvements and development of an emergency access/egress at Lima Way to serve as a secondary means of emergency access and evacuation, and two emergency vehicle access road connections in addition to proposed access to Green Valley Road. The project-specific WES concluded that implementation of the project is not anticipated to create substantial traffic congestion and time delays that extends into the evacuation zone and would not impede clearing within the evacuation zone. However, the El Dorado County Sheriff’s Office has identified the need for special traffic signal operations during an evacuation to improve traffic flow along the Green Valley Road corridor. This impact would be significant.</p>	S	<p>Mitigation Measure 3.17-1: Participate in Green Valley Road Traffic Signal Improvements for Evacuation To assist in timely evacuations, prior to building permit issuance, the applicant shall coordinate with the El Dorado County Department of Transportation (DOT) and El Dorado County Sheriff’s Office, Office of Emergency Services (OES) to identify the infrastructure needed to remotely trip the traffic signals to green at Green Valley Road at Silva Valley Parkway, El Dorado Hills Boulevard, Francisco Drive, at Pleasant Grove Middle School, and Silver Springs Parkway. The applicant shall fund the necessary infrastructure and said infrastructure shall be installed prior to building permit issuance, to the satisfaction of El Dorado County DOT and OES. The County shall attempt to identify additional funding sources to assist in the funding of these improvements.</p>	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>Impact 3.17-2: Exacerbate Wildfire Risks due to Slope, Prevailing Winds, and Other Factors, and Thereby Expose Project Occupants to Pollutant Concentrations from a Wildfire or the Uncontrolled Spread of a Wildfire</p> <p>Project site development would result in construction and operational activities that could introduce new ignition sources that could increase wildfire hazards. The project would implement its Fire Safe Plan that addresses potential impacts resulting from wildland fire hazards and identifies measures necessary to mitigate these hazards. Implementation of the project and the associated Fire Safe Plan would not exacerbate wildfire risk, nor would it substantially increase the likelihood that the project would expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.17-3: Exacerbate Wildfire Risks or Result in Temporary or Ongoing Impacts to the Environment due to the Installation or Maintenance of Associated Infrastructure</p> <p>The project would include on-site and off-site infrastructure improvements, including EA roads, water, wastewater, and electrical improvements, and internal roadway improvements. The extension of public water service would improve the ability to combat potential fire incidents on-site. In addition, implementation of the project's Fire Safe Plan would involve vegetation management that would be required to comply with biological protection criteria established in the Fire Safe Plan and mitigation measures identified in this Draft EIR. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 3.17-4: Expose People or Structures to Significant Risks of Loss, Injury, or Death, Involving Wildland Fire or Risks Including Downslope or Downstream Flooding or Landslides, as a Result of Runoff, Post-Fire Slope Instability, or Drainage Changes</p> <p>As discussed in Impacts 3.17-1 and 3.17-2, implementation of the project would not substantially exacerbate wildfire risk. The project would improve conditions related to on-site wildfire risk through vegetation fuel modification and implementation of the fire prevention strategies identified in the Fire Safe Plan. A post-fire condition of the project site is not expected with implementation of the Fire Safe Plan that would create site instability that would expose people or structures to significant risks of loss, injury, or death due to wildland fire or to risks related to downslope, flooding, or landslides. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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El Dorado County

Generations at Green Valley Project Draft EIR

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Cumulative Impacts			
Impact 4-1: Contribute to Cumulative Visual Character Impacts		The project’s contribution to substantial changes to visual character impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-2: Contribute to Cumulative Lighting and Glare Impacts		The project’s contribution to substantial changes to lighting and glare impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-3: Contribute to Cumulative Conflicts with or Obstruction of Implementation of an Applicable Air Quality Plan		The project’s contribution to cumulative conflicts with the 2030 Ozone Plan would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-4: Contribute to Cumulative Construction Air Quality Impacts		The project’s contribution to cumulative construction air quality impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-5: Contribute to Cumulative Operational Air Quality Impacts		The project’s contribution to cumulative operational air quality impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-6: Contribute to Cumulative Exposure to Toxic Air Contaminants, Naturally Occurring Asbestos, Carbon Monoxide, and Odor		The project’s contribution to cumulative exposure to TACs, NOA, carbon monoxide, and odor impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-7: Contribute to Cumulative Impacts on Historical and Archaeological Resources and Human Remains		The project’s contribution to any significant cumulative impact related to cultural resources (archaeological resources) or human remains would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-8: Contribute to Cumulative Impacts on Biological Resources		The project’s contribution to cumulative oak woodland loss identified in the Biological Resources Policy Update and ORMP Final EIR would be cumulatively considerable and significant and unavoidable. No additional feasible mitigation measures are available to address this cumulative impact.	
Impact 4-9: Contribute to Cumulative Energy Impacts		The project’s contribution to cumulative energy impacts would not be cumulatively considerable. No mitigation is required for this impact.	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 4-10: Contribute to Cumulative Impacts on Paleontological Resources		The project's contribution to cumulative impacts on paleontological resources would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-11: Contribute to Cumulative Greenhouse Gas Impacts		The project's contribution to cumulative GHG and climate change impacts would be cumulatively considerable and significant and unavoidable. No additional feasible mitigation measures are available to address this cumulative impact.	
Impact 4-12: Contribute to Cumulative Hazard and Hazardous Material Impacts		The project's contribution to cumulative hazard and hazardous material impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-13: Contribute to Cumulative Water Quality Impacts		The project's contribution to cumulative water quality impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-14: Contribute to Cumulative Drainage and Flooding Impacts		The project's contribution to cumulative drainage and flooding impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-15: Contribute to Cumulative Land Use and Planning Impacts		The project's contribution to cumulative land use and planning impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-16: Contribute to Cumulative Construction Noise and Vibration Impacts		The project's contribution to cumulative construction noise and vibration impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-17: Contribute to Cumulative Traffic Noise Impacts		The project's contribution to cumulative traffic noise impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-18: Contribute to Cumulative Operational Noise Impacts		The project's contribution to cumulative operational noise impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-19: Contribute to Cumulative Population and Housing Impacts		The project's contribution to cumulative population growth impacts would not be cumulatively considerable. No mitigation is required for this impact.	

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El Dorado County

Generations at Green Valley Project Draft EIR

ES-55

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 4-20: Contribute to Cumulative Fire Protection Impacts		The project’s contribution to cumulative fire protection services impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-21: Contribute to Cumulative Law Enforcement Impacts		The project’s contribution to cumulative law enforcement services impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-22: Contribute to Cumulative Public School Impacts		The project’s contribution to cumulative public school service impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-23: Contribute to Cumulative Park and Recreation Impacts		The project’s contribution to cumulative public park and recreation impacts would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-24: Contribute to Cumulative Impacts on Transit, Bicycle, and Pedestrian Facilities		The project’s contribution to cumulative impacts on transit, bicycle, and pedestrian facilities would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-25: Contribute to Cumulative Impacts on Vehicle Miles Traveled		The project’s contribution to cumulative VMT impacts would be cumulatively considerable and significant and unavoidable. No additional feasible mitigation measures are available to address this cumulative impact.	
Impact 4-26: Contribute to Cumulative Geometric Design Hazard Impacts		The project’s contribution to cumulative impacts on design hazards would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-27: Contribute to Cumulative Emergency Access Impacts		The project’s contribution to cumulative impacts on emergency access would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-28: Contribute to Cumulative Water Supply Impacts		The project’s contribution to cumulative impacts on water supply would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-29: Contribute to Cumulative Wastewater Service Impacts		The project’s contribution to cumulative impacts on wastewater service would not be cumulatively considerable. No mitigation is required for this impact.	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 4-30: Contribute to Cumulative Solid Waste Impacts		The project's contribution to cumulative impacts on solid waste service would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-31: Contribute to Cumulative Tribal Cultural Resource Impacts		The project's contribution to cumulative impacts on tribal cultural resources would not be cumulatively considerable. No mitigation is required for this impact.	
Impact 4-32: Contribute to Cumulative Wildfire and Evacuation Impacts		The project's contribution to cumulative impacts on wildfire hazards and evacuation would not be cumulatively considerable. No mitigation is required for this impact.	

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El Dorado County

Generations at Green Valley Project Draft EIR

ES-57

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1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the environmental impacts of the proposed Generations at Green Valley (project). It has been prepared under the direction of El Dorado County in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15000 et seq.). This chapter of the Draft EIR provides information on:

- ▶ the project requiring environmental analysis (synopsis),
- ▶ the purpose and intended uses of this Draft EIR,
- ▶ the scope of this Draft EIR,
- ▶ agency roles and responsibilities,
- ▶ the public review process,
- ▶ the organization of this Draft EIR, and
- ▶ the standard terminology used in this Draft EIR.

1.1 PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The project site encompasses 280 acres on five parcels in an unincorporated area of El Dorado County, in the eastern portion of the El Dorado Hills Community Region. Existing land uses in the project area consist of single-family residences and rural residential areas. The El Dorado County General Plan land use designations for the site are Low Density Residential (LDR) and Open Space (OS), and the site is zoned as Estate Residential Ten-Acre (RE-10), Estate Residential Five-Acre (RE-5), and Recreational Facility Low (RF-L). The project involves amending the General Plan land use designations to High-Density Residential (HDR), Low-Density Residential (LDR), and Public Facilities (PF). The project also involves rezoning the site to Residential, Single-Unit (R1 [6,000-square lot minimum]) Open Space (OS), Recreational Facilities High (RF-H), and Estate Residential Five-Acre (RE-5). The project involves subdividing the project site into 379 residential lots (378 new residences and the retention of the existing residence on site), a clubhouse lot, a park site lot, 12 landscape lots, and nine open space lots. Age restrictions would apply to 214 of the residential lots. The project would also include off-site roadway intersection, water, wastewater, and electrical improvements. The reader is referred to Chapter 2, "Project Description," for further details on the project.

1.2 PURPOSE AND INTENDED USES OF THIS DRAFT EIR

According to CEQA, preparation of an EIR is required whenever it can be fairly argued, based on substantial evidence, that implementing a proposed project may result in a significant environmental impact. An EIR is an informational document used to inform public-agency decision makers and the general public of the significant environmental impacts of a project, identify possible ways to minimize the significant impacts, and describe reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

This Draft EIR has been prepared to meet the requirements of a project EIR as defined by Section 15161 of the State CEQA Guidelines. A project EIR focuses on the changes in the physical environment that would result from implementation of a project, including its planning, construction, and operation.

1.3 SCOPE OF THIS DRAFT EIR

This Draft EIR includes an evaluation of the following 16 environmental issue areas, as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant and unavoidable impacts, alternatives):

- ▶ aesthetics;
- ▶ air quality;
- ▶ archaeological and historical cultural resources;
- ▶ biological resources;
- ▶ energy;
- ▶ geology, soils, and paleontological resources;
- ▶ greenhouse gas emissions and climate change;
- ▶ hazards and hazardous materials;
- ▶ hydrology and water quality;
- ▶ land use, planning, agriculture, and forestry resources;
- ▶ noise and vibration;
- ▶ population and housing;
- ▶ public services and recreation;
- ▶ transportation;
- ▶ utilities and service systems;
- ▶ tribal cultural resources; and
- ▶ wildfire and evacuation.

Under CEQA and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects to those effects that the lead agency has determined would or may be significant (CEQA Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would or may be significant was derived from review of the project; review of applicable planning documents and CEQA documentation; information gathered during fieldwork; feedback from public and agency consultation; comments received during a public scoping meeting held on March 12, 2024; and comments received on the notice of preparation (NOP) (see Appendix A of this Draft EIR).

The NOP was distributed on February 23, 2024, to responsible agencies, interested parties and organizations, and private organizations and individuals that may have an interest in the project. Further information on the NOP and scoping process is provided below in Section 1.5, "CEQA Public Review Process."

1.4 AGENCY ROLES AND RESPONSIBILITIES

1.4.1 Lead Agency

As lead agency, El Dorado County is responsible for completion of the environmental review requirements under CEQA and considering whether to approve the project.

1.4.2 Trustee and Responsible Agencies

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

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

The following agencies may have responsibility for, or jurisdiction over, implementation of project elements.

STATE AGENCIES

- ▶ California Department of Fish and Wildlife
- ▶ Central Valley Regional Water Quality Control Board

REGIONAL AND LOCAL AGENCIES

- ▶ El Dorado County Air Quality Management District
- ▶ El Dorado Local Agency Formation Commission
- ▶ El Dorado Hills County Water District (also known as the El Dorado Hills Fire Department)
- ▶ El Dorado Hills Community Services District
- ▶ El Dorado Irrigation District

1.5 CEQA PUBLIC REVIEW PROCESS

As identified above in Section 1.3, “Scope of This Draft EIR,” in accordance with CEQA regulations, an NOP was distributed to responsible agencies, interested parties and organizations, and private organizations and individuals that could have interest in the project.

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

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

Upon completion of the public review and comment period, a Final EIR will be prepared that will include both written and oral comments on the Draft EIR received during the public review period, responses to those comments, and any revisions to the Draft EIR made in response to public comments. Together, the Draft EIR and Final EIR make up the EIR for the project.

1.6 DRAFT EIR ORGANIZATION

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

- ▶ The “Executive Summary”: This chapter introduces the Generations at Green Valley Project; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and lists significant impacts and mitigation measures to reduce significant impacts to a less-than-significant level, if feasible.
- ▶ Chapter 1, “Introduction”: This chapter provides a synopsis of the project; a description of the purpose and intended uses of this Draft EIR; a description of the scope of this EIR; a description of the lead, trustee, and responsible agencies; a summary of the public review process; a description of the organization of this EIR; and definitions of standard terminology used in this EIR.
- ▶ Chapter 2, “Project Description”: This chapter describes the location, background, goals, and objectives for the project and describes the project elements in detail.
- ▶ Chapter 3, “Environmental Impacts and Mitigation Measures”: The sections in this chapter evaluate the environmental impacts that would be generated by implementing the project, arranged by subject area (e.g., land

use, hydrology and water quality). In each section of Chapter 3, the regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions during and after development of the project are then evaluated for each subject area. For any significant or potentially significant impact that would result from project implementation, mitigation measures are presented, and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially in each section (e.g., Impact 3.2-1, Impact 3.2-2, etc.). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 3.2-2 would be Mitigation Measure 3.2-2.

- ▶ Chapter 4, “Cumulative Impacts”: This chapter provides information required by CEQA regarding cumulative impacts that would result from implementation of the Generations at Green Valley Project, as well as other past, present, and probable future projects.
- ▶ Chapter 5, “Alternatives”: This chapter evaluates alternatives to the project, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two alternative development options. It also identifies the environmentally superior alternative.
- ▶ Chapter 6, “Other CEQA Sections”: This chapter evaluates growth-inducing impacts and the irreversible and irretrievable commitment of resources, and it discloses any significant and unavoidable adverse impacts.
- ▶ Chapter 7, “Report Preparers”: This chapter identifies the preparers of this document.
- ▶ Chapter 8, “References”: This chapter identifies the documents and individuals used as sources for the analysis.

1.7 STANDARD TERMINOLOGY

This Draft EIR uses the following standard terminology:

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

2 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

The proposed Generations at Green Valley Project (project) would consist of General Plan land use designation amendments, rezoning, and approval of a tentative subdivision map to create 379 residential lots (378 new residences and the retention of the existing residence on-site), a clubhouse lot, a park site lot, 13 landscape lots, and nine open space lots.

2.2 PROJECT LOCATION AND SETTING

The project site is located in an unincorporated area of El Dorado County, in the eastern portion of the El Dorado Hills Community Region (Figure 2-1). Existing land uses in the project area consist of single-family residences and rural residential areas. The project site encompasses 280 acres located on five parcels, Assessor's Parcel Numbers (APN) 126-020-001, 126-020-002, 126-020-003, 126-020-004, and 126-150-023. The majority of the site is located south of Green Valley Road, with the exception of the northern tip of the site that is north of Green Valley Road (portion of APN 126-150-023). This portion is being removed from the project as part of a Boundary Line Adjustment that is being processed under a separate application to the County. The project also includes two proposed access roadway connections to Green Valley Road (C-Drive and A-Drive) that would use existing easements to access Green Valley Road.

The project site is currently undeveloped and consists primarily of grassland vegetation, oak woodlands and scattered oak trees, on-site ponds/creek, and wetland features (Figure 2-1). The topography of the site is varied, with elevations ranging from approximately 960 feet to 1,235 feet above mean sea level. The center of the site is generally higher in elevation and relatively flat compared to the periphery of the site. Slopes range from flat to greater than 40 percent, with the majority of the site having less than a 10 percent slope.

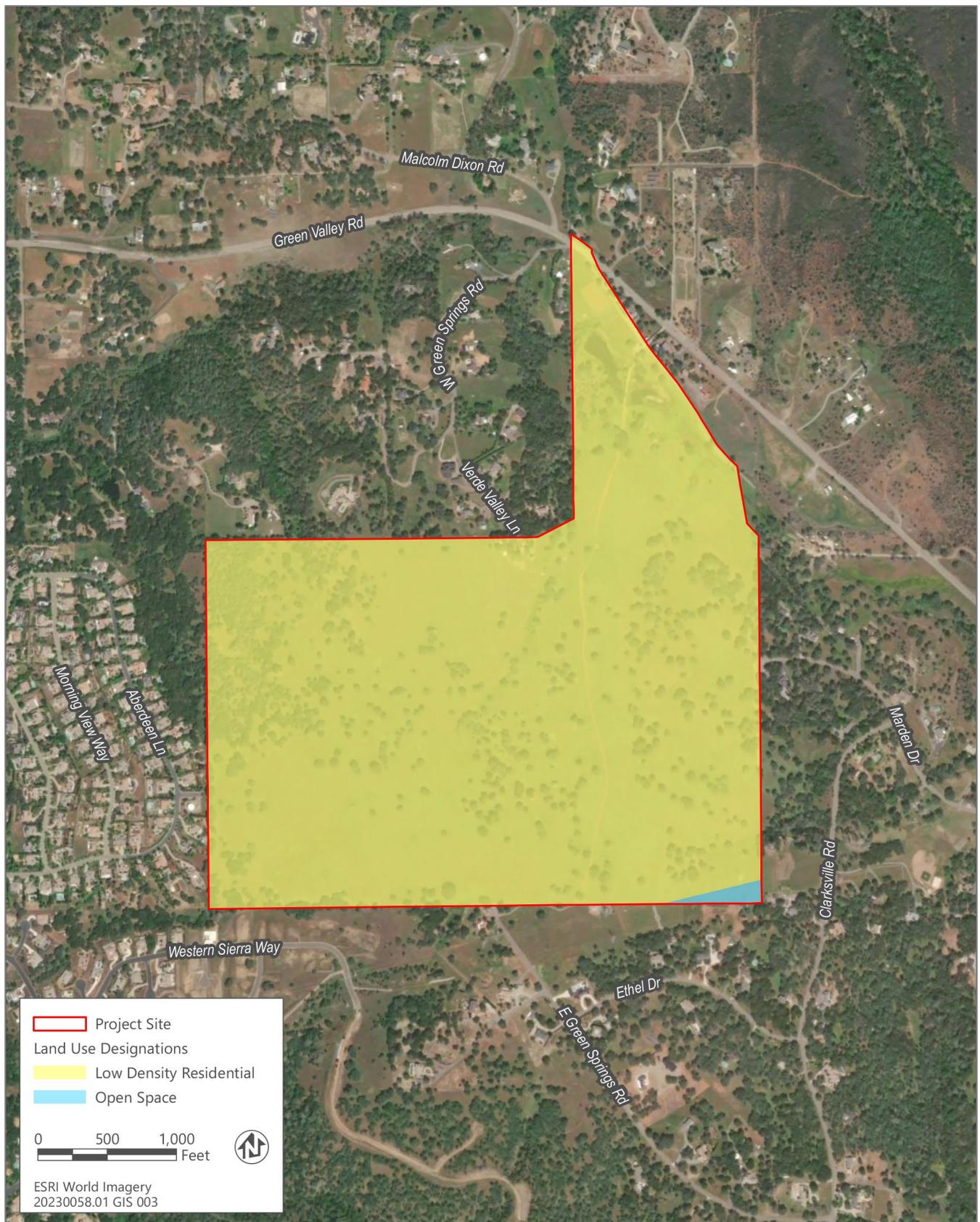
The project site is currently used for seasonal grazing. Additionally, a small strawberry field is located on the northern portion of the site with associated structures in the area. A Sacramento Municipal Utility District (SMUD) utility easement, which contains a 230 kilovolt electrical transmission line, traverses the southeast corner of the project site.

The El Dorado County General Plan land use designations for the site are Low Density Residential (LDR) with approximately 1.4 acres designated Open Space (OS) associated with the SMUD utility easement (Figure 2-2). Zoning on the site consists primarily of Estate Residential 10-acre (RE-10) with some areas zoned RE-5, and the SMUD easement zoned as Recreational Facility Low (RF-L). The proposed C-Drive extension area is zoned RE-5, while the proposed A-Drive extension area is zoned RE-10 (Figure 2-3).

2.3 PROJECT BACKGROUND

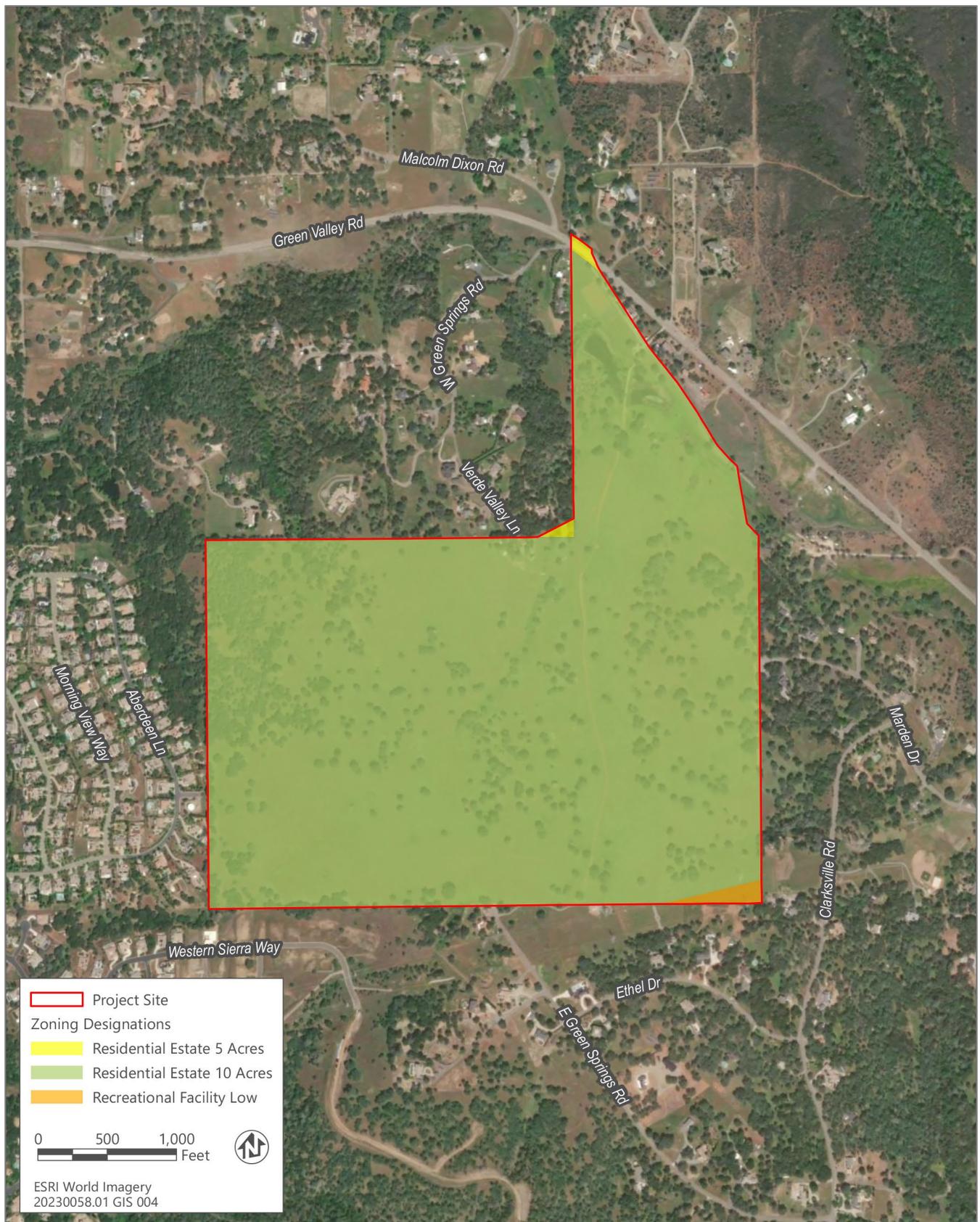
The project site was previously proposed for development with an application that was submitted in 2011. The previous project was named "Dixon Ranch" and proposed a General Plan amendment, rezone, planned development, and a tentative subdivision map that would allow for the development of 605 residential lots (including 160 age-restricted units) that would have ranged from 4,724 square-feet to over 5 acres in size. Dixon Ranch also proposed two park sites, clubhouse, and designated open space. Proposed circulation and infrastructure improvements included off-site improvements to access Green Valley Road, wastewater conveyance improvements, and electrical service improvements. Dixon Ranch was denied by the Board of Supervisors on February 14, 2017.

The proposed project is brought by a different applicant and is independent of Dixon Ranch. While a new project, the applicant has considered concerns expressed by the public and Board of Supervisors during hearings for Dixon Ranch. Most notably, the proposed project has reduced the number of proposed residential lots from 605 to 379 (approximately 37 percent reduction in residential lots).



Source: Data sourced from the County of El Dorado in 2023; adapted by Ascent in 2023.

Figure 2-2 Existing General Plan Land Use Designations



Source: Data sourced from the County of El Dorado in 2023; adapted by Ascent in 2023.

Figure 2-3 Existing Zoning

2.4 PROJECT OBJECTIVES

The applicant has identified the following objectives of the Generations at Green Valley Project:

- ▶ Implement the County's General Plan by directing urban/suburban growth within the El Dorado Hills Community Region located adjacent to existing residential development in order to ensure the preservation of large expanses of open space and agricultural lands within the County.
- ▶ Establish a land use pattern that maintains and enhances the character of existing rural and urban communities, emphasizing both the natural setting and built design elements.
- ▶ Develop a thoughtful design that focuses higher density residential lots toward the center of the parcel and includes large residential lots, open space, and parks throughout the project as an amenity but especially the exterior to provide significant buffers between existing residential communities.
- ▶ Provide a range of residential densities and product type to meet the needs of the changing demographics of the County, including families, empty nesters, and active adults.
- ▶ Create a residential community containing open space and a range of passive and active recreational amenities for its residents and the community.
- ▶ Establish an economically viable project that provides a fair-share contribution of infrastructure to the community through the payment of fees and/or construction of off-site transportation improvements in accordance with the County's General Plan.
- ▶ Improve emergency access and evacuation routes in the project area.
- ▶ Provide a comprehensively planned project that is sensitive to environmental issues including wetland and tree preservation.

2.5 PROPOSED PROJECT CHARACTERISTICS

The Generations at Green Valley Project proposes to amend the General Plan land use designations to High Density Residential (HDR), Low Density Residential (LDR), and Public Facilities (PF) (Table 2-1 and Figure 2-4). The project would also rezone the site to Residential, Single-Unit (R1 [6,000-square foot minimum]), Open Space (OS), Recreational Facilities, High Intensity (RF-H), and Residential Estate, Five-Acre (RE-5) (Figure 2-5). Table 2-2 provides a summary of residential lot size ranges associated with the proposed zoning. The proposed tentative subdivision map is provided in Figure 2-6. The proposed development area of the project would be within the General Plan designated El Dorado Hills Community Region boundary.

Table 2-1 Generations at Green Valley Residential Lot Density

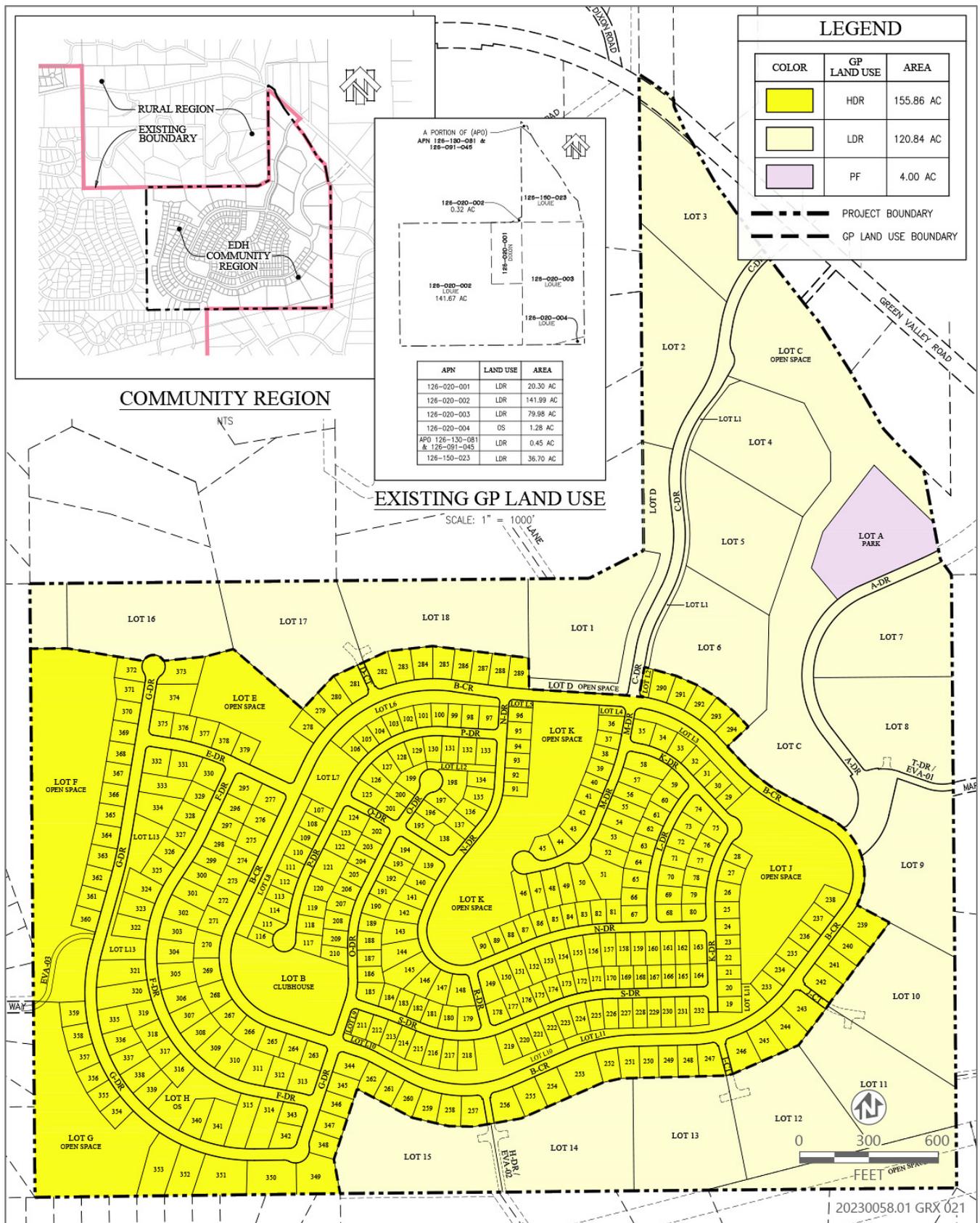
Proposed General Plan Land Use Designation	Area (Acres)	Lot Total	Density (Lots/Acre)
High Density Residential	155.9	361	2.32
Low Density Residential	124.8	19	0.14
Totals	280.7	379	1.35

Source: Generations at Green Valley Residential Lot Size Tables dated January 2024 (CTA 2024).

Table 2-2 Generations at Green Valley Residential Lot Sizes

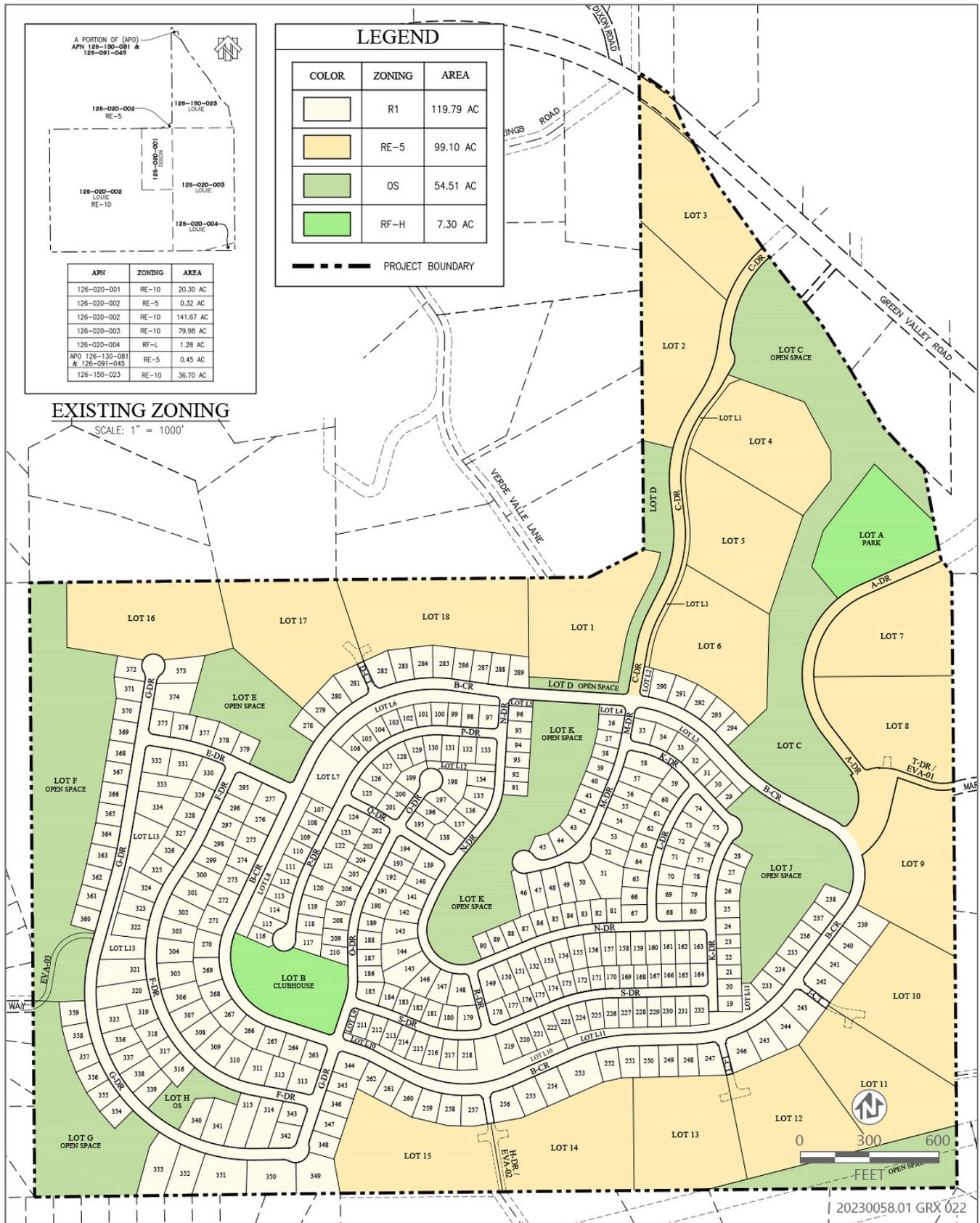
Proposed Zoning	Minimum Lot Area (Square Feet)	Maximum Lot Area (Square Feet)	Average Lot Size (Square Feet)
Estate Residential -5 acre	217,827	248,403	224,044
Single-Unit Residential	10,010	34,049	13,331
Single-Unit Residential (Age Restricted)	6,000	22,362	8,517

Source: Generations at Green Valley Residential Lot Size Tables dated January 2024 (CTA 2024).



Source: Image produced and provided by CTA Engineering & Survey in 2024, adapted by Ascent in 2024.

Figure 2-4 Project Proposed General Plan Land Use Designations



Source: Image produced and provided by CTA Engineering & Survey in 2024, adapted by Ascent in 2024.

Figure 2-5 Project Proposed Zoning

Table 2-3 provides an overview of the proposed land uses of the project. Each of the project components are described in detail below.

Table 2-3 Generations at Green Valley Land Use Summary

Proposed General Plan Land Use Designation	Proposed Zoning	Summary of Proposed Land Use	Number of Lots
Residential			
Low Density Residential	Estate Residential -5 acre	Residential estate lots would be generally located along the perimeter of the site.	18
High Density Residential	Single-Unit Residential	Single family residential lots would be generally located in the central and southern portion of the site. 214 residential lots would age restricted.	361
<i>Total Number of Residential Lots</i>			<i>379</i>
Parks and Recreation Facilities			
High Density Residential	Recreational Facilities, High Intensity	Clubhouse site on a 3.3-acre lot (lot B).	1
Public Facilities	Recreational Facilities, High Intensity	Park site on a 4.0-acre lot (lot A).	1
Landscaping and Open Space			
Low Density Residential	Estate Residential -5 acre	Landscape Lot L1.	1
High Density Residential	Single-Unit Residential	Landscape lots L2 through L13.	12
Low Density Residential and High Residential	Open Space	Open space lots C, D, E, F, G, H, I, J, and K.	91

¹ Lot F is located in both Low Density Residential and High Density Residential land use designations.

Source: Generations at Green Valley Tentative Map dated December 2021 (CTA 2021a) and Generations at Green Valley Zoning and General Plan Map (CTA 2021b).

2.5.1 Residential Uses

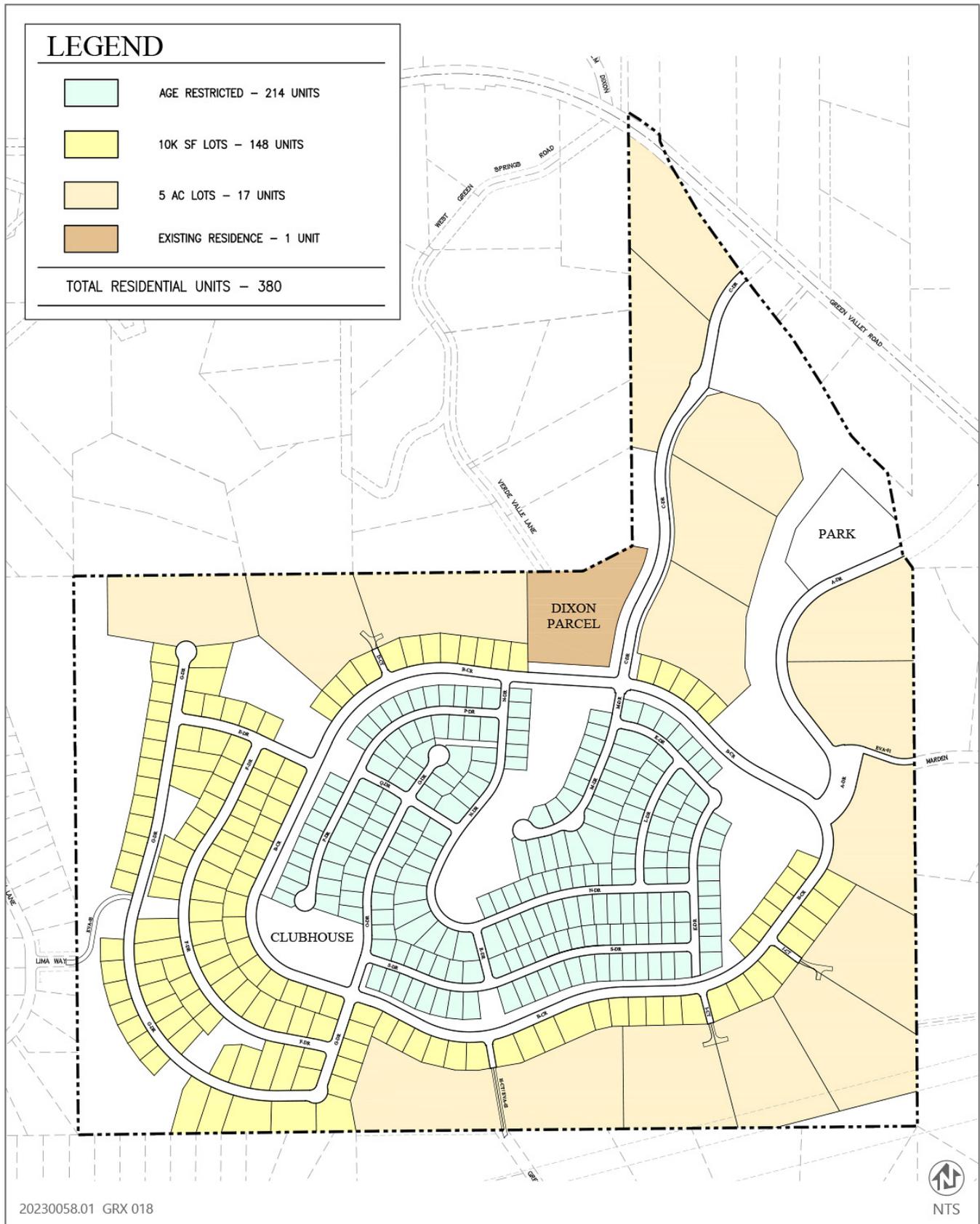
As shown in Figure 2-6, the project would establish a range of residential lot sizes and associated densities through amendments to the land use designations as depicted on the General Plan Land Use Diagram and rezoning. There would be 361 residential lots zoned R1 generally located in the central and southern portion of the site. Of these 361 residential lots, 214 would be classified as “age-restricted” units (Figure 2-7). These residential lots and units would be for residents who are 55 years or older in age. Figure 2-7 also identifies the location of the existing residence to be retained on-site (referred to as “Dixon Parcel”).

The 18 RE zoned lots would be located generally along the northern, eastern, and southern perimeter of the site as well as along Green Valley Road. This would include proposed Lot 1 that would contain an existing residence on the site.



Source: Image produced and provided by CTA Engineering & Surveying in 2024, adapted by Ascent in 2024.

Figure 2-6 Proposed Tentative Subdivision



Source: Image prepared and produced by Kimley Horn in 2022.

Figure 2-7 Proposed Site Plan – Age Restricted Uses

2.5.2 Recreation Uses and Open Space

The proposed park site would be four acres located along A-Drive near Green Valley Road. The park is proposed for dedication to the El Dorado Hills Community Services District (CSD). The design of the park site would likely be determined by the El Dorado Hills CSD, but may include a baseball diamond, tot lot, parking lot, and a restroom. The clubhouse site consists of 3.3 acres within the R1 zoned lots. It would be owned and maintained by the project's homeowners association (HOA) and may include community building, pool, barbeque facilities, bocci courts, and a pickle ball court.

As shown in Figure 2-5, the project proposes open space consisting of 54.51 acres that are intended to preserve existing oak trees and woodland areas, wetland features, contain water quality/detention facilities and the SMUD utility easement, and provide buffers to adjoining land uses. The open space lots would be owned and maintained by the HOA.

2.5.3 Circulation Improvements

The project roadway system would consist of a "loop" private roadway system. Access to the project site would consist of two new roadway connections to Green Valley Road associated with proposed C-Drive and A-Drive that generally follow the alignment of existing non-paved roadways (including the driveway for Green Valley Family Farms stand site) and would be gated to restrict access to a majority of the on-site residences. However, the gate on A-Drive would be located west of the proposed park site to allow for public and CSD access and use. Figure 2-8a and 2-8b identifies project improvements to Green Valley Road at the project proposed access points with C-Drive and A-Drive, which would include dedicated deceleration lanes and turn lanes separated from the travel lanes of Green Valley Road. The C-Drive intersection with Green Valley Road would be limited to a right-turn in and left turn out access from C-Drive, while A-Drive intersection with Green Valley Road would be a signalized full access intersection. Proposed Lot 1 (Dixon Parcel) would continue to obtain roadway access from Verde Valley Lane.

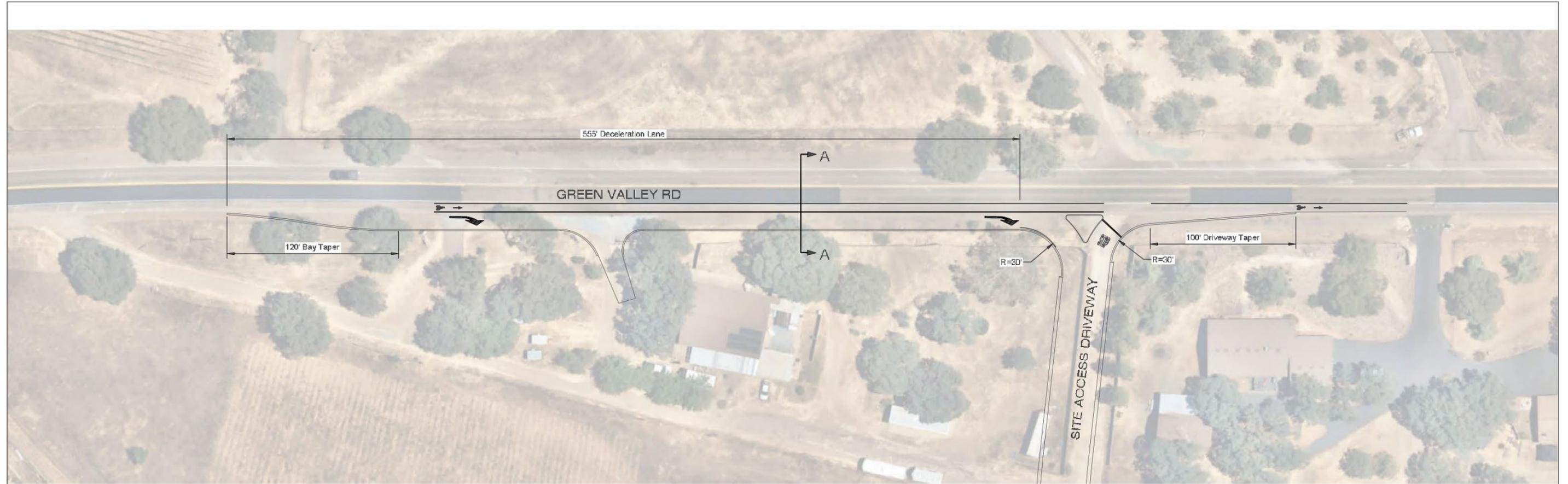
The project roadways would include sidewalks as well as a pedestrian trail that would connect the park site to a trail along the eastern side of C-Drive.

The project would include an emergency access/egress (EAE) at Lima Way to serve as a secondary means of emergency access and evacuation that would be gated but designed to be accessible by project residents during an evacuation order. The project would include signage identifying that the Lima Way EAE is to only be used during an evacuation order. Cameras are anticipated to be installed and monitored by the project HOA to address unauthorized use of the EAE by project residents.

There would also be two emergency vehicle access (EVA) road connections at Marden Drive and at East Green Springs Road (to the south) that would be stubbed to the property line for emergency vehicle use. While the Marden Drive EVA would physically connect to Marden Drive, East Green Springs Road would need to be extended off-site for approximately 50 feet to connect to the project's EVA at the property line. This connection to Green Springs Ranch would only occur if the Green Springs Ranch Association chooses to complete the extension in the future and at their discretion. These accesses would meet the design standards for gated developments as described in Section 130.30.090(D) of the El Dorado County Code of Ordinances and the El Dorado Hills Fire Department Ordinance 2022-01 (Figure 2-6).

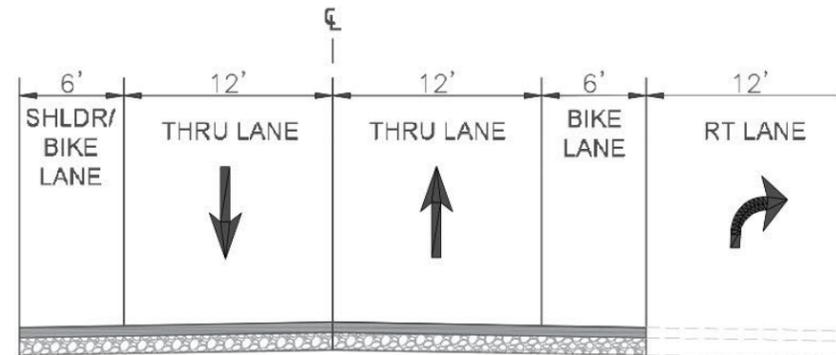
Based on the results of the 2022 Generations at Green Valley Transportation Impact Study prepared by Kimley-Horn (Kimley-Horn 2022), the project is proposing the following traffic signal operational improvements to address compliance with the El Dorado County Transportation and Circulation Element policies TC-Xd, TC-Xe, and TC-Xf. These improvements would not involve physical alteration of these intersections.

- ▶ Optimize traffic signal coordination on El Dorado Hills Boulevard/Latrobe Road from White Rock Road to Saratoga Way (North).
- ▶ Modify traffic signal phasing and hardware for the Silva Valley Parkway and Harvard Way intersection to provide a southbound right-turn overlap.



GENERAL NOTES: (THIS SHEET ONLY)

1. UNLESS OTHERWISE NOTED ON PLAN, EXISTING STRIPING TO REMAIN.
2. UNLESS OTHERWISE NOTED ON PLAN, EXISTING SIGNING TO REMAIN.
3. EXISTING STRIPING CONFLICTING WITH PROPOSED STRIPING SHALL BE REMOVED.
4. NEW PAVEMENT LEGEND MARKINGS SHALL BE CENTERED WITHIN LANE.
5. LANES SHALL BE WIDENED ON ONE SIDE PER FIGURE 405.2A OF THE CALIFORNIA HDM.
6. INSTALL NORTHBOUND DRIVEWAY CONNECTION PER EL DORADO COUNTY STANDARD PLAN 103E.

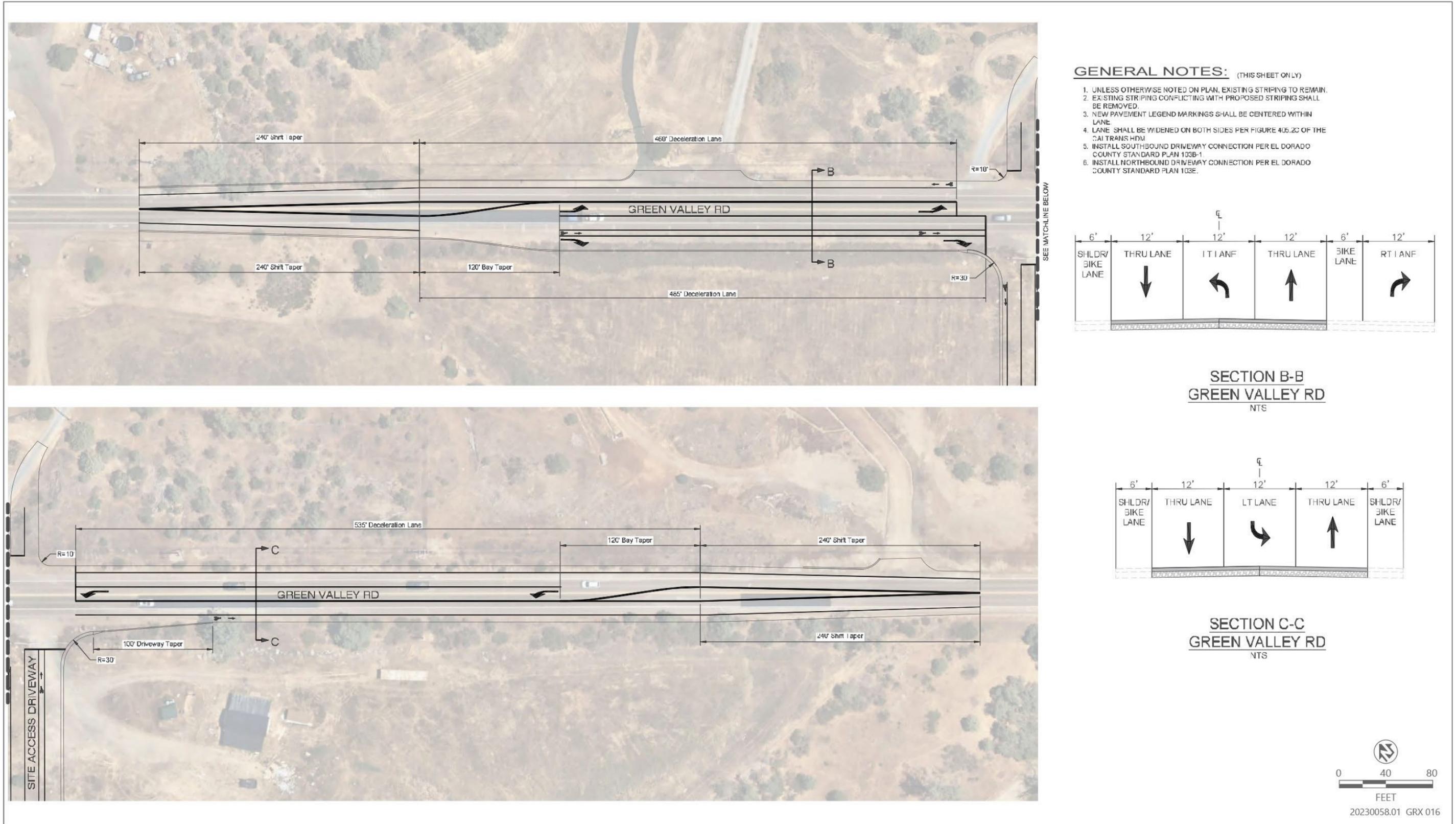


SECTION A-A
GREEN VALLEY RD
NTS



Source: Image prepared and produced by Kimley Horn in 2023.

Figure 2-8a Proposed Green Valley Road Intersection Improvements With C-Drive



Source: Image prepared and produced by Kimley Horn in 2023.

Figure 2-8b Proposed Green Valley Road Intersection Improvements With A-Drive

2.5.4 Drainage Improvements

The project would include several drainage improvements in order to maintain or reduce peak flows leaving the site as well as flows and flood elevations in Green Springs Creek. Drainage improvements are shown in Figure 2-9a and 2-9b and consist of the following improvements based on the Storm Drainage Evaluation for the Generations Tentative Map (Domenichelli and Associates 2022):

- ▶ Removal of the existing ponds within the Green Spring Creek corridor in the northern portion of the site through replacement of the existing upstream culvert crossing with a new Conspan crossing at the proposed C-Drive crossing, removal of the downstream embankment (downstream of C-Drive), and restoration of the creek channel to its approximate natural state near proposed A-Drive crossing. This would include the installation of rock slope protection and check dams within the channel. These improvements would require permitting under the federal Clean Water Act (Section 404) from the U.S. Army Corps of Engineers, federal Clean Water Act (Section 401) certification or waiver with the Central Valley Regional Water Quality Control Board, and approval of a streambed alteration agreement (1602 Permit) from California Department of Fish and Wildlife Service.
- ▶ Construction of eight on-site detention/water quality basins.

2.5.5 Public Service Provision and Infrastructure Improvements

The project proposes to obtain public and utility services from the following agencies, which would require action by the El Dorado Local Agency Formation Commission (LAFCO) to approve the annexations of the site into the service boundaries of these agencies.

- ▶ El Dorado Hills Fire Department (also known as the El Dorado Hills County Water District/Fire Protection District) for fire protection services;
- ▶ El Dorado Hills CSD for parks, recreation, and other community services; and
- ▶ El Dorado Irrigation District (EID) for water and wastewater services.

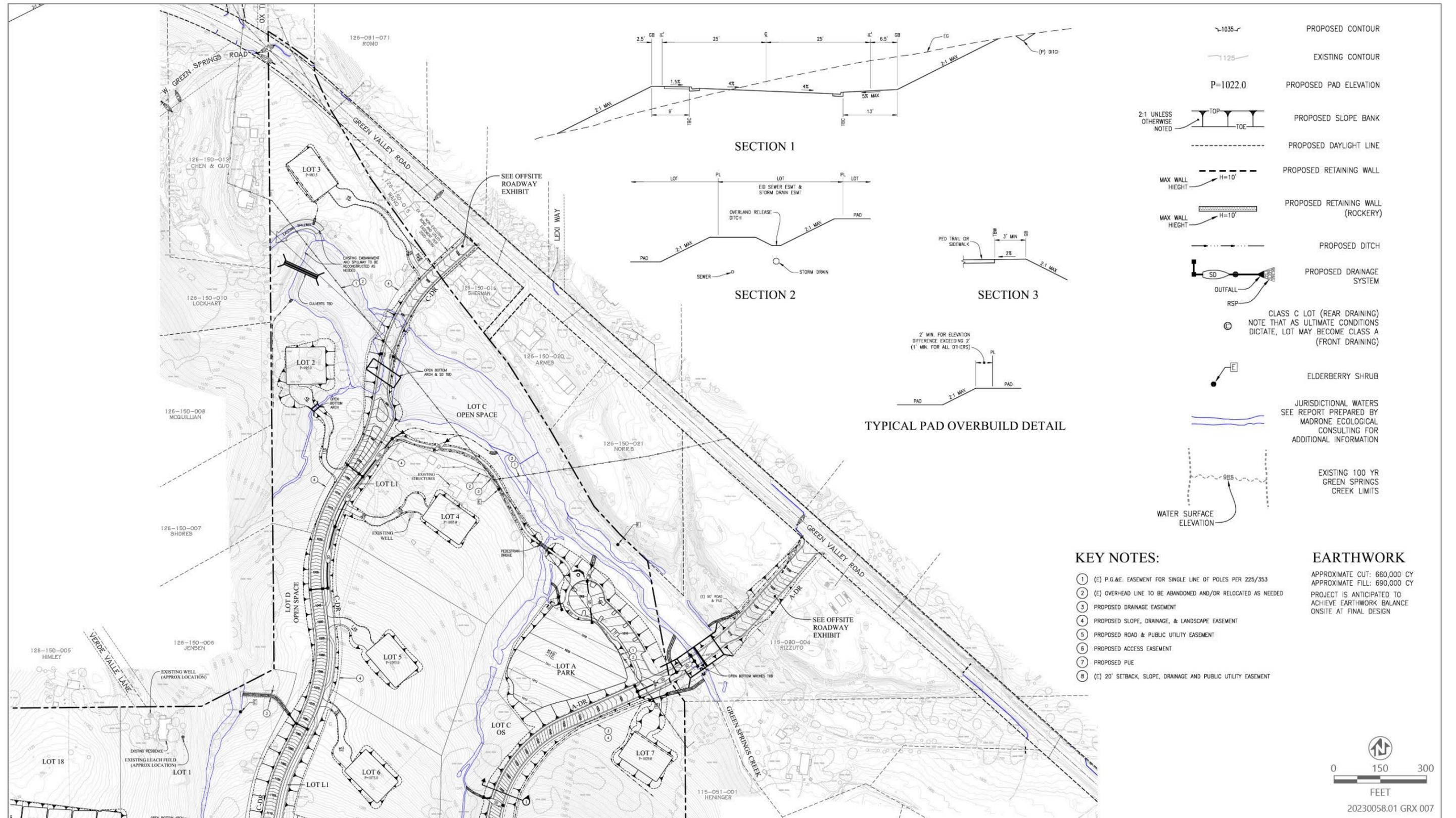
The El Dorado County Sheriff's Office currently serves the project site. The project site would be served by the Rescue Union School District and the El Dorado Union High School District.

OFF-SITE WATER DISTRIBUTION IMPROVEMENTS

As noted above, EID is proposed to provide public water service to the project site, with the exception of proposed Lot 1 that would continue to use its existing on-site well for water supply. There are also two additional wells on-site that would be abandoned consistent with County regulations. On-site water supply would be distributed through a network of pipelines within the project's roadway right-of-way. The project would require the off-site improvements for water supply service identified below (Figure 2-10). On-site water supply improvements are shown in Figure 2-11.

- ▶ Connection to an existing 8-inch water distribution pipeline within Lima Way on the project's western boundary.
- ▶ Construction of a new water distribution pipeline from the project's southern boundary to an existing 10-inch pipeline located in Greenview Drive. This distribution pipeline would be approximately one mile in length.
- ▶ Construction of a new water distribution pipeline from the project's eastern boundary along Green Valley Road to an existing 12-inch pipeline west of Pleasant Grove Middle School. This distribution pipeline would be approximately one mile in length.

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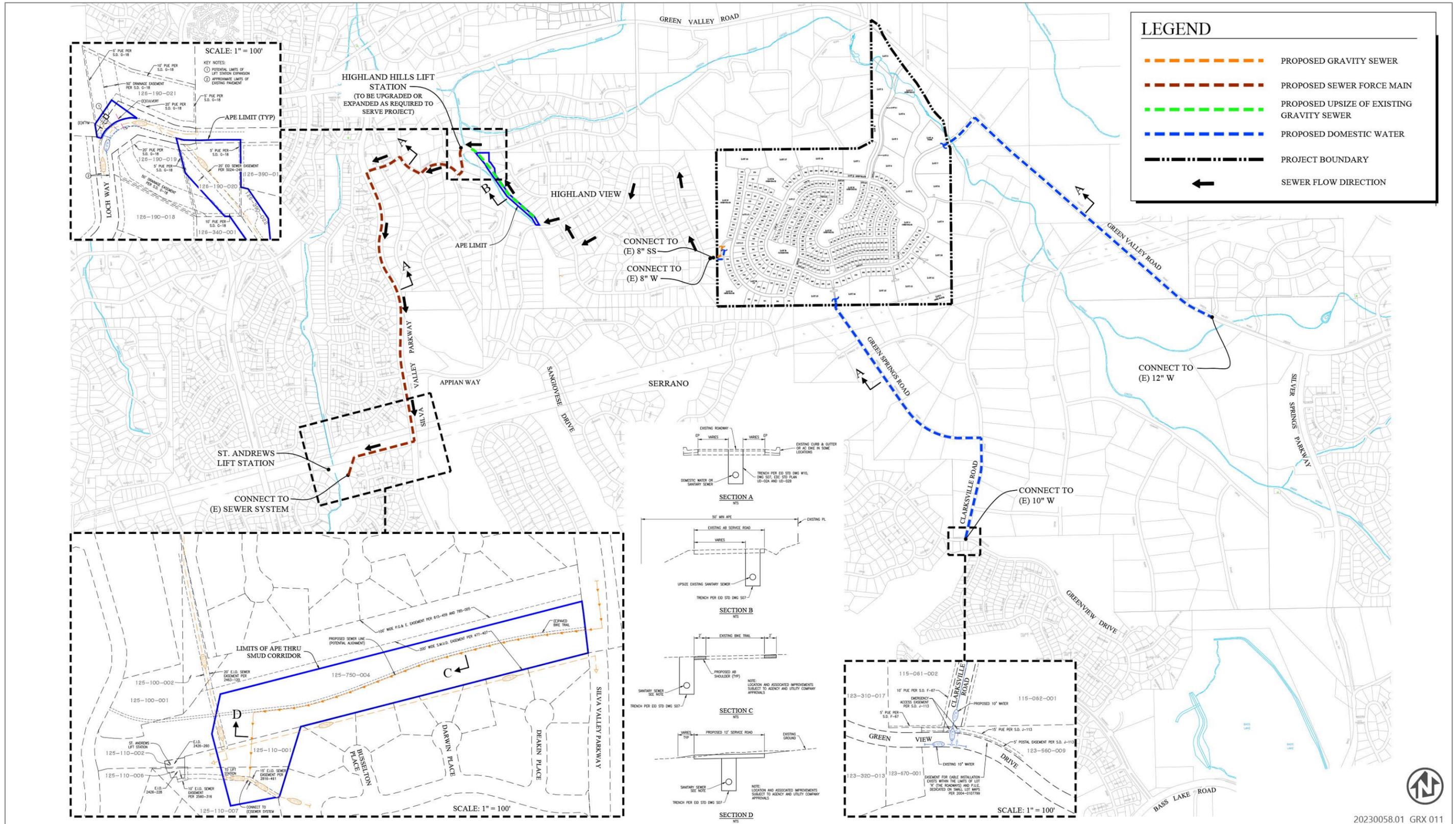
Source: Image produced and provided by CTA Engineering & Surveying in 2021, adapted by Ascent in 2023.

Figure 2-9a Proposed Grading and Drainage Improvements – Northern Portion of Site



Source: Image produced and provided by CTA Engineering & Surveying in 2021, adapted by Ascent in 2023.

Figure 2-9b Proposed Grading and Drainage Improvements – Southern Portion of Site



Source: Image produced and provided by CTA Engineering & Surveying in 2023, adapted by Ascent in 2023.

Figure 2-10 Proposed Off-Site Water and Wastewater Improvements

OFF-SITE WASTEWATER CONVEYANCE IMPROVEMENTS

EID is also proposed to provide wastewater conveyance and treatment services to the project, with the exception of proposed Lot 1 that would continue to use its existing on-site wastewater treatment system and lots 2 through 8 that would construct new on-site wastewater disposal systems. The proposed park site would use a restroom vault that would store wastewater until emptied by a wastewater disposal truck (Figure 2-11). On-site wastewater would be conveyed through a network of pipelines within the project's roadway right-of-way. The project would require the off-site improvements for wastewater conveyance listed below (Figure 2-10).

- ▶ Connection to an existing 8-inch gravity wastewater conveyance pipeline within Lima Way on the project's western boundary.
- ▶ Upsizing of approximately 1,600 linear feet of existing gravity wastewater pipeline upstream of the Highland Hills Lift Station that is currently located within a private open space corridor. The Highland Hills Lift Station is located along Loch Way and would be upgraded or expanded.
- ▶ Construction of approximately 8,500-linear foot force main from the Highland Hills Lift Station to an existing 15-inch gravity wastewater pipeline that flows to the St. Andrews Lift Station along Glenmore Way, Highland Drive, West Glenmore Way, Silva Valley Parkway, and a SMUD utility easement.
 - The St. Andrews Lift Station where the proposed new force main would discharge has limited capacity. Thus, the project identifies an alternative wastewater alignment where the proposed new force main would be extended further south along Silva Valley Parkway where it would connect to a 24-inch gravity flow pipeline south of Harvard Way should adequate capacity not be available at the time of project development (Figure 2-12).

2.5.6 Electrical Service and Improvements

Electrical service and natural gas would be provided by Pacific Gas and Electric (PG&E). Off-site improvements include installation of a new electrical cable through the existing conduit on Sangiovese Drive; new trenching for installation of a 6-inch conduit and cable on a portion of Appian Way; and removal and replacement of cable in an existing conduit along portions of Lima Way, Aberdeen Lane, and Appian Way for a length of approximately 1.4 miles. Additionally, the project would include improvements to electrical distribution facilities along Green Valley Road to the western edge of the Travois Subdivision in Cameron Park for a length of approximately 2 miles. Natural gas service would consist of a connection to the existing natural gas pipeline in Lima Way along the western boundary of the site.

2.6 WILDLAND URBAN INTERFACE FIRE PROTECTION PLAN

The proposed Generations at Green Valley Wildland Urban Interface Fire Protection Plan (Fire Safe Plan or FSP) is provided in Appendix J and addresses potential impacts resulting from wildland fire hazards and identifies measures necessary to mitigate these hazards in conformance with CCR Title 14, Sections 1270 through 1276 (Fire Safe Regulations), CCR Title 24, Part 9, Section 4903 (Plans), El Dorado County Fire Protection Standard W-002 (Wildland Interface Fire Protection Plans), and El Dorado County General Plan Policy 6.2.2.2. The FSP addresses water supply, access, structural ignitability and ignition resistive building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, vegetation management, and evacuation. This plan identifies fuel modification/management zones and recommends the types and methods of treatment that will protect this project and its essential infrastructure. In addition, this FSP recommends enhanced fire protection measures that the project HOA, and individual property owners will take to reduce the probability of structural ignition during the occupancy phase of the project.

The FSP contains the following components that are summarized below:

- ▶ Fire Protection Planning (Chapter 4 of the FSP) consists of proposed fire prevention and emergency planning best practices for the project that provides an assessment of wildfire vulnerability for the project, emergency vehicle access requirements, road and address signage requirements, fire protection water supply requirements, and building design, siting and setbacks.
- ▶ Emergency Preparedness and Pre-Evacuation Planning (Chapter 5 of the FSP) provides a summary of the Generations at Green Valley Wildfire Evacuation Study (Appendix L of the FSP) that evaluates a proposed wildfire scenario impacting the project area and the associated evacuation routes and timing for project and area residents to reach community wildfire safety zones. This chapter also identifies measures for the project HOA to implement to improve evacuation activities.
- ▶ Fuel Reduction Management and Defensible Space Concepts (Chapter 6 of the FSP) provides a proposed fuel modification plan and the following three defensible space zones for specific wildfire fuel reduction standards associated with buildings:
 - Zone 0 – Ember-Resistant Zone (0 to 5 feet from buildings)
 - Zone 1 – Lean, Clean and Geen Zone (30 feet from buildings or to the property line)
 - Zone 2 – Reduce Fuel Zone (30 to 100 feet from buildings or to the property line)

2.7 CONSTRUCTION ACTIVITIES AND PHASING

Project construction is assumed to start in April 2025, with grading and site improvements completed in 3 years and housing construction completed in five years. However, market conditions would ultimately determine the rate and extent of construction. Figures 2-9a and 2-9b provide project grading details. It is anticipated that grading activities (i.e., cut and fill) would be balanced on-site with no need for substantial import or export of soil. Extent of construction workers needed for the project would be determined by the construction contractor at the onset of construction activities.

The project construction would remove approximately 56 acres of oak woodland and 13 heritage trees (as defined by Chapter 130.39 [Oak Resources Conservation] of the County Code of Ordinances) (Figure 2-13). This removal would require obtaining an Oak Tree and Oak Woodland Removal Permit and compliance with the mitigation requirements of Chapter 130.39.

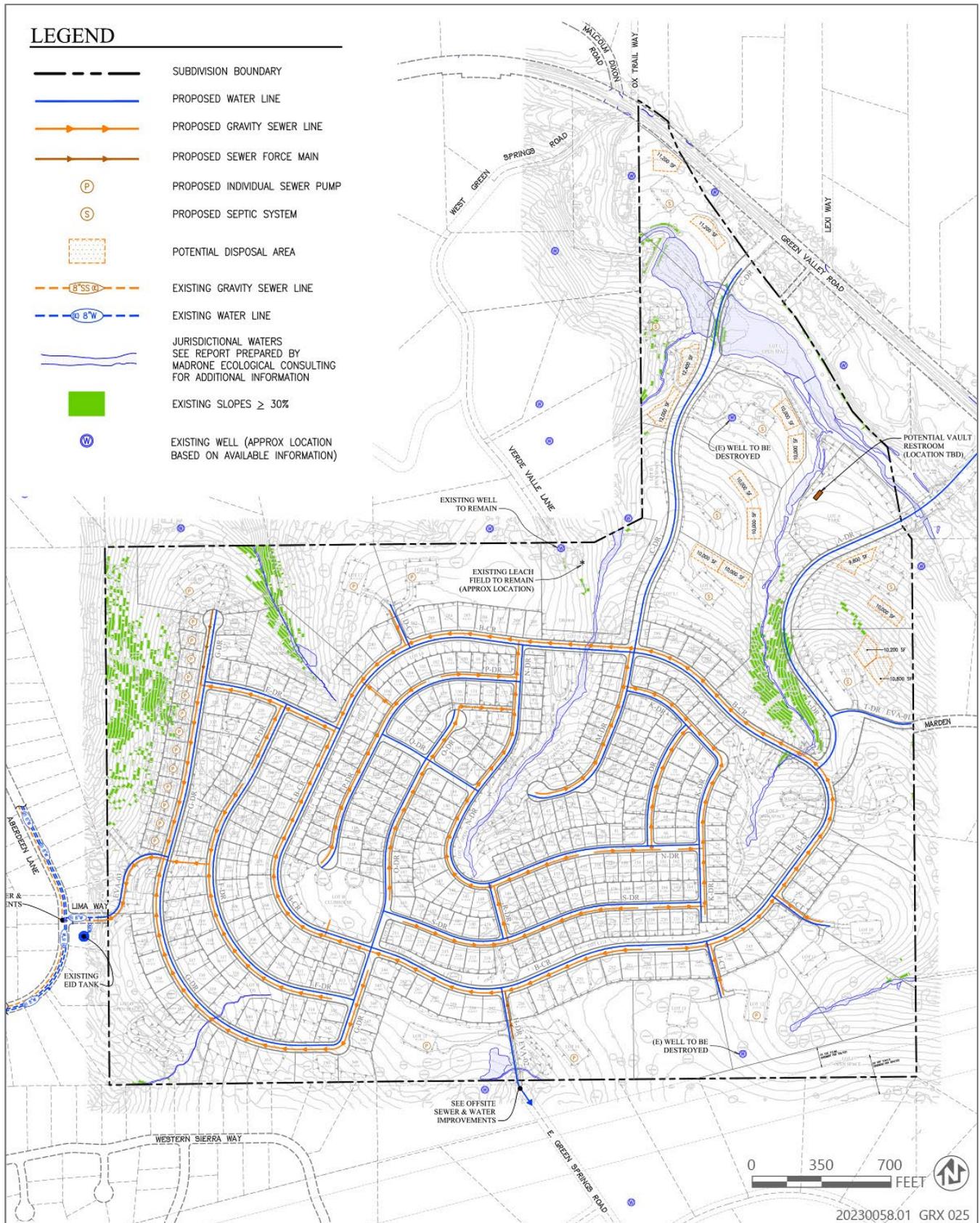
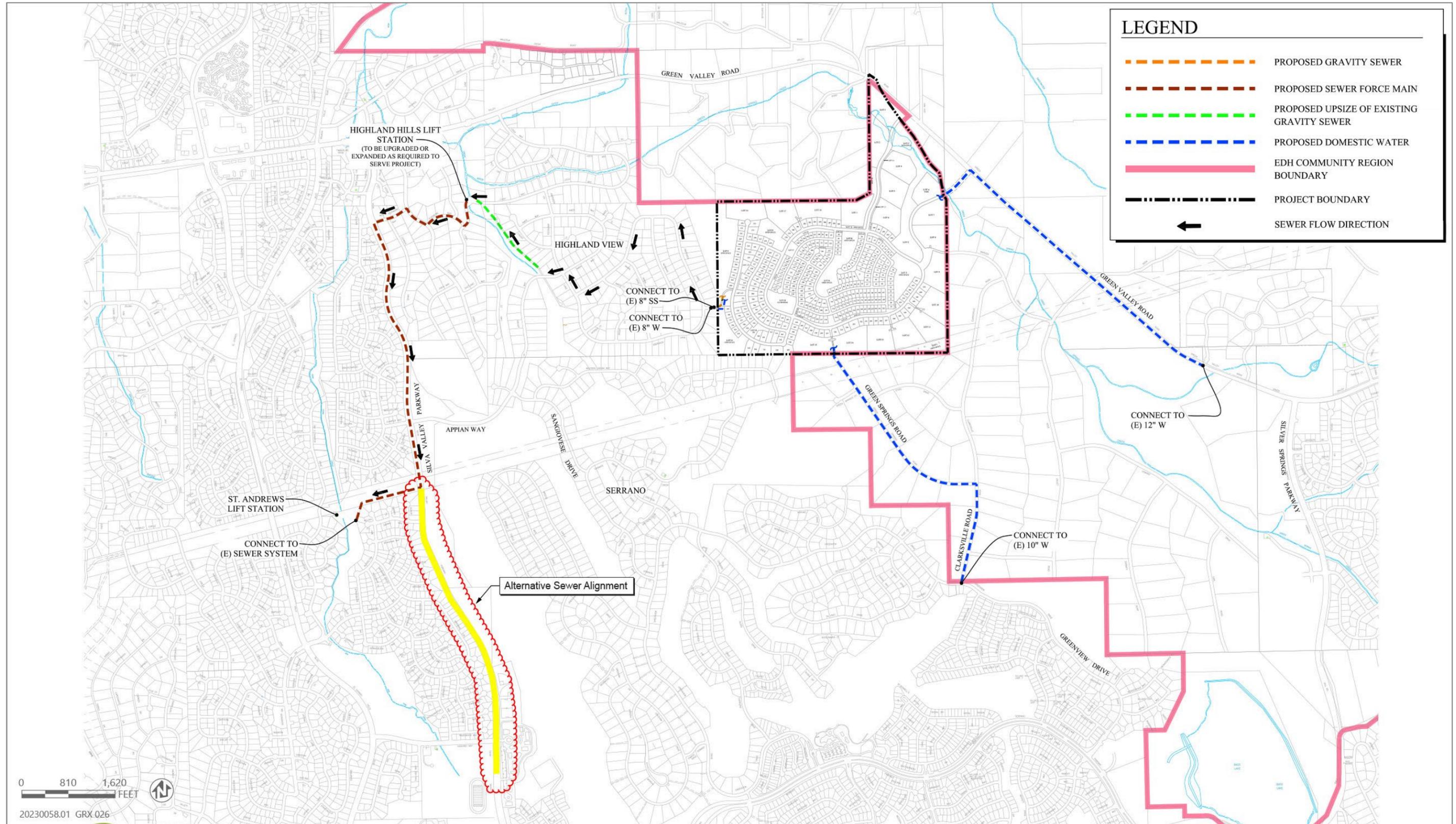


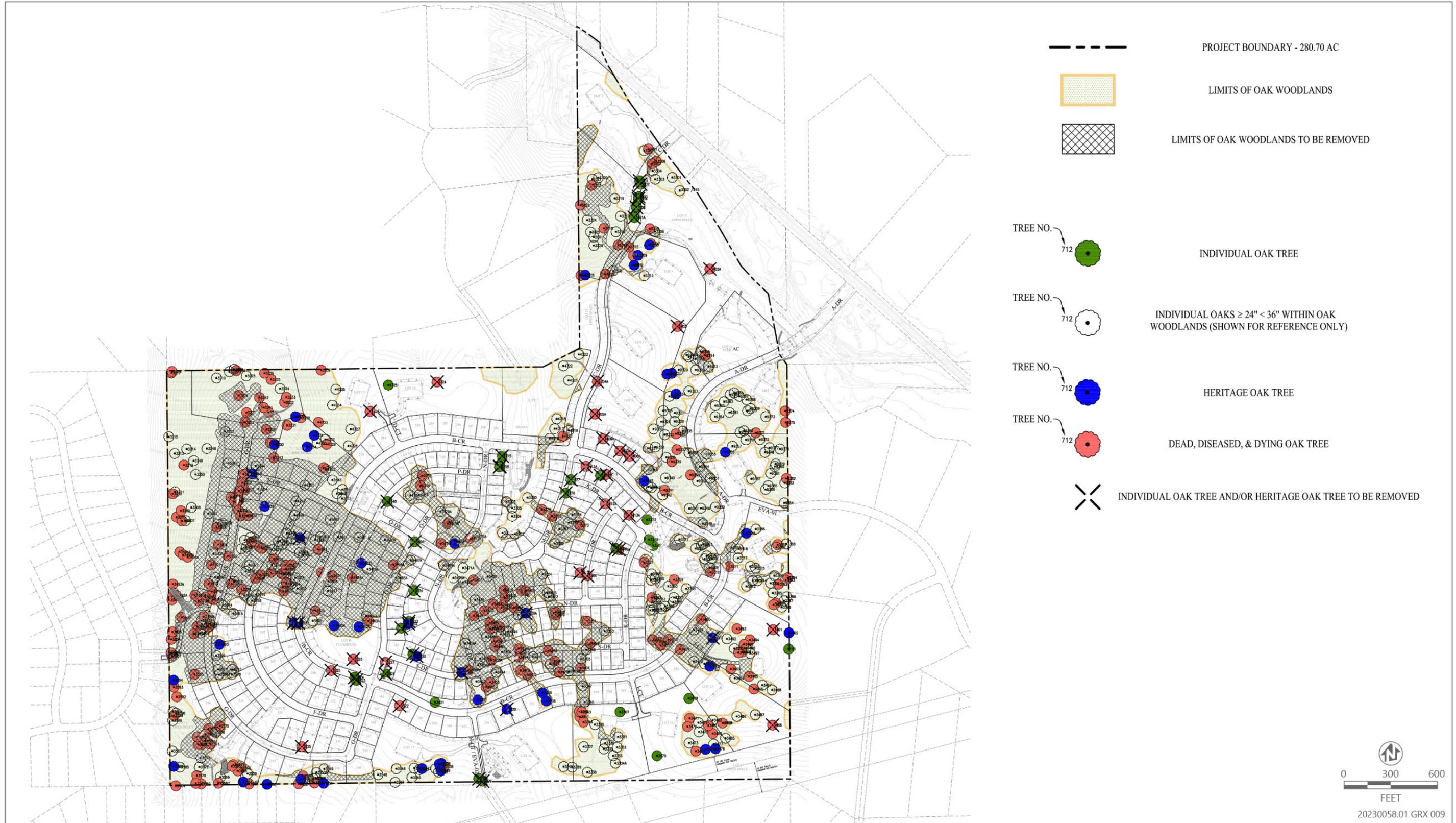
Figure 2-11 On-Site Water and Wastewater Improvements

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Source: Image produced and provided by CTA Engineering & Surveying in 2022, adapted by Ascent in 2024.

Figure 2-12 Off-Site Alternative Wastewater Alignment



Source: Image produced and provided by CTA Engineering & Surveying in 2022, adapted by Ascent in 2023.

Figure 2-13 Proposed Oak Tree Preservation Plan

2.8 POTENTIAL PERMITS AND APPROVALS REQUIRED

Approvals and permits required for the project would include, but are not limited to, the following:

El Dorado County (Lead Agency)

- ▶ Certification of the Final EIR
- ▶ General Plan amendment to change land use designations of the site from LDR and OS to HDR, LDR, and PF
- ▶ Rezone the site from RE-10 and RF-L to R1, OS, RF-H, and RE-5
- ▶ Approval of the proposed tentative subdivision map
- ▶ Approval of a Development Agreement
- ▶ Subsequent actions and approval would include the following:
 - ▶ Approval of final subdivision maps
 - ▶ Approval of Oak Tree and Oak Woodland Removal Permit
 - ▶ Grading permits
 - ▶ Building permits
 - ▶ Permitting of on-site wastewater treatment systems
 - ▶ Encroachment permits

Federal

- ▶ Wetland fill permitting by the US Army Corps of Engineers under Section 404 of the federal Clean Water Act

State

- ▶ Water quality certification by the Central Valley Regional Water Quality Control Board under Section 401 of the federal Clean Water Act
- ▶ Streambed alteration agreement by the California Department of Fish and Wildlife under Section 1602 of the California Fish and Game Code
- ▶ Coverage under Statewide National Pollutant Discharge Elimination System Construction General Permit for Stormwater Discharges (Construction General Permit Order 2022-0057-DWQ)

Local

- ▶ El Dorado LAFCo approval of annexation to the El Dorado Hills CSD, EID, and El Dorado Hills Fire Department
- ▶ El Dorado Hills CSD annexation approval and approval of parkland dedication
- ▶ EID annexation approval and approval of water and wastewater improvements
- ▶ El Dorado Hills Fire Department annexation approval and approval of the project's Wildfire Safe Plan

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3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

APPROACH TO THE ENVIRONMENTAL ANALYSIS

This draft environmental impact report (Draft EIR) evaluates and discloses the environmental impacts associated with the Generations at Green Valley Project, in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulation, Title 14, Chapter 3, Section 1500, et seq.). Sections 3.1 through 3.17 of this Draft EIR present a discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the project, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of the environmental topics identified for review in the notice of preparation (NOP) prepared for the project (see Appendix A of this Draft EIR). Chapter 4 of this Draft EIR, "Cumulative Impacts," presents an analysis of the project's impacts considered together with those of other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. Chapter 5, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to those of the proposed project, as required by Section 15126.6 of the State CEQA Guidelines. Chapter 6, "Other CEQA Sections," includes an analysis of the project's growth inducing impacts, as required by Section 21100(b)(5) of CEQA.

"Baseline" is the time and conditions used as the point of comparison for determining the significance of a proposed project's environmental effects. The EIR uses February 26, 2024 as the baseline to reflect existing environmental conditions, unless otherwise specified and explained in relation to a specific topic addressed in the EIR. This is consistent with State CEQA Guidelines recommendation that the date of issuance of the NOP (February 26, 2024) should normally constitute the baseline conditions upon which comparison of the project should be based (CEQA Guidelines, Section 15125(a)).

Sections 3.1 through 3.17 of this Draft EIR each include the following components.

Regulatory Setting: This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Regulations originating from the federal, state, and local levels are each discussed as appropriate.

Environmental Setting: This subsection presents the existing environmental conditions on the project site and in the surrounding area as appropriate, in accordance with State CEQA Guidelines Section 15125. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The extent of the environmental setting area evaluated (the project study area) differs among resources, depending on the locations where impacts would be expected to occur.

Environmental Impacts and Mitigation Measures: This subsection presents thresholds of significance and discusses significant and potentially significant effects of the Generations at Green Valley Project on the existing environment, including the environment beyond the project boundaries, in accordance with State CEQA Guidelines Section 15126.2. The methodology for impact analysis is described, including technical studies upon which the analyses rely. The thresholds of significance are defined and thresholds for which the project would have no impact are disclosed and dismissed from further evaluation. Project impacts and mitigation measures are numbered sequentially in each subsection (Impact 3.2-1, Impact 3.2-2, Impact 3.2-3, etc.). A summary impact statement precedes a more detailed discussion of each environmental impact. The discussion includes the analysis, rationale, and substantial evidence on which conclusions are based. The determination of level of significance of the impact is presented in bold text. A "less-than-significant" impact is one that would not result in a substantial adverse change in the physical environment. A "potentially significant" impact or "significant" impact is one that would result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation. Mitigation measures are identified, as feasible, to avoid, minimize, rectify,

reduce, or compensate for significant or potentially significant impacts, in accordance with the State CEQA Guidelines Section 15126.4. Unless otherwise noted, the mitigation measures presented are recommended in the EIR for consideration by the State to adopt as conditions of approval.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement as part of the project definition, leaving little discretion in its implementation, and would avoid an impact or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before determining impact significance. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how they are accomplished, or have a substantial compensatory component, the level of significance is determined before applying the influence of the regulatory requirements. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to less- than-significant levels. Significant-and-unavoidable impacts are identified as appropriate in accordance with State CEQA Guidelines Section 15126.2(b). Significant and unavoidable impacts are also summarized in Chapter 6, "Other CEQA Sections."

References: The full references associated with the references cited in Sections 3.1 through 3.17 are presented in Chapter 8, "References," organized by chapter or section number.

3.1 AESTHETICS

This section provides a description of existing visual conditions, meaning the physical features that make up the visible landscape, near the project site and an assessment of changes to those conditions that would occur from project implementation. The effects of the project on the visual environment are generally defined in terms of the project's physical characteristics and potential visibility, the extent to which the project's presence would change the perceived visual character and quality of the environment, and the expected level of sensitivity that the viewing public may have where the project would alter existing views. The "Methodology" discussion, below, provides further detail on the approach used in this evaluation.

Comments received on the Notice of Preparation (NOP) regarding aesthetics included how the views of the neighboring properties will be impacted by the project and potential light pollution from the project. These comments are addressed where appropriate throughout this section. The NOP and comments submitted in response to it are included in Appendix A.

3.1.1 Regulatory Setting

FEDERAL

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

STATE

California Scenic Highway Program

California's Scenic Highway Program, which was created by the California Legislature in 1963, is managed by the California Department of Transportation. The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view.

The program includes a list of eligible highways and officially designated scenic highways, as well as a process for the designation of official state and county scenic highways. The project site is not located within view of a state scenic highway. The nearest highways subject to this program are located approximately 12.15 miles east of the project site: State Route 49, an eligible state scenic highway, and a segment of US 50 that is an officially designated state scenic highway (Caltrans 2023). Thus, designated state scenic highways are not further addressed in this EIR.

LOCAL

El Dorado County General Plan

The El Dorado County General Plan (El Dorado County 2019) includes policies related to visual resources. The following objectives and policies from the El Dorado County General Plan are relevant to the project:

- ▶ **Objective 2.3.1:** Topography and Native Vegetation - Provide for the retention of distinct topographical features and conservation of the native vegetation of the County.
 - **Policy 2.3.1.1:** The County shall continue to enforce the tree protection provisions in the Grading Erosion and Sediment Control Ordinance and utilize the hillside road standards.
- ▶ **Objective 2.3.2:** Hillsides and Ridgelines - Maintain the visual integrity of hillsides and ridge lines.

- **Policy 2.3.2.1:** Disturbance of slopes thirty (30) percent or greater shall be discouraged to minimize the visual impacts of grading and vegetation removal.
- ▶ **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.
- ▶ **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.

El Dorado County Zoning Ordinance

The El Dorado County Zoning Ordinance (Title 130 of the El Dorado County Code of Ordinances) regulates land development and includes standards related to aesthetics. Section 130.24.030 establishes height standards and restricts single-family structures to 45 feet in height.

Outdoor lighting is required to be located, adequately shielded, and directed such that no direct light falls outside the property line or into the public right-of-way (Section 130.34.020) (El Dorado County 2023). Outdoor lighting standards are included in the El Dorado County Community Design Standards that implement this section of the Zoning Ordinance. It applies to residential zones and all development in commercial, industrial, research and development zones, as well as civic and utility lighting in all zones. These standards include requirements on the extent of illumination, height of outdoor light fixtures, and cutoff of light distribution to avoid impacts to adjoining land areas (El Dorado County 2015).

El Dorado Hills Community Services District

The El Dorado Hills Community Services District's (CSD's) Policy Guidelines, Policy Series 6000 – Facility Development document, includes policies related to lighting associated with facility developments and landscaping design. The following policies from the El Dorado Hills CSD's Policy Series are relevant to the project:

- ▶ **Policy 6130.50:** The following policies are to guide preparation of landscape easement construction plans:
 - K. Lighting
 1. For safety and protection of residents, intersections at collector roads and main arterial roads shall require PG&E-owned street lighting with high pressure sodium vapor lamps and shall conform with PG&E standards.
 2. Landscape lighting for entryway signs and monuments may be incorporated with consideration to:
 - a) Light beams shall not trespass adjacent areas.
 - b) Lighting shall not be angled to create glare for passing traffic.
 - c) Lighting fixtures shall be hidden from view through plantings.

3.1.2 Environmental Setting

VISUAL CHARACTER OF THE PROJECT SITE

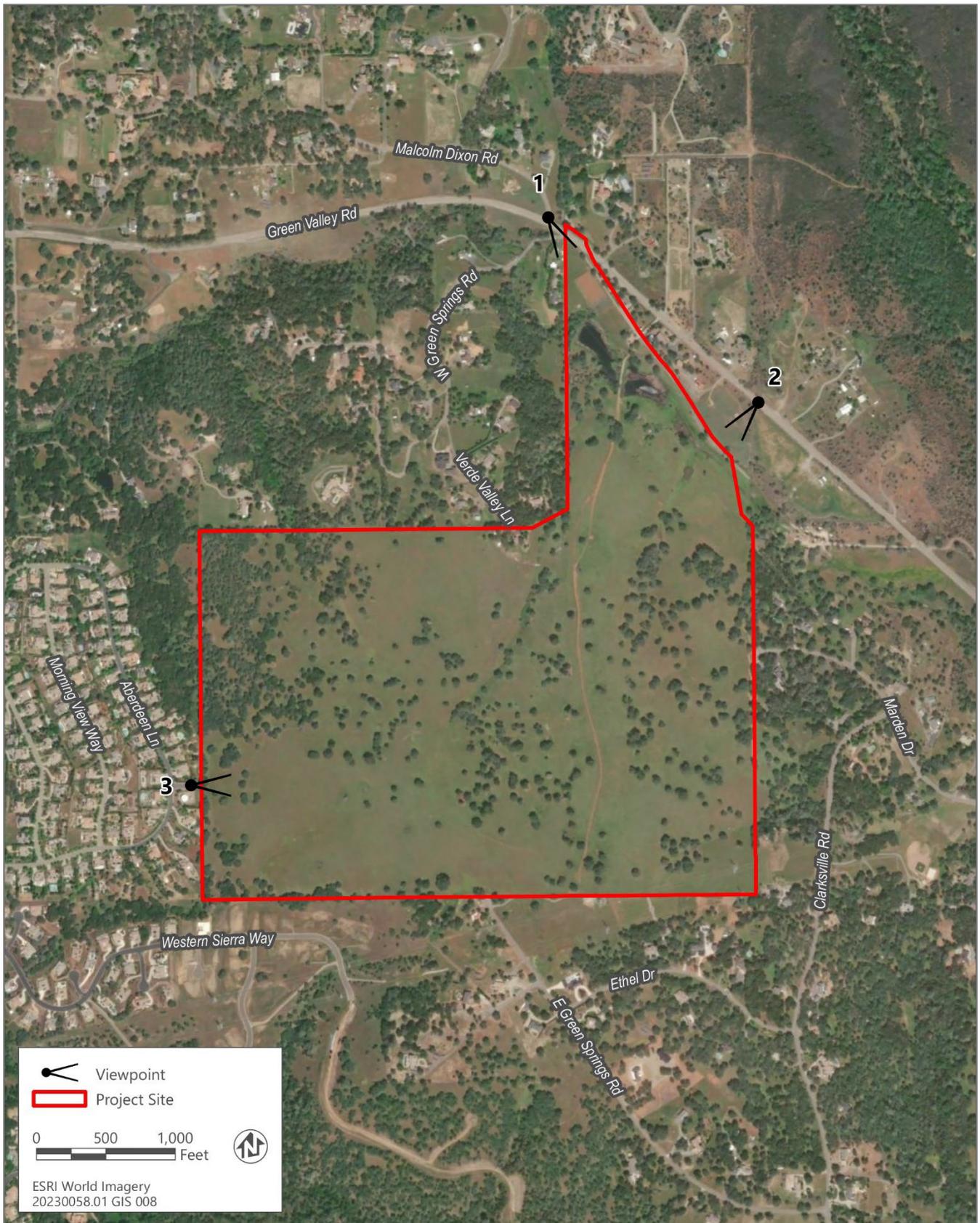
The project site is located on 280 acres in an unincorporated area of El Dorado County, in the eastern portion of the El Dorado Hills Community Region. The project site is currently undeveloped and consists of grassland vegetation, oak woodlands and scattered oak trees, on-site ponds and a creek. Prominent public view points of the site are shown in Figure 3.1-1.

As shown in Figures 3.1-1 through 3.1-3, the project site is publicly visible from Green Valley Road. Green Valley Road does not include public scenic viewpoints identified in Table 5.3-1 of the El Dorado County General Plan Draft EIR (El Dorado County 2003: 5.3-3). Other public views of the site are limited to Lima Way, which is located to the west of the site. Lima Way is a public roadway approximately 160 feet in length that ends adjacent to the western project boundary and has no public land uses (e.g., parks) or residents along its corridor. The public view corridor in the project site is approximately 60 feet in width at the Aberdeen Lane/Lima Way intersection. Public views from Lima Way into the project site are currently obstructed by existing vegetation and topography. Views into project site are available at the fence line of the project boundary at the top of the hill beyond the termination of Lima Way (Figure 3.1-4). However, views into the project site from this viewpoint are obstructed by on-site oak woodlands.

The topography of the site is varied, with the center of the site being generally higher in elevation and relatively flat compared to the periphery of the site. Slopes range from flat to greater than 40 percent. The project site is used for seasonal grazing. Additionally, a small strawberry field is located on the northern portion of the site with associated structures in the area. A Sacramento Municipal Utility District (SMUD) utility easement, which would not serve the project site, contains a 230-kilovolt electrical transmission line and traverses the southeastern corner of the project site. Additionally, above-ground wooden utility poles traverse across the northern portion of the project site, along Green Valley Road, further extending to the Travois Subdivision in Cameron Park. The aboveground wooden electrical power lines along Green Valley Road are currently serving the surrounding area.

Motorists traveling along Green Valley Road have views into the project site for a distance of approximately 0.50 miles between Malcolm Dixon Road and the Green Valley Farms stand site. This viewshed of approximately 0.50 miles provides for a 32 second duration of views of the project site (assuming a vehicle is traveling the posted speed limit of 55 miles per hour). These public views along Green Valley Road are partially obstructed by residences and trees along Old Green Valley Road. As shown in Figures 3.1-2 and 3.1-3, views deep into the project site are limited due to on-site topography (hillside) and oak woodland conditions. Public views from Lima Way are also obstructed from topography and existing oak woodland conditions on the project site, as described above.

Private views of the project site are available from existing residential and rural residential lots along the project's boundary. These private views vary from open view conditions to obstructed view conditions due to on-site oak woodland conditions (see Figure 3.1-1).



Source: Prepared by Ascent 2023.

Figure 3.1-1 Public Viewpoints of Project Site along Green Valley Road



Source: Photograph taken by Ascent in 2023.

Figure 3.1-2 View of Project Site from Viewpoint 1, along Green Valley Road at Malcom Dixon Road Looking South



Source: Photograph taken by Ascent in 2023.

Figure 3.1-3 View of Project Site from Viewpoint 2, along Green Valley Road, Looking Southeast



Source: Photograph taken by Ascent in 2023.

Figure 3.1-4 View of Project Site from Viewpoint 3, at end of Lima Way, Looking East

VISUAL CHARACTER OF THE SURROUNDING AREA

As mentioned above, the project site is located in an unincorporated area of El Dorado County, specifically in the eastern portion of the El Dorado Hills Community Region. The project site and vicinity are located in the foothills of El Dorado County, on rolling terrain. The visual character of the surrounding area includes a mix of built and natural elements. Areas surrounding the project site consist of residential and rural residential land uses that are zoned as single-unit residential (R1), residential estate (RE), open space (OS), and rural land (RL). A neighborhood and land located west and southwest of the project site are zoned as R1, more specifically zoned Residential 20,000 (R20K). The R20K zone, which has a minimum lot size of 20,000 square feet, applies to lands designated as High Density Residential in the General Plan. The R20K zone creates a typical single-unit residential environment surrounding the western portion of the project area through the high density and character of the suburban residential neighborhoods, shown in Figure 3.1-5 from Lima Way. Moving east through the project area, land areas adjacent to the project site are zoned as RE, with a minimum lot size of 5 acres, and RL, land suitable for limited residential development. The character of the surrounding land starts to transition from highly dense residential neighborhoods, into a rural residential environment on lots 5 acres and greater in size. The project site is located within the transitional space between the higher density residential development to the west and the rural residential development to the east, as it is located on the eastern boundary of the El Dorado Hills Community Region. While the Green Valley Road corridor is densely populated with mature trees and vegetation that block views of the suburban residential neighborhoods in the El Dorado Hills Community Region, the landscape characteristics of the roadway corridor transition from the suburban residential development to the more rural residential development to the east, through the opening of distant views of the foothills. Most of the surrounding land to the east consists of rolling hills with mature trees and vegetation, with residential units scattered throughout the area, particularly along Green Valley Road. Utility lines are located adjacent to Green Valley Road, and barbed wire fences are located along the perimeter of the residential units that surround the project site to distinguish the properties from each other.

LIGHT AND GLARE CONDITIONS IN THE PROJECT AREA

No substantial sources of light or glare are present on the project site. Sources of nighttime lighting around the site are minimal. Residential neighborhoods and units surrounding the project site create nighttime light from interior and exterior lights that can be seen from the site. Additionally, occasional glare and light are created by vehicles accessing roads surrounding the project site, as well as limited street lighting along Green Valley Road.



Source: Photograph taken by Ascent in 2023.

Figure 3.1-5 View of Existing Residential Areas at the Intersection of Aberdeen Lane/Lima Way West of the Project Site

3.1.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The methodology used for this assessment of impacts on aesthetics, light, and glare compares the existing built and natural environment to the future built and natural environment and addresses the visual changes that would result from implementation of the proposed project. Key public view corridors were examined, and existing views to and from the project site were compared to those that would be expected to occur in the future with implementation of the proposed project. Pursuant State CEQA Guidelines Appendix G, Section I (Aesthetics), the analysis of the alteration of the visual character of a project area is limited to impacts on public views. The California Court of Appeal's decision for *Mira Mar Mobile Community v. City of Oceanside* (119 Cal.App.4th 477) confirmed within the context of CEQA, impacts related to visual character or quality shall consider the protection of public views.

The process of evaluating visual resources near the project site and the surrounding areas involved the following steps:

- ▶ Identify the visual features or resources that make up and define the visual character of the viewsheds. (A viewshed is a physiographic area that is composed of land, water, biotic, and cultural elements that may be viewed and mapped from one or more viewpoints and that has inherent scenic qualities and/or aesthetic values as determined by those who view it.)
- ▶ Assess the quality of the identified visual resources relative to overall project area visual character.
- ▶ Identify major viewer groups, and describe viewer exposure.
- ▶ Identify viewer sensitivity, or the relative importance of views to people who are members of the viewing public.

The following concepts were used to evaluate the project's effects on visual resources from public views:

- ▶ Visual quality depends on the degree to which landscape features combine to provide striking and distinctive visual patterns, whether or not intrusive elements are dominant in the views, and the visual or compositional harmony of the views.

- ▶ The viewer's distance from landscape elements plays an important role in the determination of an area's visual quality. Visibility and visual dominance of landscape elements depend on their placement in a viewshed. Viewer sensitivity is also considered in assessing the impacts of visual change and is a function of several factors.
- ▶ The sensitivity of the viewer, or viewer concern, is based on the visibility of resources in the landscape, proximity of the viewers to the visual resource, elevation of the viewers relative to the visual resource, frequency and duration of views, number of viewers, and types and expectations of individuals and viewer groups.

THRESHOLDS OF SIGNIFICANCE

An impact on aesthetics, light, and glare would be significant if implementation of the project would:

- ▶ have a substantial adverse effect on a scenic vista;
- ▶ damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- ▶ in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings; or
- ▶ create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

ISSUES NOT DISCUSSED FURTHER

Scenic Vista

As described above, public views of the project are limited to Green Valley Road and Lima Way. Neither of these roadways are identified by the county as providing public scenic viewpoints and are not identified in Table 5.3-1 of the El Dorado County General Plan Draft EIR (El Dorado County 2003: 5.3-3). Thus, no impacts to scenic vistas are expected and this impact is not discussed further in this EIR.

Scenic Highways

No designated or eligible state scenic highways are in the vicinity of the project site, and the site is not visible from any officially designated or eligible state scenic highway. The nearest highways subject to this program are located approximately 12.15 miles east of the project site: State Route 49, an eligible state scenic highway, and a segment of US 50 that is an officially designated state scenic highway. Impacts on scenic highways are not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: Substantially Degrade the Existing Visual Character or Quality of Public Views of the Site and Its Surroundings

Development of the proposed project would result in 379 residential lots, a clubhouse lot, a park site lot, 13 landscape lots, and nine open space lots on the 280-acre project site, as well as associated off-site roadway and utility improvements, altering the nonurbanized, open space landscape of the site to a suburban development. However, the project design includes open space and rural residential lots that would buffer and transition to the development in a manner that would be visually consistent with surrounding residential development. Further, the project would be consistent with General Plan policies that address visual resources. For these reasons, this impact would be **less than significant**.

The project site is located on undeveloped and nonurbanized land consisting of grassland, oak woodlands and scattered oak trees, on-site ponds and a creek, and wetland features in unincorporated El Dorado County. Implementing the project would result in General Plan land use designation amendments, rezoning, and approval of a tentative subdivision map to create 379 residential lots, a clubhouse lot, a park site lot, 13 landscape lots, and nine

open space lots on the 280-acre project site, as well as associated off-site roadway and utility improvements. Development of the site would alter the visual character of the site, changing an open space landscape to a suburban development. As previously described, public views of the project site are visible from Green Valley Road to the east and from Lima Way on the west.

As described in Section 3.1.2, "Environmental Setting," Green Valley Road provides the most extensive public views of the site. These public views along Green Valley Road are partially obstructed by residences and trees along Old Green Valley Road. As shown in Figure 3.1-2 and 3.1-3 and the line of sight analysis provided in Figure 3.1-6, views deep into the project site are limited due to on-site oak woodland that would be retained in proposed open space and RE-5 zoned residential lots and topography conditions (hillsides facing Green Valley Road). Open views of project features would be limited to the proposed RE-5 zoned residential lots 1, 2, 4, 5, 7, and 8 that would be 5 acres or greater in size as well as the proposed park site and open space Lot C (see Figure 2-6). These lot sizes and associated residential development would be similar in character to existing rural residential development to the north, east, and south of the project site as well as along the Green Valley Road corridor in the project area. As shown in Figure 3.1-6, the existing oak woodland and topographic conditions viewed from Green Valley Road would obscure public views of the denser residential development proposed in the central portion of the site that would be located over 0.25 miles from Green Valley Road. In addition, this viewshed is approximately 0.50 miles and only provides for a 32 second duration of views of the project site (assuming a vehicle is traveling the posted speed limit of 55 miles per hour). Given the distance of potential views of proposed dense residential development, oak woodland and topographic conditions that would obscure views of site development, and the limited duration that views into the project site are available, the project would not result in a substantial alteration of the visual character of the Green Valley Road corridor as compared to existing conditions.

While the development of proposed C-Drive and A-Drive and the associated frontage improvements to Green Valley Road would be visible, these improvements would not add additional travel lanes to Green Valley Road and would appear similar to other intersection improvements along Green Valley Road in the project area (e.g., intersection of Deer Valley Road and Green Valley Road).

Public views from Lima Way would be altered with the extension of Lima Way as one of the three proposed emergency access roads, proposed tree removal, grading, and site development. This alteration could allow for public views of future residential development of the site. However, these potential public views of residential development on the project site would be limited to the two residences adjacent to Lima Way and pedestrians passing Lima Way. Ultimately, the proposed residential uses would be generally similar in character to the existing subdivision where Lima Way is located.

Construction related to the off-site infrastructure and roadway improvements would be temporary and would not result in permanent scenic changes, as the scenic character and quality of the roadways and surroundings would return to their previous visual condition.

As shown in Figure 2-6, the project design proposes the use of RE-5 densities and open space lots to transition the extent of site development and blend with adjoining land areas and substantially minimizes development activity on slopes greater than 30 percent as shown in Figure 3.6-2. As further discussed in Section 3.6, "Geology and Soils", portions of the project site, primarily within the eastern and western portions, contain slopes greater than 30 percent. However, these larger slopes would be located within the proposed open space lots of the project and would experience little development activity. This would be consistent with General Plan Objectives 2.3.1, 2.3.2, 2.5.1, and associated Policies 2.3.1.1, 2.3.2.1, and 2.5.1.1 that identify retention of topographic conditions and vegetation, as well as visual and physical separation of communities from new development.

Therefore, the impact related to scenic character and quality of public views of the site and its surroundings would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.



Source: CTA Engineering and Surveying 2024.

Figure 3.1-6 Line of Sight Analysis from Green Valley Road Public Views 1

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

Project implementation would result in an increase in the amount of light and glare on the project site, which would affect nighttime views in the area. However, the project would comply with General Plan policies and El Dorado County's Zoning Ordinance and associated standards, which would require outdoor lighting to be shielded and directed so as not to have direct light fall outside property lines or public rights-of-way. Because the completed project would have similar characteristics with existing development in the project area, causing the completed project to coincide with the surrounding development, as well as comply with the mentioned regulations, implementing the project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. This impact would be **less than significant**.

Implementation of the project would result in the development of static features, such as residential units and windows, and mobile features, such as cars, which would introduce new sources of light and daytime glare. Most homes emit some source of light and glare during day and evening hours, as is typical in a suburban environment. Implementation of the project would also result in outdoor lighting at intersections and potentially along roadways and pathways, as well as indoor and outdoor lighting associated with residential units, recreational facilities, and parks. While no lighted sports fields or courts at the park site are proposed by the project, outdoor lighting associated with the proposed park site and clubhouse site would have the potential to increase nighttime light and glare. Currently, there are no outdoor or indoor lighting designs for the project site that address lighting along roadways, pathways, or within residential units, recreational facilities, and parks. The El Dorado Hills Community Services District would design the park features after project approval and acquisition of the park and would determine whether lighted sports fields or courts would be included in the future park design and identify light pollution controls under a separate project by the CSD. Project lighting would comply with the Outdoor Lighting Standards in the Community Design Standards. Additionally, the proposed RE-5 zoned residential lots and open space lots around the perimeter of the project would serve as a buffer for new lighting and glare sources introduced by the project by adding more distance between the project site and from public views along Green Valley Road. Additionally, the location of the more densely proposed R1 residential lots would be out of public view due to the topography, as well as the distance from Green Valley Road (Figure 3.1-6). Additionally, new light and glare sources would blend in and be consistent with the current light and daytime glare sources from the surrounding neighborhood on Lima Way. The existing mature trees, as well as topography, within the perimeter of the project would be retained and would further screen and reduce potential sources of daylight glare that may be produced from project implementation. The proposed RE-5 lots, open space lots, existing vegetation, and topography, as well as distance, would aid in obstructing and reducing the intensity of new light and glare sources during the day.

Compliance with General Plan Policy 2.8.1.1 and Section 130.34.020 of the County Zoning Ordinance would require development to shield and direct all outdoor lighting to ensure that direct light does not fall outside the property line or into the public right-of-way. Policy 6130.50(K) of the El Dorado Hills Community Services District's Policy Series would be implemented through project design and would require public roadway portions of the C-Drive and A-Drive (outside of the proposed project gates) to consist of street lighting with high pressure sodium vapor lamps, conforming with PG&E standards. Landscape lighting associated with entryway signs may also be incorporated with the consideration that lighting shall not trespass adjacent areas, be angled to create glare for passing traffic, and shall be hidden from view through plantings. Additionally, the Outdoor Lighting Community Design Standards, Sections 3.5(B) and 3.5(C) includes the following additional requirements that would be applicable to the project:

- ▶ Lighting installation must be in close proximity to residences or activity areas,
- ▶ Security lighting must be motion-sensor activated,
- ▶ A lighting plan for new development must be prepared and submitted to the County with the proposed lighting installation, and
- ▶ Performance facilities must adhere to use-specific lighting plan requirements and light curfews, including turning off lighting no greater than 30 minutes after the event.

Features to reduce excess nighttime light and glare, such as the use of directional shielding and automatic shutoff or motion sensors, would be incorporated into the project design. Compliance with General Plan policies, Zoning Ordinance, and associated lighting standards would ensure that light and glare associated with the project would be minimized and reduced so as not to create a substantial light or glare source that would adversely affect day or nighttime views in the area surrounding the project site. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.2 AIR QUALITY

This section includes a summary of applicable air quality regulations, a discussion of existing air quality conditions, and an analysis of potential short- and long-term air quality impacts that could result from the implementation of the project. The methods of analysis for short-term construction, long-term regional (operational), local mobile-source, and toxic air emissions and odors are consistent with the guidance from the El Dorado County Air Quality Management District (EDCAQMD), the California Air Resources Board (CARB), and the US Environmental Protection Agency (EPA).

Comments related to air quality were received in response to the NOP. These included comments from several members of the public which included concerns regarding ozone, asbestos, dust, and TAC emissions from the project. The NOP and comments submitted in response to it are included in Appendix A.

3.2.1 Regulatory Setting

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

FEDERAL

EPA has been charged with implementing national air quality programs. EPA's air quality mandates draw primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments were made by Congress in 1990. EPA's air quality efforts address both criteria air pollutants and hazardous air pollutants (HAPs).

Criteria Air Pollutants

The CAA required EPA to establish national ambient air quality standards (NAAQS) for six common air pollutants found all over the United States, referred to as criteria air pollutants. EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀), and fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), and lead. Criteria air pollutants are compounds that, at certain concentrations, can cause harm to human and animal health and the environment. Extensive scientific and economic research has been conducted to evaluate the specific concentrations at which these pollutants may cause harm to health and the environment. These concentrations are reflected in EPA's NAAQS, which are shown in Table 3.2-1. The primary standards protect public health, and the secondary standards protect public welfare. The CAA also required each state to prepare a state implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, it may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

California's SIP is updated periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The 2022 SIP, adopted on September 22, 2022, is the most current SIP and is a compilation of plans and regulations that govern how the region and state will comply with the CAA requirements to attain and maintain the NAAQS for ozone and PM_{2.5}.

Table 3.2-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS) ^{ab}	National NAAQS) ^c	
			Primary ^{bd}	Secondary ^{be}
Ozone	1-hour	0.09 ppm (180 µg/m ³)	— ^e	Same as primary standard
	8-hour	0.070 ppm (137 µg/m ³)	0.070 ppm (147 µg/m ³)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	—
	8-hour	9 ppm ^f (10 mg/m ³)	9 ppm (10 mg/m ³)	
Nitrogen dioxide (NO ₂)	Annual arithmetic mean	0.030 ppm (57 µg/m ³)	53 ppb (100 µg/m ³)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	—
Sulfur dioxide (SO ₂)	24-hour	0.04 ppm (105 µg/m ³)	—	—
	3-hour	—	—	0.5 ppm (1,300 µg/m ³)
	1-hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	—
Respirable particulate matter (PM ₁₀)	Annual arithmetic mean	20 µg/m ³	—	Same as primary standard
	24-hour	50 µg/m ³	150 µg/m ³	
Fine particulate matter (PM _{2.5})	Annual arithmetic mean	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
	24-hour	—	35 µg/m ³	Same as primary standard
Lead ^f	Calendar quarter	—	1.5 µg/m ³	Same as primary standard
	30-day average	1.5 µg/m ³	—	—
	Rolling 3-month average	—	0.15 µg/m ³	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m ³)	No national standards	
Sulfates	24-hour	25 µg/m ³		
Vinyl chloride ^f	24-hour	0.01 ppm (26 µg/m ³)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

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

- ^a California standards for ozone, carbon monoxide, SO₂ (1- and 24-hour), NO₂, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- ^b Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- ^c National standards (other than the standards for ozone and particulate matter and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM₁₀ 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than 1. The PM_{2.5} 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the US Environmental Protection Agency for further clarification and current federal policies.
- ^d National primary standards: The levels of air quality necessary, with an adequate margin of safety, to protect public health.
- ^e National secondary standards: The levels of air quality necessary to protect public welfare from any known or anticipated adverse effects of a pollutant.
- ^f The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: CARB 2016.

EPA has established a number of emission standards for on- and off-road heavy-duty diesel engines used in trucks and other equipment. These standards were established in part because diesel engines are a significant source of oxides of nitrogen (NO_x), PM₁₀, and PM_{2.5} and because EPA has identified diesel particulate matter as a probable carcinogen. Implementation of the on-road heavy-duty diesel engine standards and the off-road heavy-duty diesel engine standards is estimated to reduce particulate matter and NO_x emissions from diesel engines by up to 95 percent in 2030, by which time the heavy-duty vehicle fleet will be completely replaced with newer heavy-duty vehicles that comply with these emission standards.

In concert with the diesel engine emission standards, EPA regulations have also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The new standards reduced the amount of sulfur allowed by 97 percent for highway diesel fuel (from 500 parts per million by weight [ppmw] to 15 ppmw), and by 99 percent for off-highway diesel fuel (from approximately 3,000 ppmw to 15 ppmw). The low-sulfur highway fuel (15 ppmw sulfur), also called ultra-low sulfur diesel, is currently required for use by all vehicles in the United States. All the aforementioned federal diesel engine and diesel fuel requirements have been adopted by California, in some cases with modifications making the requirements more stringent or the implementation dates sooner.

Hazardous Air Pollutants and Toxic Air Contaminants

Toxic air contaminants (TACs), or, in federal parlance, HAPs, are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

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

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

EPA regulates HAPs through its National Emission Standards for Hazardous Air Pollutants. The standards for a particular source category require the maximum degree of emission reduction that EPA determines to be achievable, which is known as the Maximum Achievable Control Technology (MACT) standards. These standards are authorized by Section 112 of the 1970 CAA, and the regulations are published in 40 Code of Federal Regulations (CFR) Parts 61 and 63.

STATE

California Air Resources Board

CARB is the agency responsible for the coordination and oversight of state and local air pollution control programs in California and for the implementation of the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish CAAQS (see Table 3.2-1).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned federally regulated criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effect studies considered during the

standard-setting process and the interpretation of the study results. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. It specifies that local air districts should focus particular attention on reducing the emissions from transportation and areawide emission sources. The CCAA also provides air districts with the authority to regulate indirect sources, such as vehicle movement and residential, commercial, and industrial development.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (Hot Spots Act) (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. In 1998, particulate matter exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

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

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

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With the implementation of CARB's Risk Reduction Plan and other regulatory programs, it is estimated that emissions of diesel PM will be less than half of those in 2010 by 2035 (CARB 2020). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

LOCAL

El Dorado County Air Quality Management District

Criteria Air Pollutants

EDCAQMD attains and maintains air quality conditions in El Dorado County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean-air strategy of EDCAQMD includes preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, and issuing permits for stationary sources of air pollution. EDCAQMD also inspects stationary sources of air pollution and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations required by the CAA, CAA Amendments, and CCAA.

EDCAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the SIP for ozone. The Sacramento region, which includes the western portion of El Dorado County, has been designated as a "moderate" 2015 8-hour ozone nonattainment area with an extended attainment deadline of August 2024 (EPA 2023a). The 2018 Sacramento Regional 2008 8-Hour Ozone Attainment and Further Reasonable Progress Plan was

approved by CARB on November 16, 2017. The previous (2013) Update to the 8-Hour Ozone Attainment and Reasonable Further Progress Plan was approved and promulgated by EPA for the 1997 8-Hour Ozone Standard. At a public meeting held on October 26, 2023, CARB voted to approve the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2023 Ozone Plan). The 2023 Ozone Plan was prepared by the five local air districts of the Sacramento Federal Non-attainment Area (Sacramento Region, or SFNA) with the support of CARB. The SFNA requested a reclassification to "severe" with an attainment deadline of August 3, 2033. The 2023 Ozone Plan addresses the CAA requirements associated with the "severe" classification and how the SFNA can attain the standard by the attainment date. The 2023 Ozone Plan is an air quality attainment plan (AQAP) applicable to development in the project area.

All projects in El Dorado County are subject to adopted EDCAQMD rules and regulations in effect at the time of construction. The following specific rules may apply to construction of the project:

- ▶ **EDCAQMD Rule 202, Visible Emissions.** A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated as number 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
- ▶ **EDCAQMD Rule 205, Nuisance.** Prohibits discharge of air contaminants or other material that 1) cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; 2) endanger the comfort, repose, health, or safety of any such persons or the public; or 3) cause, or have a natural tendency to cause, injury, or damage to business or property.
- ▶ **EDCAQMD Rule 207, Particulate Matter.** Limits particulate matter emissions in excess of 0.1 grains per cubic foot of dry exhaust gas.
- ▶ **EDCAQMD Rule 215, Application of Architectural Coatings.** No person shall: (i) manufacture, blend, or repackage for sale within EDCAQMD; (ii) supply, sell, or offer for sale within EDCAQMD; or (iii) solicit for application or apply within EDCAQMD, any architectural coating with a volatile organic compound (VOC) content in excess of the corresponding specified manufacturer's maximum recommendation. "Manufacturer's maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.
- ▶ **EDCAQMD Rule 223-1, Fugitive Dust.**
 - **Visible Emissions Not Allowed Beyond the Boundary Line:** A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area (including disturbance as a result of the raising and/or keeping of animals or by vehicle use), such that the presence of such dust remains visible in the atmosphere beyond the boundary line of the emission source.
 - **Visible Emissions from Active Operations:** In addition to the requirements of Rule 202, Visible Emissions, a person shall not cause or allow fugitive dust generated by active operations, an open storage pile, or a disturbed surface area, such that the fugitive dust is of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke as dark or darker in shade as that designated as number 2 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
 - **Concentration Limit:** A person shall not cause or allow PM₁₀ levels to exceed 50 micrograms per cubic meter (24-hour average) when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other EPA-approved equivalent method for PM₁₀ monitoring.
 - **Track-Out onto Paved Public Roadways:** Visible roadway dust as a result of active operations, spillage from transport trucks, and the track-out of bulk material onto public paved roadways shall be minimized and removed.

The track-out of bulk material onto public paved roadways as a result of operations, or erosion, shall be minimized by the use of track-out and erosion control, minimization, and preventative measures, and

removed within 1 hour from adjacent streets any time track-out extends for a cumulative distance of greater than 50 feet onto any paved public road during active operations.

All visible roadway dust tracked-out upon public paved roadways as a result of active operations shall be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations. Wet sweeping or a High Efficiency Particulate Air filter equipped vacuum device shall be used for roadway dust removal.

Any material tracked-out, or carried by erosion, and clean-up water, shall be prevented from entering waterways or storm water inlets as required to comply water quality control requirements.

- **Minimum Dust Control Requirements:** The following dust mitigation measures are to be initiated at the start and maintained throughout the duration of the construction or grading activity, including any construction or grading for road construction or maintenance.
 - Unpaved areas subject to vehicle traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered.
 - The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 mph unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 mph from emitting dust exceeding Ringelmann 2 or visible emissions from crossing the project boundary line.
 - Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.
 - Prior to any ground disturbance, including grading, excavating, and land clearing, sufficient water must be applied to the area to be disturbed to prevent emitting dust exceeding Ringelmann 2 and to minimize visible emissions from crossing the boundary line.
 - Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt, from being released or tracked offsite.
 - When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures, grading and earthmoving operations shall be suspended. No trucks are allowed to transport excavated material offsite unless the trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments, and loads are either covered with tarps; or wetted and loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than 6 inches from the top and that no point of the load extends above the top of the cargo compartment.
 - Wind-Driven Fugitive Dust Control: A person shall take action(s), such as surface stabilization, establishment of a vegetative cover, or paving, to minimize wind-driven dust from inactive disturbed surface areas.
- ▶ **EDCAQMD Rule 223-2, Asbestos Hazard Mitigation.** Requires that an asbestos dust mitigation plan must be prepared, submitted, approved, and implemented when more than 20 cubic yards of earth will be moved at all sites identified as being in an Asbestos Review Area as shown on the El Dorado County Naturally Occurring Asbestos Review Map maintained by EDCAQMD.
- ▶ **EDCAQMD Rule 224, Cutback and Emulsified Asphalt Paving Materials.** Specifies VOC content limits for cutback asphalt.

Toxic Air Contaminants

At the local level, air pollution control or management districts may adopt and enforce CARB's control measures. All stationary sources with the potential to emit TACs are required to obtain permits from EDCAQMD under Rule 501, General Permit Requirements; Rule 523, New Source Review; and Rule 522, Federal Operating Permit. Permits may be

granted to these operations if they are constructed and operated in accordance with applicable regulations, including new source review standards and air toxics control measures.

Sources that require a permit are analyzed by EDCAQMD (e.g., health risk assessment) based on their potential to emit TACs. If it is determined that the project would emit toxics in excess of EDCAQMD's threshold of significance for TACs (identified below), sources have to implement the BACT for TACs to reduce emissions. If a source cannot reduce the risk below the threshold of significance even after the BACT has been implemented, the air district will deny the permit required by the source.

EDCAQMD is also responsible for implementing and enforcing asbestos-related regulations and programs. This includes implementation of Title 17, Sections 93105 and 93106 of the CCR (Asbestos Airborne Toxic Control Measure: Asbestos-Containing Serpentine) and the County's Naturally Occurring Asbestos and Dust Protection Ordinance. Regulated activities include construction or digging on a site containing naturally occurring asbestos (NOA) in rock or soils and the sale and use of serpentine material or rock containing asbestos materials for surfacing (El Dorado County 2004).

In addition to addressing fugitive dust, EDCAQMD's Rule 223 also addresses NOA emissions during construction activities. The County's Air Pollution Control Officer may provide an exemption from Rule 223-2 if a Professional Geologist has conducted a geologic evaluation of the property and determined that no serpentine or ultramafic rock, or asbestos, is likely to be found in the area to be disturbed. However, according to the Naturally Occurring Asbestos Review Area Map for El Dorado County, provided by EDCAQMD, there is a potential for the northeastern portion of the project site to contain NOA (El Dorado County 2018). Additionally, Appendix D of the 2011 Preliminary Geotechnical Engineering Study for the Dixon Ranch Subdivision includes an assessment of NOA, stating that a portion of the project site is underlain by a mixture of metasedimentary and metavolcanic rock that could release NOA dust during construction (Youngdahl 2011: Appendix D). Therefore, the project would not qualify for an exemption and would thus be required to comply with EDCAQMD Rule 223-2. Rule 223-1, which is intended to limit fugitive dust emissions from construction-related activities, also requires immediate reporting upon discovery of NOA in construction areas. Rule 223-2 is intended to reduce the amount of asbestos particulate matter entrained in the ambient air as a result of any construction or construction-related activities that disturbs or potentially disturbs NOA by requiring actions to prevent, reduce, or mitigate asbestos emissions.

The presence of NOA on the site triggers specific County requirements and additional recommendations as listed in EDCAQMD Rule 223-2. Rule 223-2 regulates grading in asbestos review areas and requires that finished grade surface asbestos concentrations be below 0.25 percent as measured by CARB Test Method (TM) 435, potentially requiring testing and management for asbestos during grading followed by the testing of finished grades for asbestos. All export soil/rock is required to be tested, and special documentation to accompany the export must be completed. Public disclosure is required for properties containing asbestos. Additionally, regarding, grading, excavation, and construction activities, Ordinance 4548, codified as Chapter 8.44 of the El Dorado County Ordinance Code, requires an Asbestos Hazard Dust Mitigation Plan in all areas of the county identified as potentially having asbestiform minerals; the mitigation measures include extensive wetting, covering, and other actions.

Odors

EDCAQMD has determined some common types of facilities that have been known to produce odors: wastewater treatment facilities, chemical manufacturing plants, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations. Because offensive odors rarely cause any physical harm, and federal and state air quality regulations do not contain any requirements for their control, EDCAQMD has no rules or standards related to odor emissions other than their nuisance Rule 205, included above. Any actions related to odors are based on citizen complaints to local governments and EDCAQMD. There are no major odor sources in the vicinity of the project or associated with the proposed project.

El Dorado County General Plan

The Health, Safety, and Noise Element of the El Dorado County General Plan provides countywide goals and policies aimed at improving air quality. Goals and policies in this element parallel those identified in the state and federal plans applicable to El Dorado County. The following objectives and policies are applicable to the project:

- ▶ **Objective 6.3.1: Building and Site Standards.** Adopt and enforce development regulations, including building and site 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]) comply with the Air Quality Management District (AQMD) Rules 223, 223-1 and 223-2 requirements. The Department of Transportation and the AQMD 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.
 - **Policy 6.3.1.2:** The County shall establish a mandatory disclosure program, where potential buyers and sellers of real property in all areas likely to contain NOA (based on mapping developed by the DOC) are provided information regarding the potential presence of asbestos subject to sale. Information shall include potential for exposure from access roads and from disturbance activities (e.g., landscaping).
- ▶ **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 6.7.2.3:** To improve traffic flow, synchronization of signalized intersections shall be encouraged to reduce congestion, conserve energy, and improve air quality.
- ▶ **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 6.7.4.6:** 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 El Dorado County General Plan Public Health, Safety, and Noise Element July 2004 (Amended August 2019) Page 127 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 before periodic updates of the Guide.

El Dorado County Regional Transportation Plan

The Regional Transportation Plan 2020–2040 (2040 RTP) for El Dorado County proactively links land use, air quality, and transportation needs. The plan is intended to identify a vision for sustainable land use planning that accommodates regional housing needs while reducing greenhouse gas emissions. EDCAQMD uses the growth and development patterns in the 2040 RTP when developing plans to meet NAAQS and CAAQS in El Dorado County.

El Dorado County Naturally Occurring Asbestos and Dust Protection Ordinance

The Naturally Occurring Asbestos and Dust Protection Ordinance, as codified in the El Dorado County Code of Ordinances (Chapter 8.44, Asbestos and Dust Protection), includes requirements for grading, excavation, and construction activities in areas known to have asbestos rock formations through the implementation of an asbestos hazard dust mitigation plan to protect public health.

3.2.2 Environmental Setting

CLIMATE, METEOROLOGY, AND TOPOGRAPHY

The project site is located in a portion of western El Dorado County that is part of the Mountain Counties Air Basin (MCAB). The MCAB comprises portions of Placer County and El Dorado County and all of Plumas, Sierra, Nevada, Amador, Calaveras, Tuolumne, and Mariposa Counties. It includes the central and northern Sierra Nevada. Elevations range from several hundred feet in the foothills to more than 10,000 feet above mean sea level along the Sierra crest.

Ambient concentrations of air pollutant emissions are determined by the amount of pollutants emitted and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and the presence of sunlight. Therefore, air quality conditions in the area are determined by such natural factors as climate, meteorology, and topography, in addition to the level of emissions by existing air pollutant sources.

The MCAB generally experiences warm, dry summers and wet winters. During summer, in the western portion of the MCAB where the project site is located, temperatures often exceed 85 degrees Fahrenheit (°F) coupled with clear sky conditions, which is favorable for ozone formation. Local climatology of the project site is best represented by ambient temperature measurements at the Western Regional Climate Center–operated Represa Station in El Dorado County. Maximum temperatures occur during July and reach 90°F on average. Minimum temperatures can be as low as 38°F during winter months (WRCC 2012). Average annual precipitation of approximately 23 inches (0.3 inches of snowfall) occurs primarily from November through March (WRCC 2012). Average annual wind blows from the south (WRCC 2002).

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. A brief description of key criteria air pollutants in the MCAB is provided below. Emission source types and health effects are summarized in Table 3.2-2. El Dorado County's attainment status for the NAAQS and the CAAQS are shown in Table 3.2-3.

Ozone

Ozone is a photochemical oxidant (a substance whose oxygen combines chemically with another substance in the presence of sunlight) and the primary component of smog. Ozone is not directly emitted into the air but is formed through complex chemical reactions between precursor emissions of reactive organic gases (ROG) and NO_x in the presence of sunlight. ROG are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. NO_x are a group of gaseous compounds of nitrogen and oxygen that result from the combustion of fuels.

Emissions of the ozone precursors ROG and NO_x have decreased over the past several years because of more stringent motor vehicle standards and cleaner-burning fuels. Emissions of ROG and NO_x decreased from 2000 to 2010 and are projected to continue decreasing from 2010 to 2035 (CARB 2013).

Nitrogen Dioxide

NO₂ is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO₂ are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form

NO₂. The combined emissions of NO and NO₂ are referred to as NO_x and are reported as equivalent NO₂. Because NO₂ is formed and depleted by reactions associated with photochemical smog (ozone), the NO₂ concentration in a particular geographical area may not be representative of the local sources of NO_x emissions (EPA 2018).

Particulate Matter

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

Table 3.2-2 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute ¹ Health Effects	Chronic ² Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO _x in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO _x results from the combustion of fuels	Increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	Permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	Headache, dizziness, fatigue, nausea, vomiting, death	Permanent heart and brain damage
Nitrogen dioxide (NO ₂)	Combustion devices (e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines)	Coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	Chronic bronchitis, decreased lung function
Sulfur dioxide (SO ₂)	Coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO ₂ exposure to chronic health impacts
Respirable particulate matter (PM ₁₀), fine particulate matter (PM _{2.5})	Fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO ₂ and ROG	Breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	Alterations to the immune system, carcinogenesis
Lead	Metal processing	Reproductive/developmental effects (fetuses and children)	Numerous effects, including neurological, endocrine, and cardiovascular effects

Notes: NO_x = oxides of nitrogen; ROG = reactive organic gases; SO₂ = sulfur dioxide.

¹ "Acute health effects" refers to immediate illnesses caused by short-term exposures to criteria air pollutants at fairly high concentrations. An example of an acute health effect includes fatality resulting from short-term exposure to carbon monoxide levels in excess of 1,200 parts per million.

² "Chronic health effects" refers to cumulative effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations. An example of a chronic health effect includes the development of cancer from prolonged exposure to particulate matter at concentrations above the national ambient air quality standards.

Source: EPA 2023b.

Table 3.2-3 Attainment Status Designations for El Dorado County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (1-hour) ¹	Nonattainment (1-hour) classification = Serious ²
	Nonattainment (8-hour) ³ classification = Severe	Nonattainment (8-hour)
	Nonattainment (8-hour) ⁴ classification = Severe	
Respirable particulate matter (PM ₁₀)	Unclassified (24-hour)	Nonattainment (24-hour)
		Nonattainment (annual)
Fine particulate matter (PM _{2.5})	Attainment ⁵	(No State Standard for 24-Hour)
	Nonattainment (24-hour)	
	Nonattainment (annual)	Unclassified (annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO ₂)	Unclassified/attainment (1-hour)	Attainment (1-hour)
	Unclassified/attainment (annual)	Attainment (annual)
Sulfur dioxide (SO ₂) ⁵	Unclassified/attainment (1-hour)	Attainment (1-hour)
		Attainment (24-hour)
Lead (particulate)	Unclassified/attainment (3-month rolling average)	Attainment (30-day average)
Hydrogen sulfide	No federal standard	Unclassified (1-hour)
Sulfates		Attainment (24-hour)
Visibility-reducing particles		Unclassified (8-hour)
Vinyl chloride		Unclassified (24-hour)

¹ Air quality meets federal 1-hour ozone standard (77 *Federal Register* 64036). EPA revoked this standard, but some associated requirements still apply.

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

³ 1997 standard.

⁴ 2008 standard.

⁵ 2012 standard.

⁶ 2010 standard.

Sources: EPA 2023c; CARB 2022.

TOXIC AIR CONTAMINANTS

According to the *California Almanac of Emissions and Air Quality* (CARB 2013), most of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being diesel PM. Diesel PM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method exists. However, CARB has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM₁₀ database, ambient PM₁₀ monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride,

and perchloroethylene. Overall, except for levels of para-dichlorobenzene and formaldehyde, levels of TACs have decreased since 1990 (CARB 2013).

Naturally Occurring Asbestos

Asbestos is the common name for a group of naturally occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. NOA, which was identified as a TAC by CARB in 1986, is located in many parts of California and is commonly associated with serpentine soils and rocks. Exposure to asbestos increases the risk of developing lung disease. In general, the greater the exposure to asbestos, the greater the chance of developing harmful health effects such as lung cancer, mesothelioma, and asbestosis (a long term, non-cancerous disease of the lungs) (EPA 2024).

An asbestos map of western El Dorado County prepared by the County shows the location of individual parcels and areas in the following four categories that either contain NOA or are considered to be subject to elevated risk of containing NOA (El Dorado County 2018):

- ▶ Found Area of NOA,
- ▶ Quarter Mile Buffer for Found Area of NOA,
- ▶ More Likely to Contain Asbestos, and
- ▶ Quarter Mile Buffer for More Likely to Contain Asbestos or Fault Line.

The northeastern corner of the project site is in both an area more likely to contain asbestos and a quarter-mile buffer for more likely to contain asbestos or fault line (El Dorado County 2018). Appendix D of the 2011 Preliminary Geotechnical Engineering Study for the Dixon Ranch Subdivision includes an assessment of NOA, stating that a portion of the project site is underlain by a mixture of metasedimentary and metavolcanic rock that could release NOA dust during construction (Youngdahl 2011: Appendix D).

ODORS

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

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition occurs only with an alteration in the intensity. EDCAQMD identifies the following uses as common sources of nuisance odors: wastewater treatment plants, chemical manufacturing facilities, sanitary landfills, fiberglass manufacturing facilities, transfer stations, painting/coating operations (e.g., auto body shop), composting facilities, food processing plants, petroleum refineries, rendering plants, asphalt batch plants, and coffee roasters.

EXISTING EMISSIONS SOURCES

CARB's emissions inventory summarizes emissions of criteria air pollutants and ozone precursors in the MCAB for various source categories in 2017 (the year for which the most recent data are available). According to the emissions inventory, areawide sources in the MCAB account for the greatest contribution to the annual average for anthropogenic air pollutant levels of ROG, whereas mobile sources account for most of the NO_x emissions. Areawide sources are the greatest contributors of anthropogenic PM₁₀ and PM_{2.5} in the MCAB. In El Dorado County, mobile sources are the greatest contributor to the annual average for anthropogenic ROG and NO_x emissions. Areawide

sources are the greatest contributor to the annual average for anthropogenic PM₁₀ and PM_{2.5} emissions. Overall, statewide emissions are forecasted to decline by 71 percent between 2000 and 2035 (CARB 2013: 3-8).

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants.

Existing sensitive land uses near the project site include residential neighborhoods consisting of single-family homes. The closest of these receptors are the multiple single-family homes located directly against the project site's western border, as well as multiple single-family homes located approximately 50 feet from the project site's eastern border.

3.2.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Criteria Air Pollutants and Ozone Precursors

Construction (including off-site roadway and infrastructure improvements) and operational emissions of criteria air pollutants and precursors were calculated using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.21 computer program, as recommended by EDCAQMD. Modeling was based on project-specific information (e.g., size, area to be graded, area to be paved) where available, reasonable assumptions based on typical construction activities, and default values in CalEEMod that are based on the project's location and land use type. Operational emissions from all sources were estimated for the year of project operation, anticipated to occur in 2030, which is estimated to be the first full year of operation (i.e., the first full year without construction activities).

It should be noted that, because of model constraints, ROG emissions in the final year of construction (2030) are represented as "worst-case" in that all architectural coating application was modeled as occurring during the final year of construction (i.e., all constructed buildings being painted at the same time). To account for this, ROG emissions from the architectural coating phase were adjusted off-model to be dispersed throughout the building construction phase to more accurately represent the fact that architectural coatings are applied during the construction phase, as buildings are completed, not at the end of the overall construction period. The ROG emissions shown in Table 3.2-4 reflect this adjustment. See Appendix B for further details and calculations. Project design features, such as the incorporation of EDCAQMD's Rule 223-1 dust control measures, were included in the unmitigated emissions model scenario.

Regarding operations, CalEEMod default natural gas and electricity demand were used whereas mobile emissions associated with operation of the project were estimated using vehicle miles traveled (VMT) and trip data from the traffic study and VMT analysis prepared for the project (Kimley-Horn 2023). CO impacts were assessed qualitatively, using the screening criteria set forth by EDCAQMD and results from the project-specific traffic study.

Toxic Air Contaminants

Implementing the project would not result in new operational stationary sources of TACs; thus, the health risk assessment (HRA) was focused on construction-related emissions of diesel PM. This assessment was based on the proximity of TAC-generating activity to off-site sensitive receptors, the number and types of diesel-powered construction equipment being used, and the duration of potential TAC exposure. The primary TAC that would occur from construction and evaluated in this analysis is diesel PM.

Construction-related emissions of diesel PM were obtained from the PM₁₀ exhaust results of the CalEEMod runs. Construction diesel PM would be generated by on-road vehicle traffic (e.g., vendor and hauling trips) and off-road

diesel equipment operation (e.g., construction equipment). A summary discussion of the HRA approach is included below, and additional details are provided in Appendix B.

Modeling Approach

To determine health risk at specific locations (i.e., receptors), first, air dispersion modeling was conducted using site-specific parameters (e.g., terrain, meteorological data), and then risk calculations were conducted. Dispersion modeling was conducted using CARB's approved American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee modeling system (AERMOD) Version 12.0.0, with a unit emission rate of 1 gram per second (g/s) for all modeled sources. This approach is used so that resulting ground-level concentrations can be multiplied by actual emission rates for various scenarios (e.g., unmitigated/mitigated model runs) without running AERMOD multiple times. The air dispersion model included all standard regulatory default options, including the use of rural dispersion parameters and local terrain data.

Meteorological Data

Preprocessed meteorological data from 2014–2018 collected at the Sacramento Executive Airport station was obtained from the Sacramento Metropolitan Air Quality Management District (SMAQMD). The model was set to run all 5 years (i.e., 2014–2018) of available data. The Sacramento Executive Airport station is the station nearest to the project site with preprocessed meteorological data, located along Freeport Boulevard, approximately 27 miles southeast of the project site and the most representative meteorological station for the site. This station was chosen because it has an elevation and surrounding land uses similar to those of the project site. The wind at the Sacramento Executive Airport primarily blows from the south-southwest.

Receptor Grid

A receptor grid was placed around the project site, encompassing receptors within 300 meters of the project site with 25-meter spacing for the first 100 meters and 100-meter spacing after that. Discrete receptors were removed from all locations with no sensitive receptors, such as the project site, roadways, and the middle of pastures. All receptors were given a flagpole receptor height of 1.8 meters in accordance with SMAQMD guidance (SMAQMD 2013).

Construction-Generated Toxic Air Contaminants

For locations on the project site where construction activities would occur, construction emission sources were modeled as an array of adjacent volume sources. Each volume source was assumed to have 98.4-foot (30-meter) sides, an internal lateral dimension of 6.98 meters, and an internal vertical dimension of 1.0 meter; the latter two attributes were calculated from the length of the volume source side based on calculations recommended in SMAQMD's guidance (SMAQMD 2013: 2).

Haul routes were modeled as a line source, also representing a series of volume sources, with a 5.78-meter plume height, an 8.6-meter plume width, and a 3.4-meter release height. These were calculated in AERMOD based on the assumption that trucks traveling on these routes would have an average height of 3.0 meters and travel on one-lane roads that are 5.6 meters (approximately 19 feet) wide. The length of the haul route in AERMOD is approximately 8,711 meters (5.41 miles), extending from the project site, south along Green Valley Road to Silver Springs Parkway to Bass Lake to US 50.

Construction of the project also includes off-site roadway and infrastructure improvements. Similar to the haul route, off-site improvements were modeled as line volumes with a 5.78-meter plume height and a 3.0-meter plume width (the assumed width of the trucks). Line volumes were created for each off-site improvement, with routes ranging from 476 meters for the proposed upsizing of the gravity sewer located near Calais Way to 2,514 meters for the proposed wastewater force main pipeline primarily along Silva Valley Parkway. The modeling also factored the alternative wastewater alignment where the proposed new force main would be extended further south along Silva Valley Parkway where it would connect to a 24-inch gravity flow pipeline south of Harvard Way should adequate capacity not be available at the time of project development (Figure 2-12).

Odors

Impacts related to odors were assessed qualitatively, based on proposed construction activities, equipment types and duration of use, overall construction schedule, and distance to nearby sensitive receptors. The focus of the analysis is construction-related odors because the project does not include any uses that would generate odors different from those associated with typical urban development in the area.

THRESHOLDS OF SIGNIFICANCE

An air quality impact would be significant if implementation of the project would:

- ▶ conflict with or obstruct implementation of the applicable air quality plan;
- ▶ result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;
- ▶ expose sensitive receptors to substantial pollutant concentrations; or
- ▶ result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

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

- ▶ conflict with or obstruct implementation of an applicable air quality plan (i.e., 2023 Ozone Plan) as determined by the following criteria:
 - the project does not require a change in the existing land use designation, such as through a general plan amendment or rezone;
 - the project does not exceed the "project alone" significance criteria;
 - the project Implements applicable 2023 Ozone Plan emission reduction measures; and
 - the project complies with all applicable district rules and regulations;
- ▶ result in construction-generated criteria air pollutant or precursor emissions that exceed the EDCAQMD-recommended thresholds of 82 pounds per day (lb/day) for ROG and NO_x;
- ▶ result in a net increase in long-term operational criteria air pollutant or precursor emissions that exceed the EDCAQMD-recommended thresholds of 82 lb/per day for ROG and NO_x;
- ▶ result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm;
- ▶ expose sensitive receptors to a substantial incremental increase in health risks from exposure to TAC emissions that exceed 10 in one million for carcinogenic risk (i.e., the risk of contracting cancer) and/or a noncarcinogenic hazard index of 1.0 or greater; or
- ▶ create objectionable odors affecting a substantial number of people.

ISSUES NOT DISCUSSED FURTHER

Carbon Monoxide Hotspots

Implementation of the project would introduce new vehicle trips to the project area. Based on the transportation analysis prepared for the project, the project would result in a maximum of approximately 2,842 new trips per day at

any one intersection. This level of trips would contribute CO to the MCAB. Although the EDCAQMD CEQA Guide provides guidance regarding CO impact analyses, the guide uses a process that relies on background concentrations of CO and provides analysis-year factors. The provided factors extend only to 2010 and therefore are considered outdated. In lieu of current guidance related to CO impacts from EDCAQMD, CEQA provides lead agencies the discretion to borrow thresholds from other air districts for use in analyses where needed. Bay Area Air Quality Management District (BAAQMD) offers up-to-date guidance regarding mobile source CO impacts. BAAQMD's CEQA Guide provides preliminary screening criteria to aid lead agencies in assessing whether implementing a project could result in CO emissions that exceed the thresholds of significance. BAAQMD's CEQA guide provides a screening threshold which states that if project-generated traffic that would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour would potentially result in a CO impact and would therefore require further analysis. The project is estimated to generate 2,842 total new daily trips, with 195 trips occurring during the a.m. peak hour and 274 new trips occurring during the p.m. peak hour (Kimley-Horn 2022). Considering that operation of the project would result in a maximum peak-hour trip rate of 274 trips, and the roadways in the vicinity of the project site have a total vehicle volume of approximately 40,500 vehicles per day, the number of vehicles traveling through intersections at any given time would be far fewer than 44,000 vehicles per hour (Kimley-Horn 2022). Thus, a CO hotspot would not result from project implementation. Moreover, CO emissions have historically decreased due to the advent of catalytic converters and progressively more stringent fuel economy standards. Because the project would not meet the applicable screening criteria and the long-term CO attainment designation of the MCAB, CO hotspots have been dismissed from the analysis. This issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Conflict with or Obstruct Implementation of an Applicable Air Quality Plan

The applicable AQAP considered in this analysis is the 2023 Ozone Plan. Growth induced by the project is accounted for in the Sacramento Area Council of Government's (SACOG's) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which informs the growth projections used in the development of the 2023 Ozone Plan. The project would exceed applicable project-level thresholds related to construction NO_x and TAC emissions. The project also would comply with all applicable EDCAQMD rules, including Rule 223-1 and Rule 223-2. However, the project includes a proposed General Plan Amendment, would exceed short-term construction and operational thresholds, and is not consistent with VMT-reduction objectives of the AQAP. This impact would be **significant**.

El Dorado County is designated as nonattainment for ozone and PM_{2.5} for the NAAQS and ozone and PM₁₀ for the CAAQS (see Table 3.2-3, above). The applicable air quality plan is the 2023 Ozone Plan, adopted in October 2023, which outlines how the SFNA, including western El Dorado County, will meet the ozone NAAQS. The 2023 Ozone Plan estimates future emissions in the SFNA and determines strategies necessary for emission reductions through regulatory controls. Emission projections are based on population, vehicle, and land use trends typically developed by the regional air quality management districts and metropolitan planning organizations, including SACOG. As stated above, the EDCAQMD *Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts under the California Environmental Quality Act* (EDCAQMD CEQA Guide) considers projects consistent with the 2023 Ozone Plan if the project satisfies the following criteria:

- ▶ The project does not require a change in the existing land use designation, such as through a general plan amendment or rezoning.
- ▶ The project does not exceed the "project alone" significance criteria.
- ▶ The project implements applicable 2023 Ozone Plan emission reduction measures.
- ▶ The project complies with all applicable district rules and regulations.

Project consistency with each criterion is evaluated below.

Change to Land Use Designation Plan

As described in Section 2 “Project Description,” the project includes amendments to the El Dorado County General Plan land use designations that would change the land use designations of the site that would increase the development potential. Because approving the project would amend the General Plan land use diagram, it would conflict with EDCAQMD’s first criterion for defining consistency with the 2023 Ozone Plan. Although the proposed General Plan amendments would not meet the EDCAQMD’s first analysis criterion, anticipated growth associated with the project is generally accounted for in the 2023 Ozone Plan and would be accounted for in forthcoming attainment plans. The 2023 Ozone Plan was informed by SACOG’s 2020 MTP/SCS. As stated in Section 3.12, “Population, Employment, and Housing,” the project site is included in SACOG’s 2020 MTP/SCS as an Established Community type and has therefore been accounted for in its growth pattern estimation for the region (SACOG 2020). The 2020 MTP/SCS forecasts about 2,330 new housing units in El Dorado Hills and 4,070 new housing units in the Established Community Type in El Dorado County. The project would account for approximately 16 percent of total new housing units in El Dorado Hills by 2040.

Exceedance of “Project Alone” Significance Criteria

The “project alone” criterion refers to the potential for emissions directly related to the construction and operation of a project to exceed established project-level thresholds. As described below, the construction of the project would exceed thresholds related to NO_x and TACs.

Implementation of Applicable Ozone Plan Reduction Measures

The 2023 Ozone Plan prioritizes reductions of NO_x, a precursor of ozone, through measures and policies meant to reduce mobile and area source emissions of the criteria pollutant. Project design would include renewable energy generation systems in the form of rooftop solar panels compliant with the minimum standards of Part 11 of Title 24 of the California Building Code (California Green Building Standards Code). The project also would be required to implement mandatory energy efficiency measures in accordance with Part 6 of Title 24 of the California Building Code (California Energy Code) to reduce energy demand from buildings. These features, which reduce emissions from energy used in buildings, align with the reduction goals of the 2023 Ozone Plan. However, another priority goal of the 2023 Ozone Plan is reducing emissions associated with mobile sources. This is typically achieved through actions such as implementing VMT reduction measures; increasing electric vehicle (EV) use; and increasing access to alternative modes of transportation, such as biking and walking. The project does not feature any design elements intended to reduce operational VMT. Therefore, the project would not be consistent with the 2023 Ozone Plan.

Compliance with Air District Rules and Regulations

As described for Impact 3.2-2, below, the project would incorporate Rule 223-1. However, because the project is in an area known to contain NOA, the submission of an Asbestos Dust Mitigation Plan to the EDCAQMD before the start of any construction activity would be required (see Impact 3.2-4). The project would comply with all other applicable EDCAQMD rules, as described in Section 3.2.1, “Regulatory Setting,” above.

Conclusion

Although the project requires an amendment to the General Plan, anticipated growth associated with the project would not exceed SACOG’s growth projections for the region. Implementing the project would result in construction-related emissions that would exceed EDCAQMD’s project-level thresholds. The project would comply with Rule 223-1; however, an Asbestos Dust Mitigation Plan would be required to be submitted to the EDCAQMD before the start of construction to comply with Rule 223-2. Additionally, the project would not feature VMT reduction measures and thus would not be considered consistent with the 2023 Ozone Plan. This impact would be **significant**.

Mitigation Measures

Implement Mitigation Measure 3.14-2: Implement a Transportation Demand Management Program and Mitigation Measure 3.7-1a: Install CalGreen Tier 2-Compliant On-site Electric Vehicle Charging Infrastructure.

Mitigation Measure 3.2-1a: Apply Tier-4 Emission Standards to All Diesel-Powered Off-Road Equipment

Construction contractors for the project shall use only off-road construction equipment that meets EPA's Tier 4 emission standards, as defined in 40 CFR 1039, and comply with the appropriate test procedures and provisions contained in 40 CFR Parts 1065 and 1068. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Implementation of this measure shall be required in the contract the project applicant establishes with its construction contractors. The project shall demonstrate its plan to fulfill the requirements of this measure in a report or project improvement plan details submitted to the County before the use of any off-road diesel-powered construction equipment on the site.

Mitigation Measure 3.2-1b: Implement Best Available Fugitive Dust Control Measures

In accordance with Section 4.2.3 of the EDCAQMD CEQA Guide, the applicant shall ensure that construction and grading activities minimize short-term impacts on air quality by employing the dust reduction measures of the South Coast Air Quality Management District's (SCAQMD's) Rule 403, identified as mitigation in Section C.6 of the EDCAQMD CEQA Guide. Construction contractors shall implement the following dust control measures:

- ▶ Earth-moving (except construction cutting and filling areas, and mining operations)
 - Control Action 1a. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the District; two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
 - Control Action 1a-1. For any earth-moving that is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
- ▶ Earth-moving – construction fill areas
 - Control Action 1b. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the District; for areas that have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM method 1557 or other equivalent method approved by the District, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content; two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.
- ▶ Earth-moving – construction cut areas and mining operations
 - Control Action 1c. Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining areas unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
- ▶ Disturbed surface areas (except completed grading areas)
 - Control Action 2a/b. Apply dust suppression in a sufficient quantity and frequency to maintain a stabilized surface; any areas that cannot be stabilized, as evidenced by wind-driven dust, must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
- ▶ Disturbed surface areas –completed grading areas
 - Control Action 2c. Apply chemical stabilizers¹ within 5 working days of grading completion; OR
 - Control Action 2d. Take action 3a or 3c specified for inactive disturbed surface areas.

¹ Chemical stabilizers are defined by EDCAQMD as a non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the Environmental Protection Agency, or any applicable law, rule or regulation; and should meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface (El Dorado County 2018).

- ▶ Inactive disturbed surface areas
 - Control Action 3a. Apply water to at least 80 percent of all inactive disturbed surface areas daily when there is evidence of wind-driven fugitive dust, excluding any areas that are inaccessible due to excessive slope or other safety conditions; OR
 - Control Action 3b. Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
 - Control Action 3c. Establish a vegetative ground cover within 21 days after active operations have ceased; ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
 - Control Action 3d. Utilize any combination of control actions 3a, 3b, and 3c such that, in total, they apply to all inactive disturbed surface areas.
- ▶ Unpaved roads
 - Control Action 4a. Water all roads used for any vehicular traffic at least once per every two hours of active operations; OR
 - Control Action 4b. Water all roads used for any vehicular traffic once daily and restrict vehicle speed to 15 mph; OR
 - Control Action 4c. Apply chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
- ▶ Open storage piles
 - Control Action 5a. Apply chemical stabilizers; OR
 - Control Action 5b. Apply water to at least 80 percent of the surface areas of all open storage piles daily when there is evidence of wind-driven fugitive dust; OR
 - Control Action 5c. Install a three-sided enclosure with walls with no more than 50 percent porosity that extend, at a minimum, to the top of the pile.
- ▶ Track-out control
 - Control Action 6a. Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and width of at least 20 feet; OR
 - Control Action 6b. Pave from the point of intersection with the public paved road surface, extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device.

Mitigation Measure 3.2-1c: Implement Asbestos Dust Mitigation Consistent with EDCAQMD Rule 223-1

Consistent with EDCAQMD Rule 223-2 and County Ordinance 4548, if the presence of NOA is confirmed by a professional geologist through a geologic survey, the following asbestos dust control measures shall be implemented by the applicant:

1. The project applicant shall submit an Asbestos Dust Mitigation Plan to the Air Pollution Control Officer before the start of any construction activity that applies to EDCAQMD's Rule 223-1. An updated Asbestos Dust Mitigation Plan must be submitted if the project is significantly modified, a new grading permit is issued, the owner/operator changes or the Air Pollution Control Officer requests that a new plan be submitted.
2. Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Asbestos Dust Mitigation Plan. The project applicant shall provide written notification to the Air

Pollution Control Officer at least 10 days before the commencement of earthmoving activities by email, fax, or mail. The requirement to submit an Asbestos Dust Mitigation Plan shall apply to all such activities conducted for residential and nonresidential (e.g., commercial, industrial, or institutional) purposes or conducted by any governmental entity.

3. An owner/operator may submit one Asbestos Dust Mitigation Plan covering multiple construction stages within the same project, provided the plan includes a description of activities and control measures for all stages of the project. The Asbestos Dust Mitigation Plan shall specify the expected start and final completion date of each project.
4. The Asbestos Dust Mitigation Plan shall describe all dust mitigation measures to be implemented before, during, and after any dust-generating activity, such as the application of soil stabilizers, pre-watering soil before cut-and-fill activities, and covering haul vehicles. Additional measures may be identified by the EDCAQMD or contractor as appropriate.
5. The Asbestos Dust Mitigation Plan shall contain all the information described in Section 223-2.5.B of Rule 223. The Air Pollution Control Officer shall approve, disapprove, or conditionally approve the Asbestos Dust Mitigation Plan within 30 days of plan submittal. The County will not issue a grading permit for any phase of construction until it has received the approved Asbestos Dust Mitigation Plan. Compliance with the approved plan will be documented, at the applicant's expense, through periodic monitoring and annual reporting to the County.
6. An owner/operator shall retain a copy of an approved Asbestos Dust Mitigation Plan at the project site. The approved Asbestos Dust Mitigation Plan shall remain valid until the termination of all dust-generating activities. Failure to comply with the provisions of an approved Asbestos Dust Mitigation Plan is deemed to be a violation of Rule 223. Regardless of whether an approved Asbestos Dust Mitigation Plan is in place, or even when the owner/operator responsible for the plan is complying with an approved Asbestos Dust Mitigation Plan, the owner/operator shall comply also with all requirements of this rule at all times.
7. The name(s), address(s), and phone number(s) of person(s) and owner(s)/operator(s) responsible for the preparation, submittal, and implementation of the Asbestos Dust Mitigation Plan and responsible for the dust-generating operation and the application of dust control measures shall be included in the plan.
8. The Asbestos Dust Mitigation Plan shall include a plot plan that shows the type and location of the project.
9. The Asbestos Dust Mitigation Plan shall identify the total area of land surface to be disturbed and the total area in acres of the entire project site.
10. The Asbestos Dust Mitigation Plan shall identify the expected start and completion dates of dust-generating and soil disturbance activities to be performed on the site.
11. The Asbestos Dust Mitigation Plan shall identify the actual and potential sources of fugitive dust emissions on the site and the location of bulk material handling and storage areas, paved and unpaved roads, entrances and exits where carryout/track-out may occur, and traffic areas.
12. The Asbestos Dust Mitigation Plan shall require the implementation of best management practices (Rule 223-2, Tables 1–4) or other effective measures for construction, bulk material handling, carry- and track-out management, and blasting activities.
13. The Asbestos Dust Mitigation Plan shall require that dust control measures (Rule 223-2, Tables 5 and 6) be implemented during construction.
14. If chemical dust suppressants are to be applied, the following information must be included in the Asbestos Dust Mitigation Plan: product specifications; manufacturer's usage instructions (method, frequency, and intensity of application); type, number, and capacity of application equipment; and information on environmental impacts and approvals or certifications related to the appropriate and safe use for ground application.
15. The Asbestos Dust Mitigation Plan shall identify specific surface treatment(s) and/or control measures to be used to control material carryout, track-out, and sedimentation where unpaved and/or access points join paved roads.

16. The Asbestos Dust Mitigation Plan shall state how often the items specified in Section 223-2.9, and any other items identified in the plan, will be reported to EDCAQMD.
17. The contractor must have clearly displayed signage at multiple points along the project's boundary line notifying that soils in the area may contain NOA, also stating that NOA is a known carcinogen. The signage shall also provide the phone number of the contractor as well as EDCAQMD to allow reporting of excessive fugitive dust.

Significance After Mitigation

With the application of Mitigation Measures 3.2-1a, 3.2-1b, 3.2-1c, 3.7-1a, and 3.14-2, the project would satisfy the requirements of the EDCAQMD CEQA Guide to show consistency with the applicable air quality plan and would be consistent with General Plan Policy 6.3.1.1 regarding NOA and 6.7.7.1 that directs the evaluation of air quality impacts and provision of mitigation measures. Adherence to all required dust suppression measures can result in up to a 75 percent reduction in dust emissions (SMAQMD 2020). Mitigation Measure 3.7-1a requires that EV charging equipment meet the Tier 2 requirements of Part 6 of the Title 24 California Building Code (CalGreen code) in effect at the time of project construction be installed. Mitigation Measure 3.14-2 would require that the applicant develop a Transportation Demand Management (TDM) program for the project and submit the TDM program to El Dorado County for review and approval that would be consistent with the goals of the 2023 Ozone Plan.

Mitigation Measures 3.2-1a and 3.2-1b would reduce construction-related fugitive dust emissions and TAC emissions, respectively, below EDCAMQD's project-level thresholds and therefore would satisfy the "project alone" requirement. Mitigation Measure 3.2-1c would require the preparation of an Asbestos Dust Mitigation Plan before the start of construction and therefore would ensure compliance with all EDCAQMD rules. Therefore, all criteria outlined in the EDCAMQD CEQA Guide to determine consistency with the applicable air quality plan would be met by the project consistent with General Plan Objective 6.3.1 and associated Policy 6.3.1.1 and Objective 6.7.7 and associated Policy 6.7.7.1. This impact would be reduced to **less than significant**.

Impact 3.2-2: Generate Short-Term Construction-Related Emissions of ROG, NO_x, PM₁₀, and PM_{2.5}

Construction of the project (including off-site roadway and infrastructure improvements) would result in emissions of NO_x emissions would exceed daily EDCAQMD thresholds. Further, the EDCAQMD CEQA Guide states that for the impact related to particulate matter emissions to be considered less than significant, projects must incorporate dust mitigation measures in compliance with the dust reduction measures outlined in Rule 403 of SCAQMD. Although the project would include the dust reduction measures of EDCAQMD's Rule 223-1, it would not include the dust mitigation measures of SCAQMD's Rule 403 by design. This impact would be **significant**.

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

Construction would occur over an approximately 60-month period, with construction activities commencing in April 2025 and concluding in March 2030. Dust control measures were included in the model to reflect the required application of EDCAQMD's Rule 223-1.

Table 3.2-4 summarizes the modeled daily ROG, NO_x, and PM emissions during construction activities. Specific model assumptions and inputs can be found in Appendix B.

As shown in Table 3.2-4, construction-related emissions of NO_x would exceed EDCAQMD thresholds; however, ROG emissions would not exceed applicable thresholds. EDCAQMD has not adopted numerical thresholds for PM₁₀ and

PM_{2.5}. Section 4.2.3 of the EDCAQMD CEQA Guide states: “Mass emissions of fugitive dust PM₁₀ need not be quantified, and may be assumed to be not significant, if the project includes mitigation measures that will prevent visible dust beyond the project property lines, in compliance with Rule 403 of the South Coast AQMD. See Section C.6 in Appendix C-1, where the mitigation measures in Rule 403 are set forth.” Therefore, emissions of PM_{2.5} and PM₁₀ are identified in Table 3.2-4 for informational purposes only.

Table 3.2-4 Summary of Daily Unmitigated Emissions of Criteria Air Pollutants and Precursors Associated with Project Construction

Year	ROG (lb/day)	NO _x (lb/day)	PM ₁₀ Exhaust (lb/day)	PM ₁₀ Dust (lb/day)	PM _{2.5} Exhaust (lb/day)	PM _{2.5} Dust (lb/day)
2025	10	87	4	147	3	15
2026	2	14	<1	147	<1	15
2027	11	13	<1	147	<1	15
2028	11	12	<1	147	<1	15
2029	11	12	<1	147	<1	15
2030	11	1	<1	24	<1	2
Maximum	11	87	4	147	3	15
EDCAQMD threshold of significance	82	82	NA	NA	NA	NA
Threshold exceeded?	No	Yes	NA	NA	NA	NA

Notes: NA = not applicable (EDCAQMD has not adopted numerical thresholds for PM₁₀ and PM_{2.5}); ROG = reactive organic gases; lb/day = pounds per day; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM_{2.5} = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less; EDCAQMD = El Dorado County Air Quality Management District.

Maximum emissions include EDCAQMD’s fugitive dust control measures under Rule 223-1.

See Appendix B for detailed input parameters and modeling results.

Source: Modeling performed by Ascent in 2023.

The project would not include adherence to SCAQMD’s Rule 403 by design. Additionally, as shown above, the construction of the project would result in an exceedance of EDCAQMD’s threshold for NO_x. Therefore, this impact would be **significant**.

Mitigation Measures

Implement Mitigation Measures 3.2-1a and 3.2-1b.

Significance after Mitigation

Implementation of Mitigation Measure 3.2-1a, which would require the use of Tier IV engines in construction equipment, would reduce emissions of NO_x to a maximum of 17 lb/day, which is below EDCAQMD’s threshold (see Appendix B for detailed modeling results). Additionally, as stated above, the EDCAQMD CEQA Guide states that projects that include mitigation measures that would prevent visible dust beyond the project property lines, in compliance with Rule 403 of the SCAQMD, would have a less-than-significant impact regarding construction-related PM₁₀ emissions. Implementation of the dust control measures included in Mitigation Measure 3.2-1b would be required as a term of project approval and would therefore satisfy the requirements of the EDCAQMD CEQA Guidelines and be consistent with General Plan Objective 6.7.7 and associated Policy 6.7.7.1. Therefore, this impact would be reduced to **less than significant**.

Impact 3.2-3: Generate Long-Term Operational Emissions of ROG, NO_x, CO, PM₁₀, and PM_{2.5}

Operation of the project would result in emissions of criteria pollutants from mobile, area, and energy sources. Because emissions of ROG and NO_x would not exceed EDCAQMD thresholds, operational emissions associated with the project would be **less than significant**.

Project operations would result in the generation of emissions of criteria air pollutants and precursors. Mobile-source emissions would be generated by residents traveling to and from the project site. As identified in Section 3.14, "Transportation," the project would generate an estimated 2,842 additional daily vehicle trips.

Various emissions also would be generated, including emissions from landscape maintenance equipment, such as mowers and leaf blowers; VOC emissions from the application of architectural coatings; and ROG emissions from the use of various consumer products, such as cleaning chemicals, as well as fireplace features.

Table 3.2-5 summarizes the daily operational emissions of criteria air pollutants and precursors. Emissions were calculated using CalEEMod and are based on the proposed land use type and number of trips (Appendix B).

As shown in Table 3.2-5, emissions of ROG and NO_x would not exceed EDCAQMD thresholds.

EDCAQMD has not adopted numerical thresholds for PM₁₀ or PM_{2.5} emissions. However, the EDCAQMD CEQA states that "land development projects primarily associated with indirect emissions from gasoline-powered vehicles, PM₁₀ may be assumed to be insignificant...(as) the same measures that limit vehicular ROG and NO_x emissions to de minimis levels for such projects will assure that PM₁₀ emissions are de minimis as well" (EDCAQMD 2002). EDCAQMD does not provide guidance for operational PM_{2.5} emissions; however, the operation of the project would not result in diesel truck trips or the use of stationary sources, such as generators, the primary sources of concern regarding PM_{2.5} emissions. Therefore, as shown in Table 3.2-5 below, operation of the project would generate a negligible amount (<1lb/day) of PM_{2.5} during operation.

Table 3.2-5 Summary of Daily Operational Emissions of Criteria Air Pollutants and Precursors at Full Buildout (2030) (Unmitigated)

Emissions Source	ROG (lb/day)	NO _x (lb/day)	PM ₁₀ Exhaust (lb/day)	PM ₁₀ Dust (lb/day)	PM _{2.5} Exhaust (lb/day)	PM _{2.5} Dust (lb/day)
Mobile	13	8	<1	145	<1	16
Area	25	4	<1	0	<1	0
Energy	<1	2	<1	0	<1	0
Total	38	24	<1	145	<1	16
EDCAQMD threshold of significance	82	82	N/A	N/A	N/A	N/A
Threshold exceeded?	No	No	N/A	N/A	N/A	N/A

Notes: NA = not applicable (EDCAQMD has not adopted numerical thresholds for PM₁₀ and PM_{2.5}); ROG = reactive organic gases; lb/day = pounds per day; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; PM_{2.5} = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less; EDCAQMD = El Dorado County Air Quality Management District.

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

Source: Modeling performed by Ascent in 2023.

Because the project would not result in emissions would exceed EDCAQMD thresholds, the project's operational emissions would not conflict with air quality planning efforts in the region and may result in a cumulatively considerable net increase in ozone, for which the region has been designated as nonattainment for the NAAQS and CAAQS. Because the NAAQS and CAAQS were established to be protective of public health, adverse health impacts to receptors are not likely to occur. For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.2-4: Expose Sensitive Receptors to Substantial Pollutant Concentrations (TACs and NOA)

Based on the HRA prepared for the project, construction would produce substantial diesel PM such that EDCAQMD's threshold for TAC cancer risk exposure of 10 in one million would be exceeded. Using this numerical threshold, the project would generate substantial emissions of TACs, causing an adverse health impact from TAC exposure. The project also would be located in an area known to contain NOA that could create public health hazards from NOA dust generated during construction. Therefore, this impact would be **significant**.

EDCAQMD has developed a quantitative threshold of significance for carcinogenic risk exposure (i.e., 10 in one million) in consideration of dosage, risk exposure, background risk levels, and guidance established by AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act. Construction-related activities would result in temporary, short-term project-generated emissions of diesel PM from the exhaust of off-road heavy-duty diesel equipment used for site preparation (e.g., clearing, grading), paving, application of architectural coatings, and other miscellaneous activities. The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Therefore, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to guidance from the California Office of Environmental Health Hazard Assessment's *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, a 30-year exposure duration is used for estimating cancer risk at residential land uses (OEHHA 2015). Construction activity is anticipated to take place over a 6-year timeframe for the project.

The TAC that is the focus of this analysis is diesel PM because it is known that diesel PM would be emitted during project construction. Construction-related activities that would result in temporary, intermittent emissions of diesel PM from the exhaust of off-road heavy-duty diesel equipment include site preparation (e.g., clearing, grading), paving, application of architectural coatings, on-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment, and other miscellaneous activities. Particulate exhaust emissions from diesel PM were identified as a TAC by CARB in 1998. A construction HRA was prepared to evaluate potential TAC exposure from project construction (Appendix B). Table 3.2-6 summarizes the findings of the HRA.

Table 3.2-6 Maximum Cancer Risk under an Unmitigated Project Scenario

Receptor	Unmitigated Scenario Cancer Risk (Chances in One Million)
MEIR (on-site)	27.0
SMAQMD significance threshold	10.0
Threshold exceeded?	Yes

Notes: MEIR = maximally exposed individual resident; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Source: Modeling performed by Ascent in 2023.

Project construction would result in the emission of diesel PM and PM₁₀ exhaust from on-site equipment use and vehicular travel (worker commute, vendor trips, haul trips). Based on CalEEMod model results, air dispersion modeling, and risk calculations discussed above, project-generated diesel PM emissions would result in an increased cancer risk of 27.0 chances in one million at the maximally exposed individual resident, as shown in Table 3.2-6, and a noncancer chronic risk hazard index of 3.0×10^{-02} . Considering EDCAQMD threshold (project level) of significance of 10 chances in one million for cancer risk and a noncancer health index threshold of less than 1.0, implementing the project would result in the exposure of nearby residential receptors to TAC-related health risks that exceed thresholds of significance for cancer risk or chronic risk for the unmitigated scenario.

Alternative Wastewater Alignment

A scenario with the alternative wastewater alignment where the proposed new force main would be extended further south along Silva Valley Parkway where it would connect to a 24-inch gravity flow pipeline south of Harvard Way was also analyzed. Table 3.2-7 summarizes the findings of the HRA with the proposed alternative.

Project construction (including the alternative pipeline) would result in the emission of diesel PM and PM₁₀ exhaust from on-site equipment use and vehicular travel (worker commute, vendor trips, haul trips). Based on CalEEMod model results, air dispersion modeling, and risk calculations discussed above, project-generated diesel PM emissions would result in an increased cancer risk of 27.0 chances in one million at the maximally exposed individual resident, as shown in Table 3.2-7, and a noncancer chronic risk hazard index of 3.0×10^{-02} . Considering EDCAQMD threshold (project level) of significance of 10 chances in one million for cancer risk and a noncancer health index threshold of less than 1.0, implementing the project would result in the exposure of nearby residential receptors to TAC-related health risks that exceed thresholds of significance for cancer risk or chronic risk for the unmitigated scenario.

Table 3.2-7 Maximum Cancer Risk under an Unmitigated Project Scenario with Alternative Wastewater Alignment

Receptor	Unmitigated Scenario Cancer Risk (Chances in One Million)
MEIR (on-site)	27.0
SMAQMD significance threshold	10.0
Threshold exceeded?	Yes

Notes: MEIR = maximally exposed individual resident; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Source: Modeling performed by Ascent in 2024.

The alternative pipeline would not increase cancer risk at the MEIR or increase the noncancer chronic risk hazard of project construction.

Natural Occurring Asbestos

Appendix D of the 2011 Preliminary Geotechnical Engineering Study for the Dixon Ranch Subdivision includes an assessment of NOA, stating that a portion of the project site is underlain by a mixture of metasedimentary and metavolcanic rock that could release NOA dust during construction (Youngdahl 2011: Appendix D). As stated above, in addition to addressing fugitive dust, EDCAQMD's Rule 223 addresses NOA emissions during construction activities. Therefore, the project would be required to comply with EDCAQMD Rule 223-2. Rule 223-1, which is intended to limit fugitive dust emissions from construction-related activities and requires immediate reporting upon discovery of NOA in construction areas, is included in the project's design. Rule 223-2 is intended to reduce the amount of asbestos particulate matter entrained in the ambient air as a result of any construction or construction-related activities that disturb or potentially disturb NOA by requiring actions to prevent, reduce, or mitigate asbestos emissions. Because NOA is present on the project site, the project applicant would be required to submit for approval an Asbestos Dust Mitigation Plan before the start of construction activities in accordance with Rule 223-2 and to the satisfaction of the EDCAQMD Air Pollution Control Officer.

Summary

As discussed above, project-generated construction TAC emissions would exceed established thresholds of significance (i.e., 10 chances in one million for cancer risk), and because NOA is present at the project site, the potential exists that NOA would be unearthed during construction activities. This impact would be **significant**.

Mitigation Measures

Implement Mitigation Measures 3.2-1a and 3.2-1c.

Significance after Mitigation

Implementation of Mitigation Measure 3.2-1a would reduce the project's emissions of diesel PM by requiring the use of Tier 4 engines. Table 3.2-8 summarizes the project's emissions following the implementation of Mitigation Measure 3.2-1a.

Table 3.2-8 Maximum Cancer Risk under a Mitigated Project Scenario

Receptor	Mitigated Scenario Cancer Risk (Chances in One Million)
MEIR	3.5
SMAQMD significance threshold	10.0
Threshold exceeded?	No

Notes: MEIR = maximally exposed individual resident; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Source: Modeling performed by Ascent in 2023.

Alternative Wastewater Alignment

Table 3.2-9 summarizes the project's emissions following the implementation of Mitigation Measure 3.2-1a for the alternative.

Table 3.2-9 Maximum Cancer Risk under a Mitigated Project Scenario with Alternative Wastewater Alignment

Receptor	Mitigated Scenario Cancer Risk (Chances in One Million)
MEIR	3.5
SMAQMD significance threshold	10.0
Threshold exceeded?	No

Notes: MEIR = maximally exposed individual resident; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Source: Modeling performed by Ascent in 2024.

As shown in Tables 3.2-8 and 3.2-9, implementation of Mitigation Measure 3.2-1a would reduce the project's incremental cancer risk to 3.5 in one million for both scenarios, which is below SMAQMD's recommended threshold of 10 in one million. Additionally, Mitigation Measure 3.2-1c would require the applicant to submit an Asbestos Dust Mitigation Plan in accordance with Rule 223-2 and to the satisfaction of the EDCAQMD Air Pollution Control Officer. Implementation of these mitigation measures would be consistent with General Plan Objective 6.3.1 and associated Policy 6.3.1.1 and Objective 6.7.7 and associated Policy 6.7.7.1. Therefore, this impact would be reduced to **less than significant**.

Impact 3.2-5: Generate Other Emissions (Such as Those Leading to Odors) Adversely Affecting a Substantial Number of People

Odors resulting from construction-generated diesel exhaust would be temporary and would dissipate quickly because of the highly dispersive properties of diesel PM. Operation of the project would not result in the generation of nuisance odors because residential land uses are not associated with the generation of odors. This impact would be **less than significant**.

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the affected receptors. Although offensive odors rarely cause any physical harm, they can still be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Impacts related to odors resulting from the project are discussed below.

Construction

The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines, as well as emissions associated with paving and the application of architectural coatings, may be considered offensive to some individuals. The generation of these odor emissions would vary greatly on a day-to-day basis depending on the type of construction activity. Application of architectural coatings would also be a source of offensive odors from VOCs. However, because the application of architectural coatings would be required to comply with EDCAQMD Rule 205, Nuisance, potential construction odors would be minimized. Minor odors from the use of heavy-duty diesel

equipment would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. Given the temporary nature of construction activities and the dispersion properties of diesel PM, implementing the project is not anticipated to result in an odor-related impact during the construction activities associated with increased residential capacity allowed under the proposed rezone.

Long-Term Operation

As stated above, EDCAQMD identifies land uses such as wastewater treatment plants, cannabis cultivation operations, and waste handling facilities as typically being associated with the generation of nuisance odors. Implementing the project would result in the implementation of additional housing land uses, which do not typically generate operational odors. Therefore, the project would not result in long-term operational odor impacts.

Summary

Construction-related odors would occur intermittently, disperse quickly, and cease upon the completion of the construction phase. Meanwhile, operational odors are not typically associated with residential land uses such as those proposed under the project. Therefore, implementing the project would result in a **less-than-significant** impact related to the exposure of sensitive receptors to odors.

Mitigation Measures

No mitigation is required for this impact.

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3.3 ARCHAEOLOGICAL AND HISTORICAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the project on known and unknown cultural resources. They include prehistoric (e.g., precontact) resources and historic-period (historic-era) resources. Refer to Section 3.16 for an evaluation of potential impacts to "Tribal Cultural Resources."

Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include prehistoric resources and historic-period resources. Archaeological resources are locations where human activity has measurably altered the earth or left deposits of precontact or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). Historical (or built-environment) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts), or landscapes. A cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

Comments received on the Notice of Preparation (NOP) regarding archaeological and historical cultural resources included concerns regarding historical sites lost as a result of the project. These comments are addressed where appropriate throughout this section. The NOP and comments submitted in response to it are included in Appendix A.

3.3.1 Regulatory Setting

FEDERAL

National Register of Historic Places

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

The formal criteria (36 Code of Federal Regulations [CFR] 60.4) for determining NRHP eligibility are as follows:

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

For a property to retain and convey historic integrity, it must possess most of the seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Location is the place where the historic property was constructed or the place where a historic event occurred. Integrity of location refers to whether the property has been moved since its construction. Design is the combination of elements that create the form, plan, space, structure, and style of a property. Setting is the physical environment of a historic property that illustrates the character of the place. Materials are the physical elements that were combined or deposited during a particular period and in a

particular pattern or configuration to form a historic property. Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. Feeling is a property's expression of the aesthetic or historic sense of a particular period. This intangible quality is evoked by physical features that reflect a sense of a past time and place. Association is the direct link between the important historic event or person and a historic property. Continuation of historic use and occupation help maintain integrity of association.

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

The National Register Bulletin series was developed to assist evaluators in the application of NRHP criteria. For example, National Register Bulletin #36 provides guidance in the evaluation of archaeological site significance. If a property cannot be placed within a particular theme or time period, and thereby lacks "focus," it will be unlikely to possess characteristics that would make it eligible for listing in the NRHP. Evaluation standards for linear features (such as roads, trails, fence lines, railroads, ditches, and flumes) are considered in terms of four related criteria that account for specific elements that define engineering and construction methods of linear features: (1) size and length, (2) presence of distinctive engineering features and associated properties, (3) structural integrity, and (4) setting. The highest probability for NRHP eligibility exists in the intact, longer segments, where multiple criteria coincide.

STATE

California Register of Historical Resources

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

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

The CRHR uses four evaluation criteria:

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

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

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on "historical resources," and "unique archaeological resources." Pursuant to Public Resources Code (PRC) Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect

on the environment.” Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources.

Historical Resources

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

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

Unique Archaeological Resources

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

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

Treatment options under CEQA Section 21083.2(b) to mitigate impacts to “unique archaeological resources” prioritize activities that preserve such resources in place in an undisturbed state.

CEQA Section 21083.2

Treatment options under CEQA Section 21083.2(b) to mitigate impacts on archaeological resources include activities that preserve such resources in place in an undisturbed state. CEQA Section 21083.2 states:

- (a) As part of the determination made pursuant to Section 21080.1, the lead agency shall determine whether the project may have a significant effect on archaeological resources. If the lead agency determines that the project may have a significant effect on unique archaeological resources, the environmental impact report shall address the issue of those resources. An environmental impact report, if otherwise necessary, shall not address the issue of nonunique archaeological resources. A negative declaration shall be issued with respect to a project if, but for the issue of nonunique archaeological resources, the negative declaration would be otherwise issued.
- (b) If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in

an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:

- (1) Planning construction to avoid archaeological sites.
 - (2) Deeding archaeological sites into permanent conservation easements.
 - (3) Capping or covering archaeological sites with a layer of soil before building on the sites.
 - (4) Planning parks, greenspace, or other open space to incorporate archaeological sites.
- (c) To the extent that unique archaeological resources are not preserved in place or not left in an undisturbed state, mitigation measures shall be required as provided in this subdivision.
- (d) Excavation as mitigation shall be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project.
- (e) In no event shall the amount paid by a project applicant for mitigation measures required pursuant to subdivision (c) exceed the following amounts:
- (1) An amount equal to one-half of 1 percent of the projected cost of the project for mitigation measures undertaken within the site boundaries of a commercial or industrial project.
 - (2) An amount equal to three-fourths of 1 percent of the projected cost of the project for mitigation measures undertaken within the site boundaries of a housing project consisting of a single unit.
 - (3) If a housing project consists of more than a single unit, an amount equal to three-fourths of 1 percent of the projected cost of the project for mitigation measures undertaken within the site boundaries of the project for the first unit plus the sum of the following:
 - (A) Two hundred dollars (\$200) per unit for any of the next 99 units.
 - (B) One hundred fifty dollars (\$150) per unit for any of the next 400 units.
 - (C) One hundred dollars (\$100) per unit in excess of 500 units.
- (f) Unless special or unusual circumstances warrant an exception, the field excavation phase of an approved mitigation plan shall be completed within 90 days after final approval necessary to implement the physical development of the project or, if a phased project, in connection with the phased portion to which the specific mitigation measures are applicable. However, the project applicant may extend that period if he or she so elects. Nothing in this section shall nullify protections for Indian cemeteries under any other provision of law.

Health and Safety Code Section 7050.5

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

Public Resources Code Section 5097

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

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

LOCAL

El Dorado County General Plan

The following cultural resources–related objectives and policies from the El Dorado County General Plan are relevant to the project:

- ▶ **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:
 - 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.
 - A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.
 - Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.
 - A definition of cultural resources that are significant to the County. This definition shall conform to (but not necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) and Society of Vertebrate Paleontology.
 - Formulation of project review guidelines for all development projects.
 - 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 7.5.1.6:** 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.

3.3.2 Environmental Setting

REGIONAL PRECONTACT HISTORY

The precontact history of the lower foothills in the vicinity of El Dorado Hills has undergone a variety of archaeological studies, although intensive excavations are rare. Cumulatively, all the studies in El Dorado and Placer Counties, covering the foothill floor (700 feet) to the lower edge of the pine belt (roughly 3,500 feet), provide useful data toward addressing the precontact history of the region (HRA 2021: 7).

In addition, much of the analysis of precontact sites in the vicinity also relies on inferences drawn from data collected in other regions of the Sierra Nevada, the Central Valley, and the Great Basin. Archaeologists have relied upon scientific data gathered from several major precontact sites near Lake Tahoe, where a reasonably complete chronology has been established that dates back 8,000 years. Occupation of the High Sierra is thought to date to at least 8,000 years before present (BP). This early period is represented by Parman-type projectile points found along the Tahoe Reach of the Truckee River. Numerous surface finds of similar point types have been recovered on the Eldorado, Tahoe, and Lassen National Forests. This period is known as the Tahoe Reach Phase (HRA 2021: 7).

Following the Tahoe Reach phase was a second phase in the High Sierra, known as the Spooner phase. It dates from 4000 to 6000 BP and is characterized by Pinto- and Humboldt-type points.

The next phase in the High Sierra chronology, which dates from 6000 BP to 1500 BP, is the Martis phase, named after the Martis Valley. This period is characterized by the widespread use of basalt for stone tools; large, roughly shaped projectile points of the Martis-type; weights; manos; millingstones; bowl mortars; cylindrical pestles; and many flake scrapers. Martis is considered a series of phases that may be of Great Basin origin but that is distributed from the western Great Basin to the Central Valley (HRA 2021: 8).

Following the Martis phase is the Kings Beach phase. The Kings Beach Phase 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 phase dates from 1500 to 800 BP and is considered ancestral to the ethnographic Washo (HRA 2021: 8).

ETHNOHISTORY

The project site lies squarely in the territory occupied in aboriginal and historic times by the Nisenan, or Southern Maidu. Their territory extended to the Bear River and south of the South or Middle Fork of the Cosumnes River. Nisenan, a Penutian language, can be divided into three main dialects, Northern Hill Nisenan, Southern Hill Nisenan, and Valley Nisenan (HRA 2021: 9).

The Nisenan had names for every mountain, hill, flat, valley, canyon, spring, creek, and river. Villages normally derived their name from prominent features of the immediate landscape, from important local vegetation, and sometimes from a mythical or local celebrity. When the inhabitants of a village moved to another location, the new settlement assumed a name different from that of the old settlement (HRA 2021: 9).

The chief political unit for the Nisenan was the tribelet, which consisted of a principal, permanent village surrounded by several secondary villages and seasonal camps. The population of the tribelet varied from 15–25 people to more than 500. Its headman served as advisor to the people of the tribelet. The position was usually hereditary. The permanent village was usually found in the Foothill Belt or the lower Yellow Pine Belt, at an elevation of 1,000–4,000 feet. Winter village locations are typically found on knolls or in valleys with good southern exposure and adjacent to springs or other permanent sources of water. Typical 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 (HRA 2021: 9).

In the area of the western slope of the Sierra, the territory of the foothill Nisenan crosses many plant communities, making available to them a wide variety of plant resources. The main food source for the Nisenan was acorns, although

a wide variety of other resources were also used. Tan bark oak (*Lithocarpus densiflora*) and black oak (*Quercus kelloggii*) were preferred, with golden oak (*Quercus chrysolepis*), interior live oak (*Quercus wislizenii*), and scrub oak (*Quercus dumosa*) considered secondary food sources. Extended families or entire villages would gather acorns. Trespassing into an owned gathering area was discouraged. Acorns were cracked, shelled, and ground into flour in a mortar. They were then leached in sand and cooked in baskets using heated stones. 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, were available on the project site (HRA 2021: 9).

HISTORIC-ERA SETTING

Regional History

The regional history is directly linked to the Gold Rush of the 1850s, the economic and agricultural development of El Dorado County, and commerce and trade in the historic communities associated with Green Valley. In January 1848, gold was discovered in Coloma. One year later, thousands of would-be gold seekers arrived in the "diggings." Many passed through the area and eventually settled in the townsites of Clarksville, Shingle Springs, Live Oak, Green Valley, and Coloma (HRA 2021: 9).

Both the Sacramento-Coloma Road and the Sacramento and Placerville Wagon Road developed from a circuitous trail used by emigrants and miners between 1848 and 1850. With the emigration of 1849 and 1850, the route was improved to accommodate wagons. In later years, 1860–1861, the wagon road is believed to have been the route selected by the Pony Express riders, although conflicting evidence also suggests this route followed the alignment of present-day Green Valley Road to Folsom (HRA 2021: 9).

Argonauts coming east to the gold region from San Francisco and Sacramento would find the Coloma Road extremely significant because it was the primary route from west to east to the gold diggings in El Dorado County in 1848–1849. It is important to point out that in 1848, the primary route to the gold mines from Sacramento was along the Coloma Road. It was not until 1849–1850 that Placerville, or Dry Diggings as it was known then, became an important mining camp (HRA 2021: 9).

It is believed that it was between 1850 and 1854 and again between 1860 and 1870 that the vast majority of roads and houses were built along the Coloma Road between Sacramento, Coloma, and Placerville, in direct competition with the White Rock or Sacramento and Placerville Wagon Road to the south. The competition for business was keen along both roads as traders and store owners erected two-story edifices in the hope of attracting most of the overland and local traffic en route to the mines. The Green Valley House was among the first of the pioneer waystations or hotels to be built between Sacramento and the mine camps to the east (HRA 2021: 9).

Project Site History

Of particular importance to the project site was the gold mining surrounding Salmon Falls, which was once located about 4–5 miles to the northwest. The mining community of Salmon Falls was located on the South Fork of the American River, a few miles from the junction of the Middle Fork, and is now partly under Folsom Lake. Noted on Gibbes's 1851 map, Salmon Falls was one of the earliest successful gold camps, likely discovered before July 1848 by Mormons from Sutter's grist mill. Rich diggings were found around January 1851, the population soared to 3,000, and a post office was established on October 7, 1851 (HRA 2021: 13).

An 1866 General Land Office Survey Plat Map does not depict any improvements on the project site. To understand historic land ownership patterns on and near the project site, three principal maps were examined: official maps of El Dorado County from 1895, 1908, and 1925. These maps were developed by a cartographer who used tax assessment data to verify land ownership. In 1895, most of the south half of Section 24 was owned by Robert Ricker. To the north in Section 24, approximately 80 acres were owned by J. Simpson. His property continued to the north into Section 13. To the east of the property owned by Simpson and Ricker was a 160-acre piece of land in Section 24 owned by George F. Zentgraf. The primary home of the Zentgraf family was located to the east along Deer Valley Road. By 1925, the property ownership remained largely the same, with the exception that Zentgraf had sold his landholdings to Louis Klump. By the latter part of the 20th century, most of the study area parcels had been consolidated into one

landholding owned by the Dixon family. The Dixon family played a significant role in the early history of El Dorado County in the Live Oak and Salmon Falls districts, although other individuals actually developed the parcels contained on the project site during the 19th century and the first half of the 20th century, before the Dixons acquired the ranch. In recent years, Dixon Ranch Partners, which acquired the bulk of the project site, sold its holdings to the current owner, Green Valley Roads Benefits, LLC (HRA 2021: 13).

RECORDS SEARCHES, SURVEYS, AND CONSULTATION

On October 18, 2021, a records search of the project site and the area within 0.25 mile of the site was conducted at the North Central Information Center, at California State University, Sacramento. In addition, on December 19, 2023, an updated records search was conducted to address the potential off-site improvement areas and minor adjustments to the project boundaries.

The results of the 2021 records search revealed that five previously recorded resources were identified on the project site: three historic-era archaeological sites (P-9-1140/CA-ELD-3016/H1-H3), one historic-era linear feature (P-9-1580 CA-ELD-1193/H), and one multicomponent (precontact and historic-era) archaeological site (P-9-5445). No cultural resources were identified within the 0.25-mile radius. Seven previous cultural resources investigations have been conducted on the project site, and eight previous investigations have been conducted outside the project site but within the 0.25-mile buffer. The results of the 2023 records search revealed that no resources in addition to those previously discussed were identified (HRA 2021, 2024).

A pedestrian survey of the project site was conducted on October 19 and 20, 2021 (HRA 2021). The previously recorded cultural resources were relocated and evaluated for the current project. No new cultural resources were identified as part of the investigation for the current project. Similarly, on January 2, 2024, a pedestrian survey was conducted for the expanded project site and the potential off-site improvement areas. No resources were identified as a result of the 2024 pedestrian survey (HRA 2024).

NRHP and CRHR criteria were used to evaluate the significance of the historic features and archaeological sites. The NRHP criteria for eligibility are codified in 36 CFR Part 60 and explained in guidelines published by the Keeper of the NRHP. The NRHP and CRHR are discussed in more detail above in Section 3.3.1, "Regulatory Setting." Eligibility for listing on the NRHP and the CRHR rests on twin factors of significance and integrity. A resource must have both significance and integrity to be considered eligible. Loss of integrity, if sufficiently great, will become more important than the historical significance a resource may possess and render it ineligible. Likewise, a resource can have complete integrity, but if it lacks significance, it must also be considered ineligible.

Archaeological Resources

P-9-1140/CA-ELD-3016/H1

This historic-era archaeological site consists of the former Dixon/Klump Ranch buildings. The property was likely developed in the late 1930s or 1940s and used through the 1990s, until its more recent abandonment. The buildings have extremely deteriorated condition and are at present uninhabitable. The property is composed of a series of buildings and structures cobbled together in circa 1940 from older buildings that lack integrity and association with significant events or people in the history of El Dorado County, have no scientific research value, and, consequently, do not appear to be eligible under CRHR Criteria 1, 2, 3, and 4, or NRHP Criteria A, B, C, and D.

P-9-1140/CA-ELD-3016/H2

This historic-era archaeological site consists of a fieldstone reservoir or spring box located approximately 200 meters southeast of the ranch buildings and developed as a stone and board reservoir for livestock. It was likely built or at least improved in the 1940s, when Klump or the Dixons were grazing livestock. The feature has been rebuilt and is partially collapsed. As a whole, it lacks integrity and does not appear to be associated with significant events or people in the history of El Dorado County, nor does it have scientific research value. Consequently, it does not appear to be eligible under CRHR Criteria 1, 2, 3, and 4, or NRHP Criteria A, B, C, and D.

P-9-1140/CA-ELD-3016/H3

This historic-era archaeological site consists of three linear dry-laid rock walls (Loci A, B, and C) that follow portions of the southern and western boundary of the project site, as well as a largely collapsed wall that runs perpendicular (east to west) through the southern end of the site. Loci A and B represent the longest and most intact fieldstone walls on the project site, and although they do not appear eligible for the NRHP under any of the criteria, they visually represent an important vernacular landscape feature in western El Dorado County over the past 50 years, in large part because many of the dry-laid rock walls in the county have been destroyed by residential development. In applying CRHR Criteria 1–4, Loci A and B retain adequate length and integrity in that they appear to be eligible under Criterion 1, representing an important part of the pioneer settlement and ranching in western El Dorado County. Locus C lacks integrity because most of the wall has been lost. Only a few small segments remain; consequently, it is not a significant resource under the CRHR criteria. Locus B is located in open space along the western border of the project site in currently proposed open space area, while Locus A is located on the edge of a few proposed residential properties along the southern border of the project site.

P-9-1580/CA-ELD-1193/H

This historic-era linear resource represents an abandoned portion of Green Valley Road (located on the eastern portion of the project site), often identified as the Old Coloma Road. The approximately 2,250-foot-long segment of the abandoned roadway includes dirt, gravel, and asphalt/macadam surface, with no observable signs of the much earlier “Old Coloma Road” that dates to the 1850s. In essence, the segment being evaluated lacks integrity because it relates to the pre-automobile period (circa 1850–1910) and is not associated with significant events in the history of El Dorado County, such as wagon, stage, or emigrant travel in the region. Consequently, the segment does not appear to be eligible under CRHR Criteria 1–4 or NRHP Criteria A–D.

P-9-5445

This multicomponent archaeological site includes a partial fieldstone dry-laid corral or holding area for livestock, and a rock outcrop. The dry-laid corral is characterized by two dry-laid fieldstone walls that parallel one another approximately 25 meters apart that were once connected on opposite sides and likely used to contain sheep. The two partially standing stone walls measure 30 meters and 25 meters, respectively. Portions of the walls appear to have been mechanically graded and piled in the center between each wall, jeopardizing the integrity of the feature. Approximately 35 meters northwest of the northernmost wall is a rock outcrop containing two partially developed shallow cups. No artifactual materials, such as groundstone, flakes, or fire-fractured rock, were identified on the surface associated with the rock outcrop. No artifactual material was found associated with the partial corral or the rock outcrop. In applying CRHR Criteria 1–4 and NRHP Criteria A–D, the partial fieldstone corral has diminished integrity and does not appear to be a significant resource.

The rock outcrop containing the two shallow milling cups was not evaluated for the NRHP or CRHR because the project, as currently designed, does not intend to develop the area where this feature is located, and it will be left as open space. However, it was recommended that the rock outcrop be treated as a resource under CEQA.

3.3.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The impact analysis for archaeological and historical resources is based on the findings and recommendations of the *Cultural Resources Study of the Generations at Green Valley Project, Assessor's Parcel Numbers 115-080-004, 126-020-001, 126-020-001, 126-020-001, 126-020-001, and 126-150-023, El Dorado Hills, El Dorado County, California 95762* (HRA 2021). And subsequently informed by the *Updated Cultural Resources Study of the Generations at Green Valley (Formerly Dixon Ranch) Off-Site Improvements Project, El Dorado County, California* (HRA 2024). The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to cultural resources.

CEQA Section 21083.2(g) defines a “unique archaeological resource” as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high

probability that it meets one or more of the following CRHR-related criteria: (1) that it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; (2) that it as a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) that it is directly associated with a scientifically recognized important prehistoric or historic event or person. An impact on a resource that is neither a unique archaeological resource nor a historical resource is not a significant environmental impact under CEQA (State CEQA Guidelines Section 15064.5[c][4]). If the sentence is retained, suggest it stating: If an archaeological resource qualifies as a resource under CRHR criteria, the resource is also evaluated as whether it is a unique archaeological resource for the purposes of CEQA.

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

THRESHOLDS OF SIGNIFICANCE

An impact on cultural resources would be significant if implementation of the project would:

- ▶ cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- ▶ cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines; or
- ▶ disturb any human remains, including those interred outside of formal cemeteries.

ISSUES NOT DISCUSSED FURTHER

No built environment resources or structures were identified on the project site or within the off-site improvement corridors, through either the records search or the pedestrian survey. Therefore, project construction and operation would have no impact on historical resources. This issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources

Locus A and Locus B of historic-era archaeological site P-9-1140/CA-ELD-3016/H3 were recommended eligible for the CRHR under Criterion 1. Similarly, it was recommended that the precontact portion of P-9-5445 be treated as a resource under CEQA. Project-related ground-disturbing activities could result in damage to these and other yet-undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. This impact would be **potentially significant**.

As described in the environmental setting, five archaeological resources were identified by the records search and were relocated as part of the 2021 pedestrian survey for the project. No resources were identified as a result of the 2024 pedestrian survey for the expanded project site and the potential off-site improvement areas. P-9-1580/CA-ELD-1193/H is the abandoned portion of, P-9-1140/CA-ELD-3016/H1 consists of the former Dixon/Klump Ranch buildings, and P-9-1140/CA-ELD-3016/H2 consists of consists of a fieldstone reservoir or spring box. These three archaeological sites were recommended not eligible for the CRHR or NRHP. Therefore, these archaeological sites are not considered to be resources under CEQA.

P-9-5445 is a multicomponent (precontact and historic-era) archaeological site. The historic-era component consists of a partial fieldstone dry-laid corral or holding area for livestock and was recommended as not eligible for listing in the CRHR or NRHP. The precontact component consists of a rock outcrop containing the two shallow milling cups; although this portion was not evaluated for CRHR or NRHP listing, the cultural report did recommend that it be

treated as a resource under CEQA. The project, as currently designed, would not develop the area where this feature is located, and it would be left as open space.

P-9-1140/CA-ELD-3016/H3 is composed of three loci (Loci A, B, and C) and are all dry-laid rock walls. Locus C was recommended as not eligible for the CRHR and NRHP. Loci A and B were recommended as not eligible for the NRHP but were recommended eligible for the CRHR under Criterion 1. Locus B is located in open space along the western border of the project site, while Locus A is located on the edge of a few proposed residential lots along the southern border of the project site.

Components of the project (on-site and off-site associated with roadway and infrastructure improvements) that require earth-moving and excavation may damage known archaeological resources or result in the discovery of previously undisturbed archaeological deposits. Because project-related ground-disturbing activities could result in the damage or destruction of known or yet-undiscovered significant archaeological resources pursuant to Section 15064.5, this impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 3.3-1a: Develop and Implement a Worker Environmental Awareness Training

Green Valley Road Benefits shall retain a qualified professional archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeologists to prepare a worker environmental awareness training. Training shall be provided to all construction personnel and supervisors who will have the potential to encounter and alter archaeological resources. A copy of the worker environmental awareness training shall be provided to the County before construction activities begin. The topics to be addressed in the worker environmental awareness training will include, at a minimum:

- ▶ types of cultural resources located on the project site,
- ▶ types of evidence that indicates cultural resources might be present (e.g., glass shards, lithic scatters),
- ▶ what to do if a worker encounters a possible resource,
- ▶ what to do if a worker encounters animal bones or possible human bones, and
- ▶ repercussions for removing or intentionally disturbing archaeological resources.

Mitigation Measure 3.3-1b: For All Ground-Disturbing Construction Activities, Halt Ground Disturbance upon Discovery of Subsurface Archaeological Features

If any precontact or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted, and a qualified professional archaeologist shall be retained to assess the significance of the find. If the qualified archaeologist determines the archaeological material to be Native American in nature, Green Valley Road Benefits and the County shall contact the appropriate Native American tribe(s) for their input on the preferred treatment of the find. If the find is determined to be significant by the archaeologist (i.e., because it is determined to constitute a unique archaeological resource), the archaeologist shall develop, and Green Valley Road Benefits shall implement, appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place (which shall be the preferred manner of mitigating impacts on archaeological sites), archival research, subsurface testing, or contiguous block unit excavation and data recovery (when it is the only feasible mitigation, and pursuant to a data recovery plan).

Mitigation Measure 3.3-1c: Establish an Archaeological Buffer for P-9-1140 and P-9-5445

Before any ground-disturbing activities are conducted in the vicinity of the resources, a qualified archaeologist, in cooperation with a tribal monitor/consultant (if available), shall establish construction fencing around the rock outcrop containing two shallow milling cups of P-9-5445. This fencing shall be established five feet from the rock outcrop. In addition, a qualified archaeologist shall establish construction fencing around the CRHR-eligible portions

of P-9-1140 (Loci A and B). This fencing shall be established five feet from the rock walls. After both fencings are established, the fencings shall be checked periodically to make sure they remain in place, as determined by the archaeologist. This will ensure that the Loci A and B from P-9-1140 and the rock outcrop from P-9-5445 continue to be avoided during project-related work. The fences shall remain in place until project work in the vicinity of the resources is complete; the fence should be checked fence removal shall be overseen by the archaeologist.

Significance after Mitigation

Implementation of Mitigation Measures 3.3-1a through 3.3-1c would reduce impacts associated with archaeological resources to a **less-than-significant** level by providing training to construction personnel; requiring the performance of professionally accepted and legally compliant procedures in the event of a discovery, as well as the protection of any previously undocumented significant archaeological resources; and establishing protective fencing around significant resources. Application of these mitigation measures to the project would be consistent with General Plan Objective 7.5.1 and associated Policies 7.5.1.3 and 7.5.1.6 and Objective 7.5.2.4 and associated Policy 7.5.2.4.

Impact 3.3-2: Disturb Human Remains

Based on documentary research, no evidence suggests that any precontact or historic-era marked or unmarked human interments are present on or in the immediate vicinity of the project site or in the off-site roadway and infrastructure improvement areas. However, ground-disturbing construction activities could uncover previously unknown human remains. Compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would make this impact **less than significant**.

Based on documentary research, no evidence suggests that any precontact or historic-era marked or unmarked human interments are present on or in the immediate vicinity of the project site. However, grave sites and Native American remains can be located outside identified cemeteries and burial sites. Therefore, unmarked, previously unknown Native American or other graves could be present on the project site or in the off-site roadway and infrastructure improvement corridors and could be uncovered by project-related construction activities.

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

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

Compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains and to appropriately treat any remains that are discovered. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.4 BIOLOGICAL RESOURCES

This section addresses common and sensitive biological resources that could be affected by implementation of the project. Data reviewed in preparation of this analysis include:

- ▶ *Final Generations at Green Valley Biological Resources Assessment* (Madrone Ecological Consulting 2024a; Appendix C);
- ▶ *Preliminary Biological Resource Evaluation of a Potential Generations at Green Valley Sewer Line Alignment along Silva Valley Parkway* (Madrone Ecological Consulting 2024d; Appendix C);
- ▶ *Generations at Green Valley Special-Status Plant Survey Report* (Madrone Ecological Consulting 2022a; Appendix C);
- ▶ *Generations at Green Valley California Red-Legged Frog Habitat Assessment* (Madrone Ecological Consulting 2022b; Appendix C);
- ▶ *Evaluation of Potential California Red-Legged Frog (*Rana aurora draytonii*) Habitat on the Dixon Ranch Subdivision Project* (Hansen 2016; Appendix C);
- ▶ *Evaluation of Potential California Tiger Salamander (*Ambystoma californiense*) Habitat and Presence for the Dixon Ranch Subdivision Project* (Hansen 2013; Appendix C);
- ▶ *California Red-Legged Frog Habitat Assessment and Visual Encounter Survey Report* (Madrone Ecological Consulting 2024b; Appendix C);
- ▶ *Generations at Green Valley Aquatic Resources Delineation Report* (Madrone Ecological Consulting 2022c; Appendix C);
- ▶ *Request for Approved Jurisdictional Determination for the Generations at Green Valley Project in El Dorado County, California* (Madrone Ecological Consulting 2024c; Appendix C);
- ▶ *Amended Arborist Report – Off Site Improvements & Adjusted Generations at Green Valley* (California Tree and Landscape Consulting 2024a; Appendix C);
- ▶ *Arborist Memo for Silva Valley Parkway Alternative Sewer Routing Construction Potential Oak Impact* (California Tree and Landscape Consulting 2024b; Appendix C);
- ▶ *Generations at Green Valley - Oak Woodland Assessment and Mitigation Summary* (Madrone Ecological Consulting 2022d; Appendix C);
- ▶ results of California Natural Diversity Database (CNDDDB) record search of the Clarksville, Latrobe, Shingle Springs, Coloma, Folsom SE, Folsom, Pilot Hill, Rocklin, and Buffalo Creek US Geological Survey (USGS) 7.5-minute quadrangles (CNDDDB 2023);
- ▶ results of California Native Plant Society (CNPS), Inventory of Rare Plants search of the Clarksville, Latrobe, Shingle Springs, Coloma, Folsom SE, Folsom, Pilot Hill, Rocklin, and Buffalo Creek USGS 7.5-minute quadrangles (CNPS 2023);
- ▶ results of US Fish and Wildlife Service (USFWS) Information for Planning and Consultation electronic records search (USFWS 2023a); and
- ▶ aerial photographs of the project site and region.

Comments received on the Notice of Preparation (NOP) regarding biological resources included concerns regarding impacts on oak trees, oak woodlands, wildlife movement corridors, wildlife populations, endangered species, and wildlife habitat. These comments are addressed where appropriate throughout this section. The NOP and comments submitted in response to it are included in Appendix A.

3.4.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

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

Section 10 of the ESA applies if a nonfederal agency is the lead agency for an action that results in take and no other federal agencies are involved in permitting or funding the action. Section 7 of the ESA applies if a federal discretionary action is required (e.g., a federal agency must issue a permit), in which case the involved federal agency consults with USFWS.

Migratory Bird Treaty Act

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

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act, enacted in 1940 and amended multiple times since, prohibits the taking of bald and golden eagles without a permit from the Secretary of the Interior. Similar to the ESA, the Bald and Golden Eagle Protection Act defines “take” to include “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb” (16 US Code 668–668c). For the purpose of the act, disturbance that would injure an eagle, decrease productivity, or cause nest abandonment, including habitat alterations that could have these results, are considered take and can result in civil or criminal penalties.

Clean Water Act

Section 404 of the Clean Water Act (CWA) requires project applicants to obtain a permit from the US Army Corps of Engineers (USACE) before performing any activity that involves any discharge of dredged or fill material into waters of the United States, including some wetlands. As most recently amended in 2023, waters of the United States include navigable waters of the United States, interstate waters, tidally influenced waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent (i.e., having a continuous surface connection) to any of these waters or their tributaries (40 CFR. Section 120; 33 CFR. 328.3). Many surface waters and wetlands in California meet the criteria for waters of the United States.

In accordance with Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate state agency, which in California is the State Water Resources Control Board or designated regional water quality control board (RWQCB), indicating that the action would uphold state water quality standards.

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from California Department of Fish and Wildlife (CDFW) is required for projects that could result in the “take” of a plant or animal species that is listed by the state as threatened or endangered. Under CESA, “take” is defined as an activity that would directly or indirectly kill an individual of a species, but unlike the federal definition, the state definition does not include “harm” or “harass.” As a result, the threshold for take is higher under CESA than under the federal ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 incidental take permit.

California Fish and Game Code Sections 3503 and 3503.5—Protection of Bird Nests and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs and/or young.

Fully Protected Species under the California Fish and Game Code

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

California Fish and Game Code Section 1602—Lake and Streambed Alteration

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports fish or wildlife resources are subject to regulation by CDFW under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to do any of the following without first notifying CDFW:

- ▶ substantially divert or obstruct the natural flow of, or 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.

The regulatory definition of a stream is a body of water that flows at least periodically or intermittently through a bed or channel that has banks and supports fish or other aquatic life. This definition includes watercourses with a surface or subsurface flow that supports or has supported riparian vegetation (CCR Title 14, Section 1.72). CDFW jurisdiction in altered or artificial waterways is based on the value of those waterways to fish and wildlife. A lake and streambed alteration agreement must be obtained for any diversion or alteration that would substantially adversely affect a fish or wildlife resource in a river, stream, or lake.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) (California Fish and Game Code Section 1900 et seq.) allows the California Fish and Game Commission to designate plants as rare or endangered. Sixty-four species, subspecies, and varieties of plants are protected as rare under the NPPA. The act prohibits take of endangered or rare native plants but includes exceptions for agricultural and nursery operations; for emergencies; and, after proper notification of CDFW, for vegetation removal from canals, roads, and other building sites, changes in land use, and other situations.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state fall under the jurisdiction of the appropriate RWQCB. Waters located on the project site are under the jurisdiction of the Central Valley RWQCB. The RWQCB must prepare and periodically update water quality control plans (basin plans). Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control point and nonpoint sources of pollution to

achieve and maintain these standards. The RWQCB's jurisdiction includes federally protected waters, as well as areas that meet the definition of "waters of the state," including waters meeting the state definition of a wetland. Waters of the state are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. Under the state definition, an area is a wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater or shallow surface water or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area either lacks vegetation or the vegetation is dominated by hydrophytes.

RWQCB has the discretion to take jurisdiction over areas not federally protected under Section 401 of the CWA provided they meet the definition of waters of the state. The California Water Code generally regulates more substances contained in discharges and defines discharges to receiving waters more broadly than does the CWA. In addition, waters of the state cover a broader range of aquatic habitats than the CWA, including ephemeral streams and wetlands. Actions that affect waters of the state, including wetlands, must meet the RWQCB waste discharge requirements. This issue is addressed with respect to state-protected wetlands and associated biological resources in this section. It is addressed comprehensively in Section 3.9, "Hydrology and Water Quality."

LOCAL

El Dorado County General Plan

The adopted El Dorado County General Plan Conservation and Open Space Element (El Dorado County 2017) discusses significant natural resources in the county, including aquatic habitat, special-status species, and sensitive habitats, and it establishes goals, objectives, and policies related to these topics. The following objectives and policies from the El Dorado County General Plan are relevant to the project:

- ▶ **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 US Army Corps of Engineers (USACE) Wetland Delineation Manual.
 - **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.
- ▶ **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.
- ▶ **Objective 7.4.1:** Pine Hill Rare Plant Species - The County shall protect Pine Hill rare plant species and their habitats consistent 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 *Gabbro Soil Plants for the Central Sierra Nevada Foothills Recovery Plan* (USFWS 2002).
- ▶ **Objective 7.4.2:** Identify and Protect Resources - Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.

- **Policy 7.4.2.5:** Setbacks from all rivers, streams, and lakes shall be included in the Zoning Ordinance for all ministerial and discretionary development projects.
- **Policy 7.4.2.8:** Conserve contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County through a Biological Resource Mitigation Program (Program). The Program will result in the conservation of:
 1. Habitats that support special status species;
 2. Aquatic environments including streams, rivers, and lakes;
 3. Wetland and riparian habitat;
 4. Important habitat for migratory deer herds; and
 5. Large expanses of native vegetation.

A. Habitat Protection Strategy. The Program establishes mitigation ratios to offset impacts to special-status species habitat and special-status vegetation communities within the County.

Special-status species include plants and animals in the following categories:

- Species listed or proposed for listing as Threatened or Endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA);
- Species considered as candidates for listing as Threatened or Endangered under ESA or CESA;
- Wildlife species identified by CDFW as Species of Special Concern;
- Wildlife species identified by US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service as Species of Concern;
- Plants listed as Endangered or Rare under the California Native Plant Protection Act;
- Animals fully protected under the California Fish and Game Code; and
- Plants that have a California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) of 1A (plants presumed extirpated in California and either rare or extinct elsewhere), 1B (plants rare, threatened, or endangered in California and elsewhere), 2A (plants presumed extirpated in California, but more common elsewhere), or 2B (plants rare, threatened, or endangered in California, but more common elsewhere). The CNPS CRPRs are used by both CDFW and USFWS in their consideration of formal species protection under ESA or CESA.

With the exception of oak woodlands, which would be mitigated in accordance with the Oak Resources Management Plan (ORMP) (see General Plan Policy 7.4.4.4), and Pine Hill rare plant species and their habitat, which would be mitigated in accordance with County Code Chapter 130.71 (see General Plan Policy 7.4.1.1), mitigation of impacts to vegetation communities will be implemented in accordance with the table below. Preservation and creation of the following vegetation communities will ensure that the current range and distribution of special-status species within the County are maintained.

Table 3.4-1 Habitat Mitigation Summary Table

Vegetation Type	Preservation	Creation	Total
Water	NA	1:1	1:1
Herbaceous Wetland	1:1	1:1	2:1
Shrub and Tree Wetlands	2:1	1:1	3:1
Upland (non-oak and non-Pine Hill rare plant species habitat)	1:1	NA	1:1

- C. Biological Resources Assessment.** A site-specific biological resources technical report will be required to determine the presence of special-status biological resources that may be affected by a proposed discretionary project. Vegetation communities and special-status plants shall be mapped and assessed in accordance with the CDFG 2009 Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities and subsequent updates, and the List of Vegetation Alliances and Associations and subsequent updates. Any surveys conducted to evaluate potential presence of special-status wildlife species shall conform to practices recommended by CDFW and/or USFWS at the time of the surveys. The report will include an assessment of direct, indirect, and cumulative impacts to biological resources, including vegetation communities, plant and wildlife species and wildlife movement. The report shall include recommendations for:
- pre-construction surveys and avoidance/protection measures for nesting birds;
 - pre-construction surveys and avoidance/protection measures for roosting bats;
 - avoidance and minimization measures to reduce impacts related to entrapment, entanglement, injury, or poisoning of wildlife; and
 - avoidance and minimization measures to reduce indirect impacts to wildlife in open space adjacent to a project site. The results of the biological resources technical report shall be used as the basis for establishing mitigation requirements in conformance with this policy and the Oak Resources Management Plan (ORMP, see General Plan Policy 7.4.4.4).
- D. Habitat Protection.** Mitigation for impacts to vegetation communities defined above in Section A will occur within the County on a minimum contiguous habitat block of 5 acres. Wetlands mitigation may occur within mitigation banks and/or outside the County if within the watershed of impact. Mitigation sites will be prioritized based on the following criteria:
- Location within PCAs and IBCs;
 - Location within other important ecological areas, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010);
 - Woodland, forest and shrub communities with diverse age structure;
 - Woodland and forest communities with large trees and dense canopies;
 - Opportunities for active land management to be used to enhance or restore natural ecosystem processes;
 - Presence of or potential to support special-status species;
 - Connectivity with adjacent protected lands;
 - Parcels that achieve multiple agency and community benefits;
 - Parcels that are located generally to the west of the Eldorado National Forest; and
 - Parcels that would preserve natural wildlife movement corridors such as crossings under major roadways (e.g., US Highway 50 and across canyons).
- F. Mitigation Monitoring.** Prior to final approval of an individual development project, applicants shall submit to the County a Mitigation Monitoring Plan that provides for periodic monitoring of preserved lands to assess effectiveness of the measures implemented to protect special-status and native species. The Mitigation Monitoring Plan shall demonstrate that funding is secured to implement the monitoring strategy in perpetuity.
- **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.

El Dorado County General Plan Biological Resources Policy Update and Oak Resources Management Plan

The El Dorado County Board of Supervisors adopted the Biological Resources Policy Update and 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 this 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 now defines mitigation requirements for impacts on oak woodlands, individual native oak trees, and heritage trees. It also outlines El Dorado County's strategy for oak resource management and conservation. The ORMP establishes an in-lieu fee payment option for impacts on oak woodlands and oak trees and identifies Priority Conservation Areas where oak woodland conservation efforts will be focused.

The ORMP designates three classes of protected oak resources: oak woodlands that have at least 10-percent oak canopy; heritage trees, defined as native oaks with a total trunk diameter at breast height of 36 inches or greater; and individual oak trees, defined as native oak trees with a trunk diameter at breast height of 6 inches or greater that are not located in oak woodlands. An oak woodland removal permit is required before removal of oak trees that are part of an oak woodland, and an oak tree removal permit is required before removal of heritage trees and individual oak trees. Mitigation for impacts on oak woodlands is based on the total area affected, ranging from 1:1 mitigation for 0- to 50-percent removal to 2:1 mitigation for more than 75-percent removal. Mitigation may be completed with a combination of the following options: acquisition of an off-site conservation easement, payment of in-lieu fees, or either on- or off-site replacement planting of up to 50 percent of the required mitigation area. Mitigation for removal of heritage or individual oak trees requires on- or off-site replacement planting or payment of in-lieu fees at a 3:1 (heritage trees) or 1:1 (individual oak trees) ratio, respectively, to the number of trunk inches removed. Any oak woodland preserved on site and all mitigation planting areas must be protected in perpetuity through deed restrictions or a conservation easement.

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) establish standards for avoidance and minimization of impacts on wetlands and sensitive riparian habitat. This section of the ordinance applies to discretionary projects located adjacent to perennial streams, intermittent streams, wetlands, or any sensitive riparian habitat within the county. The ordinance requires new development to avoid or minimize impacts on 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. Storm drain and irrigation outflow structures are permitted as long as they are approved by the County as part of the development process.

El Dorado County Ecological Preserves Ordinance

Chapter 130.71 of the El Dorado County Code of Ordinances requires mitigation or payment of a fee in lieu of mitigation for development of any property within Mitigation Areas 0, 1, or 2. This fee is commonly referred to as the Rare Plant Mitigation Fee and is to be paid in full upon issuance of a building permit for all new developments within the county. "Mitigation Area 0" refers to lands in the Gabbro Soils Rare Plant Ecological Preserve, as shown on maps on file in the El Dorado County Planning and Building Department, adopted by Ordinance 4500. "Mitigation Area 1" refers to lands outside of Mitigation Area 0 but in the area described as the "rare soils study area" on the same map, and "Mitigation Area 2" refers to lands outside of Mitigation Areas 0 and 1 but in the El Dorado Irrigation District service area, excluding those lots served by wells.

3.4.2 Environmental Setting

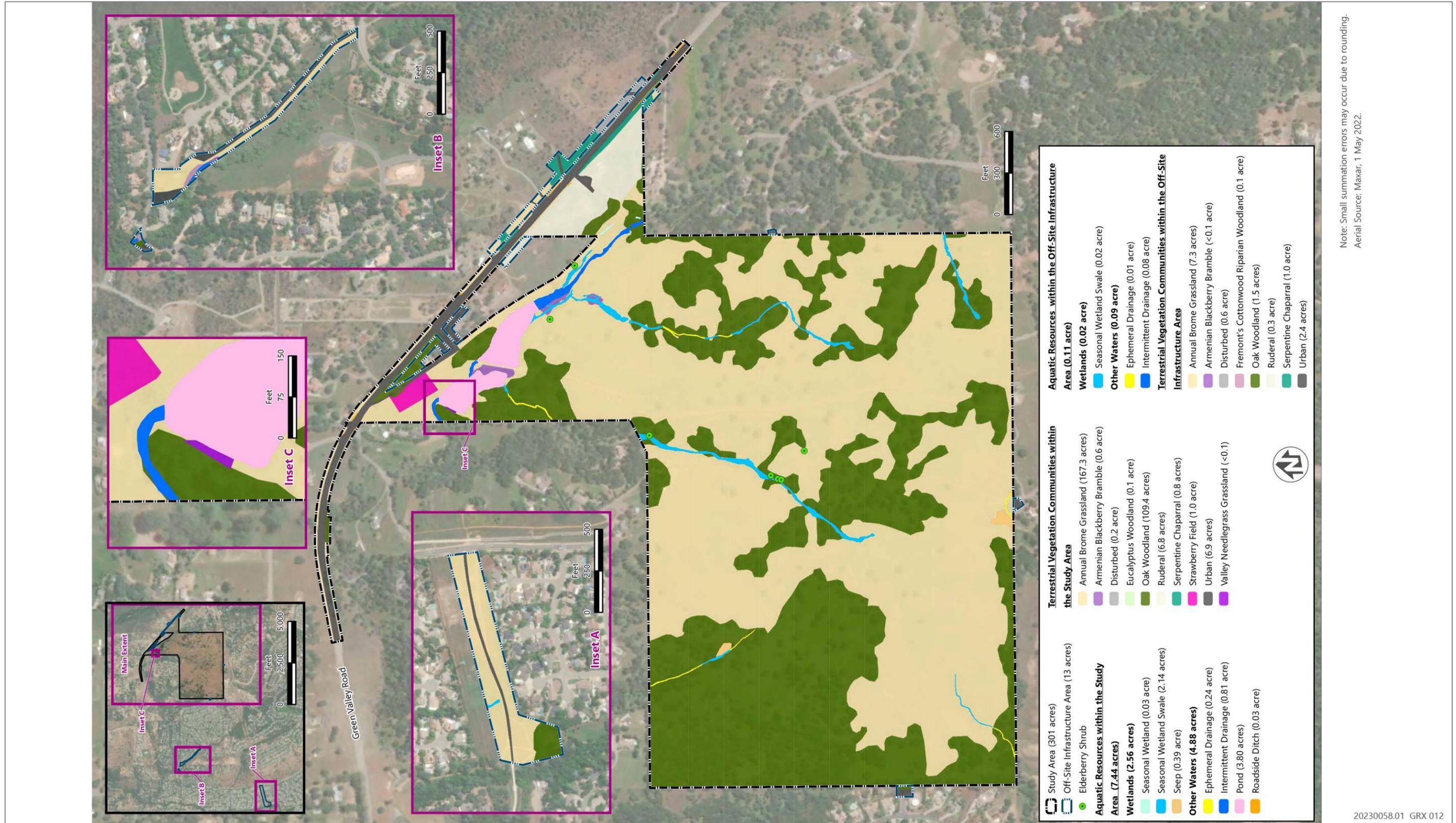
LAND COVER

As described in Chapter 2, “Project Description,” the project site encompasses an approximately 290-acre area planned for residential, recreation, and open space uses, and several off-site improvement (i.e., transportation, water supply, wastewater, electrical) areas. Land cover types present on the project site, including off-site improvement areas (including the off-site alternative wastewater alignment), are summarized in Table 3.4-2 and are shown in Figures 3.4-1 and 3.4-2. Eleven upland land cover types are present on the project site: annual brome grassland, oak woodland, ruderal, serpentine chaparral, disturbed, urban, strawberry field, Himalayan blackberry bramble, eucalyptus woodland, valley needlegrass grassland, and Fremont cottonwood riparian woodland. Several aquatic habitats are also present on the project site: ponds, seasonal wetland swales, intermittent drainages, seeps, ephemeral drainages, roadside ditches, and seasonal wetlands. Descriptions of each habitat type are included below (Madrone Ecological Consulting 2024a and 2024d; Appendix C). One land cover type, Fremont cottonwood riparian woodland, is present only in the off-site improvement areas.

Table 3.4-2 Land Cover on the Project Site

Land Cover	Extent on Main Project Site (acres)	Extent in Off-Site Improvement Areas (acres)
Upland Land Cover		
Annual brome grassland	167.3	9.3
Oak woodland	109.4	1.5
Urban	6.9	8.3
Ruderal	6.8	0.3
Serpentine chaparral	0.8	1.0
Strawberry field (agriculture)	1.0	—
Himalayan blackberry bramble	0.6	<0.1
Disturbed	0.2	2.7
Eucalyptus woodland	0.1	—
Valley needlegrass grassland	<0.1	—
Fremont cottonwood riparian woodland	—	0.1
Aquatic Land Cover		
Ponds	3.8	—
Seasonal wetland swales	2.1	<0.1
Intermittent drainages	0.8	<0.1
Seeps	0.4	—
Ephemeral drainages	0.2	<0.1
Roadside and wetland ditches	<0.1	0.2
Seasonal wetlands	<0.1	—

Source: Madrone Ecological Consulting 2024a and 2024d.

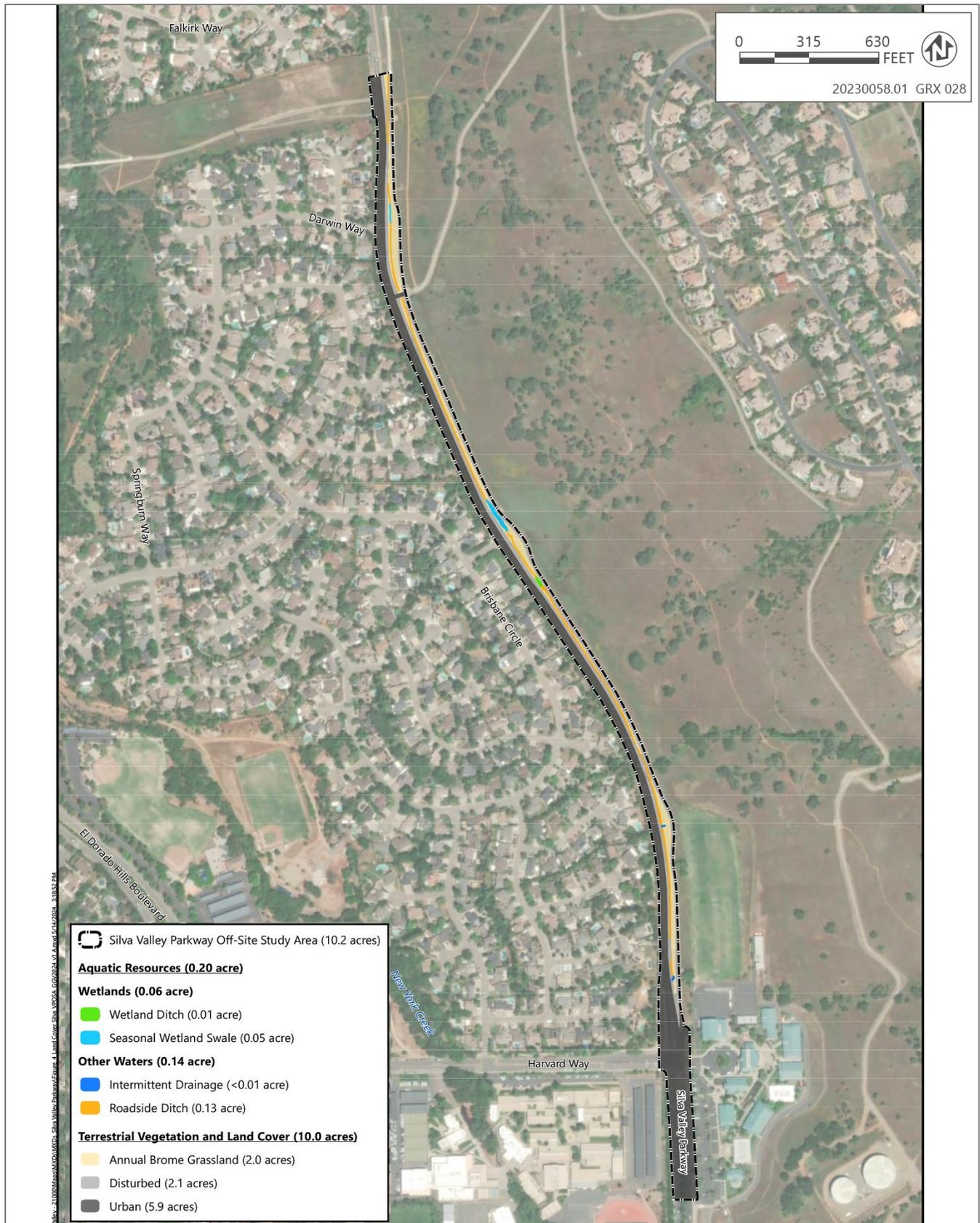


Note: Small summation errors may occur due to rounding.
Aerial Source: Maxar, 1 May 2022.

20230058.01 GRX 012

Source: Image produced and provided by Madrone Ecological Consulting in 2024 (Madrone 2024a), adapted by Ascent in 2024.

Figure 3.4-1 Terrestrial and Aquatic Land Cover on the Project Site



Source: Image produced and provided by Madrone Ecological Consulting in 2024 (Madrone 2024d), adapted by Ascent in 2024.

Figure 3.4-2 Terrestrial and Aquatic Land Cover on the Off-Site Improvement Area along Silva Valley Parkway

Upland Land Cover

Annual Brome Grassland

The project site contains approximately 177 acres of annual brome grasslands, which are dominated by ripgut brome (*Bromus diandrus*), medusa head (*Elymus caput-medusae*), and soft chess (*Bromus hordeaceus*) (Figures 3.4-1 and 3.4-2). Other common species include yellow star-thistle (*Centaurea solstitialis*), Mediterranean barley (*Hordeum marinum*), and wild geranium (*Geranium dissectum*). Some patches of the annual brome grassland support a diverse suite of native forbs, including wild hyacinth (*Triteleia hyacinthina*), valley sky lupine (*Lupinus nanus*), blue dicks (*Dipterostemon capitatus*), and common popcorn flower (*Plagiobothrys fulvus*).

Oak Woodland

The project site contains approximately 111 acres of oak woodlands (i.e., 109.4 acres on the main project site, 1.5 acres in the off-site improvement areas) composed primarily of valley oak (*Quercus lobata*), interior live oak (*Quercus wislizeni*), and blue oak (*Quercus douglasii*) (Figure 3.4-1). The understory is dominated by dogtail grass (*Cynosurus echinatus*), as well as plant species typical of the surrounding annual brome grasslands. A small component of the oak woodland along a seasonal wetland swale immediately south of Verde Valle Lane is riparian in nature and supports arroyo willow (*Salix lasiolepis*), blue elderberry (*Sambucus mexicana*), and Himalayan blackberry (*Rubus armeniacus*), in addition to the oaks.

Ruderal

Approximately 7 acres of ruderal vegetation are located in the northeastern portion of the project site, along Green Valley Road (Figure 3.4-1). This area has been extensively manipulated by several uses during the past decade, including growing, harvesting, and sale of strawberries, blackberries, and potentially other crops; stockpiling of soil; and grading/redistribution of the soil piles. As a result, the area is composed primarily of nonnative annual grassland species with a few scattered shallow depressions that support mesic vegetation.

Serpentine Chaparral

The project site contains approximately 2 acres of serpentine (or deer brush) chaparral, which is dominated by deer brush (*Ceanothus integerrimus* var. *integerrimus*), buck brush (*Ceanothus cuneatus* var. *cuneatus*), and gray pine (*Pinus sabiniana*) (Figure 3.4-1). Other shrubs observed in this community include toyon (*Heteromeles arbutifolia*), hoary coffeeberry (*Frangula californica* ssp. *tomentella*), and hollyleaf redberry (*Rhamnus ilicifolia*). Species observed in the understory of this community include soft chess, purple false brome (*Brachypodium distachyon*), common woolly sunflower (*Eriophyllum lanatum* var. *grandiflorum*), Ramm's madia (*Jensia rammii*), Q-tips (*Micropus californicus*), silver puffs (*Uropappus lindleyi*), common catchfly (*Silene gallica*), strigose lotus (*Acmispon strigosus*), and chaparral clarkia (*Clarkia affinis*).

Disturbed and Urban

Disturbed and urban areas on the project site (approximately 18 acres) are composed predominantly of impermeable surfaces (e.g., pavement, buildings), regularly maintained dirt roadways, and areas of maintained landscaping adjacent to residences (Figures 3.4-1 and 3.4-2). These areas generally do not support special-status species habitat, apart from foraging perches for raptors or possibly, but unlikely, nesting in landscape trees.

Strawberry Field

An approximately 1-acre field in the northern portion of the project site is annually planted with commercial strawberry plants that produce strawberries sold at a stand on the north side of Green Valley Road (Figure 3.4-1). During the growing and harvest season, this field is heavily maintained and almost entirely composed of cultivated strawberry plants. During fall and winter, the field is allowed to go fallow, and various weedy nonnative forbs colonize the area.

Himalayan Blackberry Bramble

An approximately 0.6-acre area of Himalayan blackberry brambles is present in the general vicinity of the ponds on the project site, as well as another small area in the off-site improvement area near the Highland Hills Lift Station

along Loch Way (Figure 3.4-1). Himalayan blackberry brambles are monocultures of Himalayan blackberry because this species forms dense patches that shade out all other vegetation.

Eucalyptus Woodland

An approximately 0.1-acre area of eucalyptus woodland occurs along the south side of Green Valley Road in the northwestern portion of the project site (Figure 3.4-1). This woodland is a monoculture of blue gum (*Eucalyptus globulus*).

Valley Needlegrass Grassland

An approximately 0.03-acre area of valley needlegrass grassland containing purple needlegrass (*Stipa pulchra*) is present on the dam of the western pond on the project site (Figure 3.4-1). In this area, purple needlegrass makes up approximately 80-percent cover and is interspersed with teasel (*Dipsacus fullonium*), Klamath weed (*Hypericum perforatum*), narrow leaf milkweed (*Asclepias fascicularis*), harvest brodiaea (*Brodiaea elegans*), and Baltic rush (*Juncus balticus*). Valley needlegrass grassland is considered by CDFW to be a sensitive natural community.

Fremont Cottonwood Riparian Woodland

An approximately 0.1-acre area of Fremont cottonwood riparian woodland is present in the off-site improvement area near the Highland Hills Lift Station along Loch Way (Figure 3.4-1). This habitat has a canopy dominated by Fremont cottonwood (*Populus fremontii*), black willow (*Salix gooddingii*), and arroyo willow. The understory is almost entirely composed of Himalayan blackberry. Fremont cottonwood riparian woodland is considered by CDFW to be a sensitive natural community.

Aquatic Land Cover

Ponds

Two ponds totaling approximately 3.8 acres, associated with historic impoundments of Green Spring Creek, are present on the project site (Figure 3.4-1). The western pond is perennial, and the eastern pond is intermittent most years. In most years, both appear to fill during winter. The western pond is unvegetated in the center because of the depth of the water. The edges of the western pond and much of the eastern pond contain plant species, including tule (*Schoenoplectus acutus* var. *occidentalis*), cattail (*Typha* sp.), creeping spike rush (*Eleocharis macrostachya*), water pepper (*Persicaria hydropiperoides*), and seep monkey flower (*Erythranthe guttata*).

Seasonal Wetland Swales

Approximately 2.1 acres of seasonal wetland swales are present on the project site (Figures 3.4-1 and 3.4-2). These features are dominated by Italian ryegrass (*Festuca perennis*), Mediterranean barley, curly dock (*Rumex crispus*), tall cyperus (*Cyperus eragrostis*), and spiny-fruited buttercup (*Ranunculus muricatus*).

Intermittent Drainages

A segment of Green Spring Creek, an intermittent drainage, totaling approximately 0.8 acre, flows through the northeastern portion of the project site (Figure 3.4-1). The creek is primarily unvegetated because of the scouring effects of flowing water. Vegetation that occurs along the fringes of Green Spring Creek is similar to that in the ponds. A segment of Allegheny Creek flows into and out of the off-site improvement area near the Highland Hills Lift Station along Loch Way (Figure 3.4-1). Allegheny Creek is entirely unvegetated in the channel, has small cobble/large gravel substrate, and flows for much of winter and into spring but is dry during the summer months. Two additional intermittent drainage segments cross the off-site improvement area along Silva Valley Parkway (Figure 3.4-2).

Seeps

Four seeps totaling approximately 0.4 acre are present on the project site (Figure 3.4-1). Plant species found in these seeps include Baltic rush, Mediterranean barley, Italian ryegrass, and buttercup.

Ephemeral Drainages and Roadside/Wetland Ditches

Seven ephemeral drainages (totaling approximately 0.3 acre), and 17 roadside ditches and one wetland ditch (totaling approximately 0.2 acre) on the project site experience ephemeral flow (Figures 3.4-1 and 3.4-2). These features convey stormwater flow only during and immediately following storm events. They are primarily unvegetated

because of the scouring effects of flowing water. Any vegetation that does occur is typically composed of ruderal upland plant species or species consistent with the surrounding upland vegetation community.

Seasonal Wetlands

Two depressional seasonal wetlands totaling approximately 0.03 acre are present on the project site. At the time these features were mapped, vegetation was sparse and consisted of stalked popcorn flower (*Plagiobothrys stipitatus* ssp. *micranthus*), curly dock, Mediterranean barley, and Italian ryegrass.

SENSITIVE BIOLOGICAL RESOURCES

Special-Status Species

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

- ▶ officially listed by California or the federal government as endangered, threatened, or rare;
- ▶ a candidate for state or federal listing as endangered, threatened, or rare;
- ▶ taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines;
- ▶ species identified by CDFW as Species of Special Concern;
- ▶ species listed as Fully Protected under the California Fish and Game Code;
- ▶ species afforded protection under local planning documents; and
- ▶ taxa considered by CDFW to be “rare, threatened, or endangered in California” and assigned a CRPR. The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern. The three relevant to the project are summarized as follows:
 - CRPR 1A - Plants presumed to be extinct in California;
 - CRPR 1B - Plants that are rare, threatened, or endangered in California and elsewhere; and
 - CRPR 2 - Plants that are rare, threatened, or endangered in California but more common elsewhere.

The term “California species of special concern” is applied by CDFW to animals that are not listed under the ESA or CESA but that are considered to be declining at a rate that could result in listing or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW’s fully protected status was California’s first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time, and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Of the 19 special-status plant species that are known to occur within the nine USGS 7.5-minute quadrangles including and surrounding the project site, nine species were determined to have potential to occur on the project site based on the presence of habitat suitable for the species (CNDDDB 2023; CNPS 2023; Madrone Ecological Consulting 2024a and 2024d; Appendix C) (Table 3.4-3). Of the 37 special-status wildlife species that could occur within the nine USGS quadrangles including and surrounding the project site, 21 species were determined to have potential to occur on the project site based on the presence of habitat suitable for the species (CNDDDB 2023; Madrone Ecological Consulting 2024a and 2024d; Appendix C) (Table 3.4-4). Tables 3.4-3 and 3.4-4 provide lists of the special-status plant and special-status wildlife species, respectively, that have been documented within the nine USGS quadrangles including and surrounding the project site. The tables describe the species’ regulatory status, habitat, and potential for occurrence on the project site.

Table 3.4-3 Special-Status Plant Species Known to Occur in the Vicinity of the Project Site and Their Potential for Occurrence on the Project Site

Species	Federal Listing Status ¹	State Listing Status ¹	CRPR	Habitat	Potential for Occurrence
Jepson's onion <i>Allium jepsonii</i>	—	—	1B.2	On serpentine soils in Sierra foothills, volcanic soil on Table Mountain. On slopes and flats; usually in an open area. 1,165–3,705 feet in elevation. Blooms April–August. Geophyte.	May occur. Habitat potentially suitable for this species is present in the serpentine chaparral areas on the project site. Protocol-level surveys for special-status plants were conducted in April, May, and June of 2021, and this species was not detected (Madrone Ecological Consulting 2024a, Appendix C). However, off-site improvement areas have not been surveyed.
Big-scale balsamroot <i>Balsamorhiza macrolepis</i>	—	—	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 115–4,805 feet in elevation. Blooms March–June. Perennial.	May occur. Habitat potentially suitable for this species is present throughout the project site. Protocol-level surveys for special-status plants were conducted in April, May, and June of 2021, and this species was not detected (Madrone Ecological Consulting 2024a, Appendix C). However, off-site improvement areas have not been surveyed.
Stebbins' morning-glory <i>Calystegia stebbinsii</i>	FE	SE	1B.1	On red clay soils of the Pine Hill formation; gabbro or serpentine; open areas. 985–2,380 feet in elevation. Blooms April–July. Geophyte.	May occur. Habitat marginally suitable for this species is present throughout the project site. Protocol-level surveys for special-status plants were conducted in April, May, and June 2021, and this species was not detected (Madrone Ecological Consulting 2024a, Appendix C). However, off-site improvement areas have not been surveyed.
Chaparral sedge <i>Carex xerophila</i>	—	—	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. Serpentinite, gabbroic. 1,475–2,525 feet in elevation. Blooms March–June. Perennial.	Not expected to occur. The project site is outside of the elevation range of this species.
Pine Hill ceanothus <i>Ceanothus roderickii</i>	FE	SR	1B.1	Rocky, gabbro-derived substrates; often in "historically disturbed" areas with an ensemble of other rare plants. 855–2,065 feet in elevation. Blooms April–June. Perennial.	Not expected to occur. The project site does not contain gabbro soils.
Red Hills soaproot <i>Chlorogalum grandiflorum</i>	—	—	1B.2	Occurs frequently on serpentine or gabbro, but also on nonultramafic substrates; often on "historically disturbed" sites. 805–4,070 feet in elevation. Blooms May–June. Geophyte.	May occur. Habitat potentially suitable for this species is present in the serpentine chaparral areas on the project site. Protocol-level surveys for special-status plants were conducted in April, May, and June 2021, and this species was not detected (Madrone Ecological Consulting 2024a, Appendix C). However, off-site improvement areas have not been surveyed.

Species	Federal Listing Status ¹	State Listing Status ¹	CRPR	Habitat	Potential for Occurrence
Dwarf downingia <i>Downingia pusilla</i>	—	—	2B.2	Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 5–1,610 feet in elevation. Blooms March–May. Annual.	May occur. Habitat potentially suitable for this species is present within seasonal wetlands on the project site. Protocol-level surveys for special-status plants were conducted in April, May, and June 2021, and this species was not detected (Madrone Ecological Consulting 2024a, Appendix C). However, off-site improvement areas have not been surveyed.
Tuolumne button-celery <i>Eryngium pinnatisectum</i>	—	—	1B.2	Volcanic soils; vernal pools and mesic sites within other natural communities. 230–3,000 feet in elevation. Blooms May–August. Annual/perennial.	May occur. Habitat potentially suitable for this species is present within seasonal wetlands, seeps, and seasonal wetland swales on the project site. Protocol-level surveys for special-status plants were conducted in April, May, and June 2021, and this species was not detected (Madrone Ecological Consulting 2024a, Appendix C). However, off-site improvement areas have not been surveyed.
Pine Hill flannelbush <i>Fremontodendron decumbens</i>	FE	SR	1B.2	Rocky ridges; gabbro or serpentine endemic; often among rocks and boulders. 1,395–2,510 feet in elevation. Blooms April–July. Perennial.	Not expected to occur. The project site is outside of the elevation range of this species.
El Dorado bedstraw <i>Galium californicum</i> ssp. <i>sierrae</i>	FE	SR	1B.2	In pine-oak woodland or chaparral. Occurs only on soil derived from gabbro rock of the Pine Hill Formation. 425–1,920 feet in elevation. Blooms May–June. Perennial.	Not expected to occur. The project site does not contain gabbro soils.
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	—	SE	1B.2	Clay soils; usually in vernal pools, sometimes on lake margins. 35–7,790 feet in elevation. Blooms April–August. Annual.	Not expected to occur. The seasonal wetlands on the project site do not have sufficient hydroperiod to support this species.
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	—	—	1B.2	Restricted to the edges of vernal pools in grassland. 100–330 feet in elevation. Blooms March–May. Annual.	Not expected to occur. The project site is outside of the elevational range of this species.
Legenere <i>Legenere limosa</i>	—	—	1B.1	In beds of vernal pools. 5–2,885 feet in elevation. Blooms April–June. Annual.	Not expected to occur. The seasonal wetlands on the project site do not have sufficient hydroperiod to support this species.
Pincushion navarretia <i>Navarretia myersii</i> ssp. <i>myersii</i>	—	—	1B.1	Vernal pools, wetland. Clay soils within nonnative grassland. 150–330 feet in elevation. Blooms April–May. Annual.	May occur. Habitat potentially suitable for this species is present within seasonal wetlands on the project site. Protocol-level surveys for special-status plants were conducted in April, May, and June 2021, and this species was not detected (Madrone Ecological Consulting 2024a, Appendix C). However, off-site improvement areas have not been surveyed.
Slender Orcutt grass <i>Orcuttia tenuis</i>	FT	SE	1B.1	Vernal pools, wetland. Often in gravelly substrate. 80–5,760 feet in elevation. Blooms May–September. Annual.	Not expected to occur. The seasonal wetlands on the project site do not have sufficient hydroperiod to support this species.

Species	Federal Listing Status ¹	State Listing Status ¹	CRPR	Habitat	Potential for Occurrence
Sacramento Orcutt grass <i>Orcuttia viscida</i>	FE	SE	1B.1	Vernal pools, wetland. 50–280 feet in elevation. Blooms April–July. Annual.	Not expected to occur. The seasonal wetlands on the project site do not have sufficient hydroperiod to support this species.
Layne's ragwort <i>Packera layneae</i>	FT	SR	1B.2	Ultramafic soil (serpentine or gabbro); occasionally along streams. 655–3,560 feet in elevation. Blooms April–August. Perennial.	May occur. Habitat potentially suitable for this species is present in the serpentine chaparral areas on the project site. Protocol-level surveys for special-status plants were conducted in April, May, and June 2021, and this species was not detected (Madrone Ecological Consulting 2024a, Appendix C). However, off-site improvement areas have not been surveyed.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	—	—	1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,135 feet in elevation. Blooms May–October. Geophyte.	May occur. Habitat potentially suitable for this species is present along the edges of the ponds and Green Spring Creek. Protocol-level surveys for special-status plants were conducted in April, May, and June 2021, and this species was not detected (Madrone Ecological Consulting 2024a, Appendix C). However, off-site improvement areas have not been surveyed.
El Dorado County mule ears <i>Wyethia reticulata</i>	—	—	1B.2	Stony red clay and gabbroic soils; often in openings in gabbro chaparral. 605–2,065 feet in elevation. Blooms April–August. Perennial.	Not expected to occur. The project site does not contain gabbro soils.

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

1 Legal Status Definitions

Federal:

FE Federally listed as endangered (legally protected by the ESA)

FT Federally listed as threatened (legally protected by the ESA)

State:

SE State listed as endangered (legally protected by CESA)

SR State listed as rare (legally protected by the NPPA)

California Rare Plant Ranks (CRPR):

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

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

CRPR Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)

0.2 Moderately threatened in California (20–80% occurrences threatened; moderate degree and immediacy of threat)

Sources: CNDDDB 2023; CNPS 2023; Madrone Ecological Consulting 2024a and 2024d.

Table 3.4-4 Special-Status Wildlife Species Known to Occur in the Vicinity of the Project Site and Their Potential for Occurrence on the Project Site

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat	Potential for Occurrence
Amphibians and Reptiles				
California red-legged frog <i>Rana draytonii</i>	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. Requires 11–20 weeks of permanent water for larval development. Must have access to estivation habitat.	May occur, determined to be absent. Habitat assessments and focused surveys for California red-legged frog were conducted on the project site in 2013, 2016, 2021, 2023, and 2024 (including a habitat assessment of the off-site improvement areas in 2024), and California red-legged frogs were not observed (Hansen 2016; Madrone Ecological Consulting 2022b, 2024a, 2024b). Additionally, predatory species, such as Centrarchids (<i>Lepomis</i> sp.), American bullfrog (<i>Lithobates catesbeianus</i>), and mosquitofish (<i>Gambusia affinis</i>) have been observed in the ponds on the project site, which may reduce the likelihood of California red-legged frog presence (Hansen 2016; Madrone Ecological Consulting 2022b, 2024a). Although the species was previously determined to be absent on the project site, potential aquatic breeding habitat is present in the ponds and seeps on the project site, and Green Spring Creek and Allegheny Creek contain potential dispersal habitat for this species (Hansen 2016; Madrone Ecological Consulting 2022b, 2024a, 2024b). Uplands on the project site may provide upland habitat suitable for this species.
California tiger salamander - central California DPS <i>Ambystoma californiense</i> pop. 1	FT	ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Needs underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not expected to occur. The project site is outside the range of this species. A habitat assessment for California tiger salamander was completed in 2013 at the request of the previous landowner at the time, and this assessment noted that the project site is not in the documented range of the species (Hansen 2013).
Coast horned lizard <i>Phrynosoma blainvillii</i>	—	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	May occur. Roadsides, openings in serpentine chaparral, and ruderal habitat on the project site may provide habitat suitable for this species.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat	Potential for Occurrence
Foothill yellow-legged frog (South Sierra DPS) <i>Rana boylei</i> pop. 5	FE	SE	Sierra Nevada from South Fork American River subbasin (HU 8) in El Dorado County south to Tehachapi Mountains in Kern County. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	May occur. Foothill yellow-legged frogs have been recently (2023) documented in Sweetwater Creek, approximately 1.5 miles north of the project site (CNDDDB 2023). Both Green Spring Creek and Allegheny Creek are ephemeral and do not provide ideal habitat for the species. Green Spring Creek is too heavily grazed, and Allegheny Creek contains too dense of a riparian canopy to provide habitat for foothill yellow-legged frog. However, the species may use the two creeks to travel between suitable habitats in the project region.
Giant gartersnake <i>Thamnophis gigas</i>	FT	ST	Prefers freshwater marsh and low-gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Not expected to occur. The project site is outside the geographic range of this species.
Western pond turtle <i>Emys marmorata</i>	FP	SSC	Ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000-foot elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to approximately 0.3 mile from water for egg-laying.	Known to occur. Ponds on the project site are inhabited by western pond turtles, and Green Spring Creek and Allegheny Creek may provide aquatic habitat suitable for western pond turtle (Madrone Ecological Consulting 2024a, Appendix C). Areas surrounding these features may provide upland habitat for the species.
Western spadefoot <i>Spea hammondi</i>	FP	SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Not expected to occur. The seasonal wetlands on the project site do not have a period of inundation sufficient to support this species.
Birds				
American goshawk <i>Accipiter atricapillus</i>	—	SSC	Nests primarily in conifer forest and aspen stands with high canopy closure (typically greater than 70 percent), relatively high density of large live and dead trees, low density of small trees, and low shrub/sapling and ground cover. Reuses old nests and maintains alternate nest sites. Often nests on gentle to moderate north slopes and near water. Forages in moderately dense, mature forests and younger forests, some openings, and along forest edges. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Not expected to occur. The project site is outside the range of this species.
Bald eagle <i>Haliaeetus leucocephalus</i>	FD	SE FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	May occur. The project site does not contain nesting habitat suitable for bald eagles; however, the ponds may provide foraging habitat.
Bank swallow <i>Riparia riparia</i>	—	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, and ocean to dig nesting hole.	Not expected to occur. Vertical cliff or bank habitat is not present on the project site.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat	Potential for Occurrence
Burrowing owl <i>Athene cunicularia</i>	—	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent on burrowing mammals, most notably, the California ground squirrel.	May occur. Although the project site is outside the breeding range of burrowing owl, it is within the wintering range and contains grassland habitat that may provide wintering habitat suitable for this species. The nearest documented occurrence of a burrowing owl in the CNDDB is approximately 4.5 miles southwest of the project site, and an unverified observation of a burrowing owl less than 1 mile west of the project site was submitted to iNaturalist (a citizen science database) in 2022 (CNDDB 2023; iNaturalist 2024).
California black rail <i>Laterallus jamaicensis coturniculus</i>	—	ST FP	Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	May occur. Marsh vegetation along the edges of the ponds on the project site may provide habitat marginally suitable for California black rail.
Golden eagle <i>Aquila chrysaetos</i>	—	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	May occur. Large trees on the project site may provide nesting habitat suitable for golden eagles, and the grassland on the project site may provide foraging habitat.
Grasshopper sparrow <i>Ammodramus savannarum</i>	—	SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting.	May occur. Grassland habitat on the project site may provide habitat suitable for grasshopper sparrows.
Loggerhead shrike <i>Lanius ludovicianus</i>	—	SSC	Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	May occur. Trees and shrubs on the project site may provide nesting habitat for loggerhead shrikes.
Northern harrier <i>Circus hudsonius</i>	—	SSC	Nests and forages in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	May occur. Vegetation along the edges of the ponds and Green Spring Creek on the project site may provide nesting habitat suitable for northern harrier.
Purple martin <i>Progne subis</i>	—	SSC	Inhabits woodlands, low-elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	Not expected to occur. Conifers and human-made nesting habitat suitable for purple martin is not present on the project site.
Swainson's hawk <i>Buteo swainsoni</i>	—	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands, or alfalfa or grain fields supporting rodent populations.	Not expected to occur. The project site is outside the breeding range of Swainson's hawk.
Tricolored blackbird <i>Agelaius tricolor</i>	—	ST SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few miles of the colony.	May occur. The cattails and tules in the ponds and Himalayan blackberry brambles on the project site may provide nesting habitat suitable for tricolored blackbirds, and surrounding grasslands provide foraging habitat potential for this species.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat	Potential for Occurrence
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT	SE	Riparian forests, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not expected to occur. The project site does not contain the dense, flooded riparian habitat preferred by this species.
White-tailed kite <i>Elanus leucurus</i>	—	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	May occur. Large trees on the project site may provide nesting habitat suitable for white-tailed kites and the grassland on the project site may provide foraging habitat.
Yellow warbler <i>Setophaga petechia</i>	—	SSC	Riparian plant associations close to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets and in other riparian plants, including cottonwoods, sycamores, ash, and alders.	May occur. Riparian habitat on the project site may provide nesting habitat for yellow warbler.
Yellow-breasted chat <i>Icteria virens</i>	—	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	May occur. Riparian habitat on the project site may provide nesting habitat for yellow-breasted chat.
Fish				
Delta smelt <i>Hypomesus transpacificus</i>	FT	SE	Sacramento–San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait, and San Pablo Bay.	Not expected to occur. Aquatic habitat suitable for this species is not present on the project site.
Steelhead - Central Valley DPS <i>Oncorhynchus mykiss irideus</i> pop. 11	FT	—	Populations in the Sacramento and San Joaquin Rivers and their tributaries.	Not expected to occur. Aquatic habitat suitable for this species is not present on the project site.
Invertebrates				
Crotch's bumble bee <i>Bombus crotchii</i>	—	SC	Found primarily in California: Mediterranean, Pacific coast, western desert, Great Valley, and adjacent foothills through most of southwestern California. Habitat includes open grassland and scrub. Nests underground.	May occur. Although the population of Crotch's bumble bee has declined significantly, the project site is within the current range of this species. The nearest recent (2020) occurrence of Crotch's bumble bee is approximately 14 miles southwest of the project site (CNDDDB 2023). The project site contains floral resources and natural habitat that may provide foraging, breeding, and overwintering habitat suitable for Crotch's bumble bee.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat	Potential for Occurrence
Monarch <i>Danaus plexippus</i>	FC	—	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Along migration routes and within summer ranges, monarch butterflies require two suites of plants: (1) host plants for monarch caterpillars, which are primarily milkweeds (<i>Asclepias</i> spp.) within the family Apocynaceae upon which adult monarchs lay eggs; and (2) nectar-producing flowering plants of many other species that provide food for adult butterflies. Having both host and nectar plants available from early spring to late fall and along migration corridors is critical to the survival of migrating pollinators.	May occur. The project site is outside the overwintering range of monarch butterflies. However, milkweed plants and other floral resources are present on the project site (Madrone Ecological Consulting 2024a, Appendix C); thus, monarch may forage or breed on the project site.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	—	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus mexicana</i>). Prefers to lay eggs in elderberry stems 2–8 inches in diameter; some preference shown for “stressed” elderberries.	Not expected to occur. The project site contains blue elderberry shrubs; however, the currently accepted range of valley elderberry longhorn beetle is limited to areas below 500 feet in elevation, which is lower than the project site elevation by several hundred feet (USFWS 2023b).
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	—	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not expected to occur. The seasonal wetlands on the project site do not have a sufficient period of inundation to support this species.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE	—	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Not expected to occur. The seasonal wetlands on the project site do not have a sufficient period of inundation to support this species.
Western bumble bee <i>Bombus occidentalis</i>	—	SC	Once common throughout much of its range, in California, this species is currently largely restricted to high-elevation sites in the Sierra Nevada and the northern California coast. Habitat includes open grassy areas, chaparral, scrub, and meadows. Requires suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	Not expected to occur. The project site is outside the current range of this species.
Mammals				
American badger <i>Taxidea taxus</i>	—	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	May occur. Grassland habitat on the project site may provide habitat marginally suitable for American badger.
Fisher <i>Pekania pennanti</i>	—	SSC	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high-percent canopy closure. Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	Not expected to occur. The project site is outside the geographical range of fisher.

Species	Federal Listing Status ¹	State Listing Status ¹	Habitat	Potential for Occurrence
Northern California ringtail <i>Bassariscus astutus raptor</i>	—	FP	Dens most often in rock crevices, boulder piles, or talus, but also tree hollows, root cavities, and rural buildings. Rarely uses same den for more than a few days. Females with litters change dens within 10 days of birth and almost daily after 20 days.	Not expected to occur. The project site does not contain habitat suitable for ringtail largely because of the proximity to development and associated disturbance.
Pallid bat <i>Antrozous pallidus</i>	—	SSC	Most common in open, dry habitats with rocky areas for roosting. Tree roosting has also been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and inside bole cavities in oaks. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	May occur. Roosting habitat potentially suitable for pallid bats is present in tree hollows and under exfoliating bark on trees throughout the project site.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	—	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Requires large cavities for roosting, which may include abandoned buildings and mines, caves, and basal cavities of trees. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	May occur. Abandoned buildings south of the ponds on the project site may provide roosting habitat suitable for this species.
Western red bat <i>Lasiurus frantzii</i>	—	SSC	Roosts primarily in trees, 2–40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	May occur. Trees throughout the project site may provide roosting habitat suitable for western red bat.

Notes: CNDDDB = California Natural Diversity Database; CEQA = California Environmental Quality Act; DPS = distinct population segment.

1 Legal Status Definitions

Federal:

- FE Federally listed as endangered (legally protected)
- FT Federally listed as threatened (legally protected)
- FC Candidate for listing under the ESA
- FP Proposed for listing under the ESA
- FD Federally delisted

State:

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

Sources: CNDDDB 2023; Hansen 2013; Hansen 2016; iNaturalist 2024; Madrone Ecological Consulting 2022b, 2024a, 2024b, 2024d; USFWS 2023a, 2023b.

State and Federally Protected Wetlands

The project site contains several aquatic habitats, as described above under "Land Cover." Wetland delineation surveys of the project site were conducted on April 26, 2021; May 7, 2021; May 24, 2021; June 9, 2021; January 5, 2024; and April 25, 2024 (Madrone Ecological Consulting 2022c, 2024c, and 2024d). A request for a Preliminary Jurisdictional Determination and an Approved Jurisdictional Determination of the resulting aquatic resources delineation map was submitted to USACE in August 2022, but was not verified by USACE. An updated request for an Approved Jurisdictional Determination, including a portion of the off-site improvement areas (i.e., not including the potential off-site improvement area along Silva Valley Parkway), was submitted to USACE in April 2024 (Madrone Ecological Consulting 2024c). The updated request includes an analysis of federal jurisdiction under the current definition of waters of the United States. Most of the aquatic features (i.e., ponds, seasonal wetland swales, intermittent drainages, seeps, ephemeral drainages, roadside ditches, seasonal wetlands) on the project site may

meet the state and federal definitions of wetlands (Madrone Ecological Consulting 2022c; Madrone Ecological Consulting 2024c). Approximately 0.02 acre of roadside ditches are constructed in uplands along Green Valley Road and currently drain only uplands. These features do not appear to be rerouted stream channels and are likely excluded from USACE jurisdiction. All delineated aquatic resources on the project site are expected to be considered waters of the state and would be subject to regulation by the Central Valley RWQCB and CDFW.

Sensitive Natural Communities

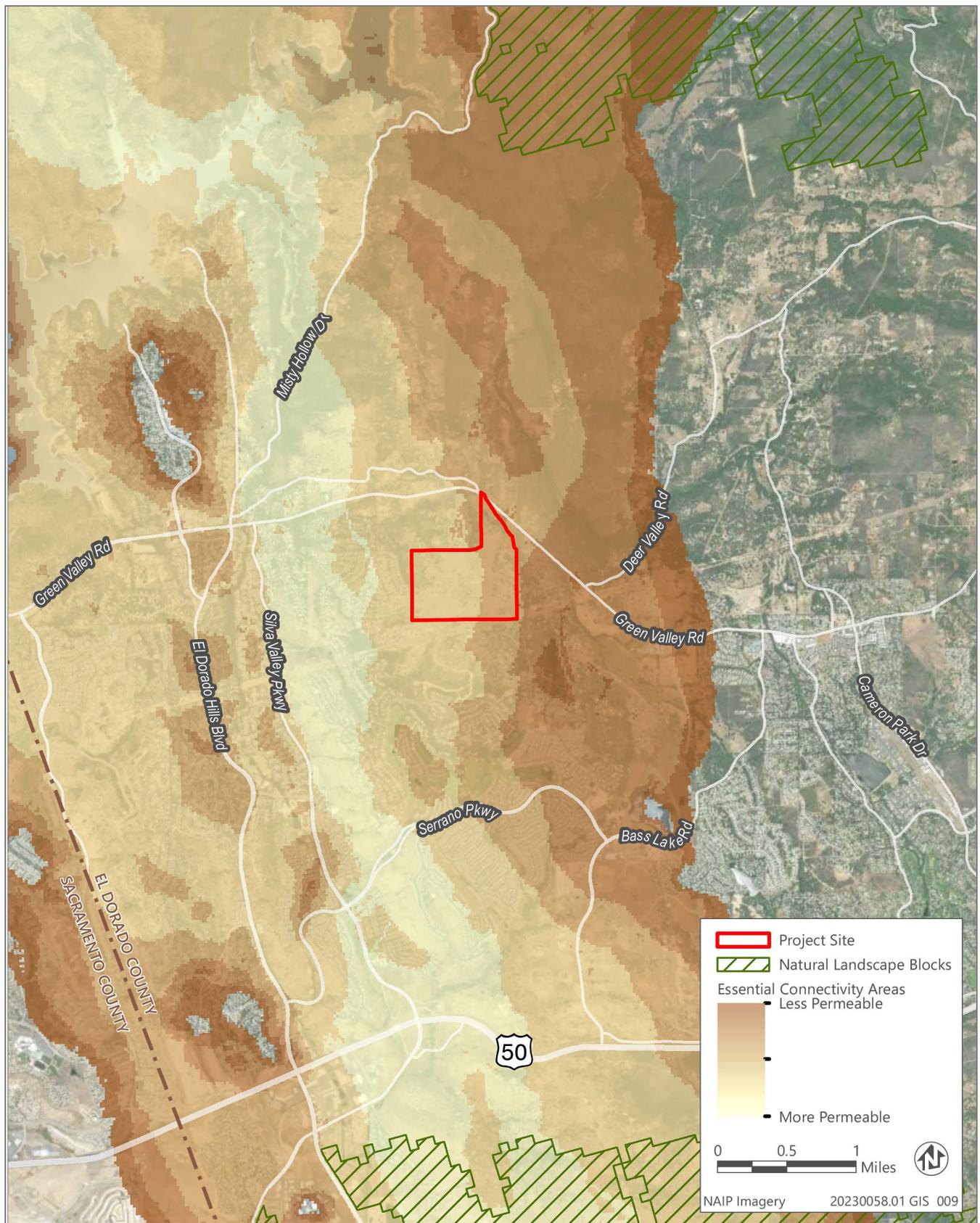
Sensitive natural communities are those native plant communities defined by CDFW as having limited distribution statewide or within a county or region and that are often vulnerable to environmental effects of projects (CDFW 2018). These communities may or may not contain special-status plants or their habitat (CDFW 2018). CDFW designates sensitive natural communities based on their state rarity and threat ranking using NatureServe's Heritage Methodology. Natural communities with rarity ranks of S1 to S3, where S1 is critically imperiled, S2 is imperiled, and S3 is vulnerable, are considered sensitive natural communities to be addressed in the environmental review processes of CEQA and its equivalents (CDFW 2018). Four sensitive natural communities were identified in the CNDDDB as having potential to occur on the project site: Central Valley drainage hardhead/squawfish stream, northern hardpan vernal pool, northern volcanic mud flow vernal pool, and valley needlegrass grassland (CNDDDB 2023). The project site does not contain hardhead/squawfish stream habitat, vernal pool habitat, or volcanic soils. Approximately 0.013 acre of valley needlegrass grassland is present on the project site (Figure 3.4-1, Table 3.4-2). This sensitive natural community is also referred to as Needle grass – Melic grass grassland and has a state rank of S3S4 (i.e., vulnerable) (Sawyer et al. 2009). Additionally, approximately 0.1 acre of Fremont cottonwood riparian woodland is present on the project site in an off-site improvement area (Figure 3.4-1, Table 3.4-2). This sensitive natural community has a state rank of S3.2 (i.e., threatened) (Sawyer et al. 2009).

Many riparian plant communities qualify as sensitive natural communities based on the plant associations therein. In addition, riparian habitats are protected under Section 1602 of the California Fish and Game Code. The project site contains approximately 0.1 acre of Fremont cottonwood riparian woodland habitat, and a small component of the oak woodland habitat along a seasonal wetland swale immediately south of Verde Valle Lane is riparian (Figure 3.4-1, Table 3.4-2).

Wildlife Movement Corridors

A wildlife movement corridor is generally a topographical/landscape feature or movement zone that connects two or more natural habitat areas. Wildlife corridors link areas of suitable wildlife habitat that are separated by variation in vegetation, rugged terrain, human disturbance and habitat fragmentation, or other biophysical factors. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors, allowing animals to move between various locations in their range. Therefore, wildlife movement and migration corridors are considered an important ecological resource by CDFW and other agencies and are protected by many local governments in California.

Some of the important areas for habitat connectivity in California were mapped as Essential Connectivity Areas (ECA) for the California Essential Habitat Connectivity Project, which was commissioned by the California Department of Transportation and CDFW with the purpose of making transportation and land use planning more efficient and less costly, while helping reduce dangerous wildlife-vehicle collisions (Spencer et al. 2010). The ECAs were not developed for the purposes of defining areas subject to specific regulations by CDFW or other agencies. The project site is located in an ECA modeled by the California Essential Habitat Connectivity Project that connects natural landscape blocks north and south of the project site (Figure 3.4-3) (CDFW 2024). The project site contains natural habitat, and although it is surrounded by rural residential development, this development is likely not dense enough to completely limit wildlife movement. The project site likely does not currently function as a critical habitat linkage (i.e., supporting large numbers of migrating animals); however, it likely functions as a movement corridor for some wildlife species. El Dorado County General Plan Policy 7.4.2.9 also establishes the Important Biological Corridor (-IBC) overlay, which applies to lands as having high wildlife habitat values because of extent, habitat function, connectivity, and other factors. The project site is not within the -IBC overlay.



Source: Data downloaded from CDFW's website in 2024.

Figure 3.4-3 Essential Connectivity Areas in the Vicinity of the Project Site

Wildlife Nursery Sites

Nursery sites are locations where fish or wildlife concentrate for hatching and/or raising young, such as nesting rookeries for birds (e.g., herons, egrets), spawning areas for native fish, fawning areas for mule deer (*Odocoileus hemionus*), and maternal roosts for bats. The oak woodland and eucalyptus woodland habitats on the project site may provide roosting habitat potentially suitable for special-status bats (e.g., pallid bat, western red bat) or common bat species (e.g., big brown bat [*Eptesicus fuscus*], silver-haired bat [*Lasionycteris noctivagans*]).

3.4.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

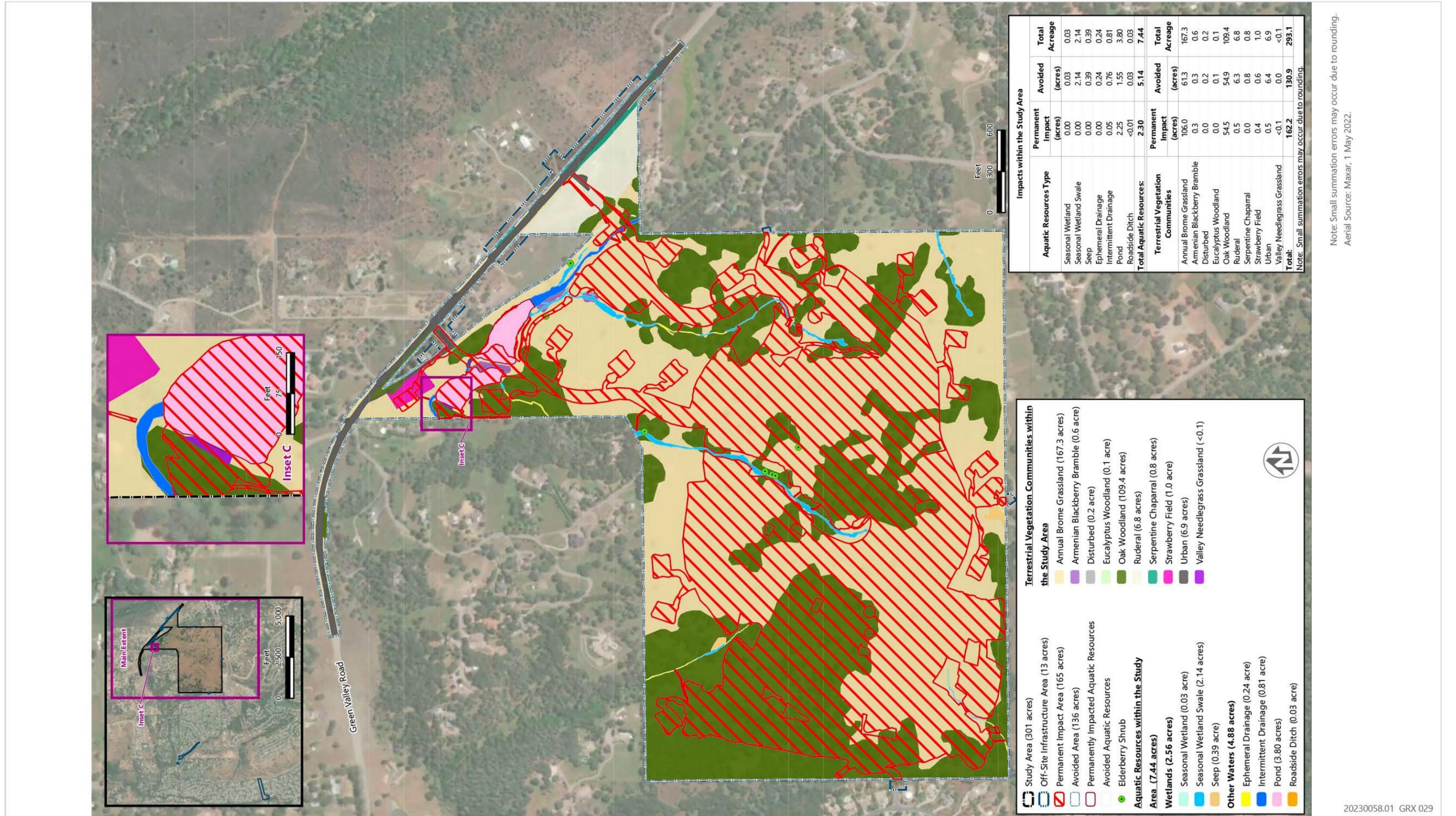
This impact evaluation is based on existing biological resource assessments, review of aerial photographs, and review of existing databases that address biological resources in the project vicinity as described above. Focused and protocol-level surveys on the project site were conducted, as described above. Special-status plant surveys were conducted on the project site 2021 and followed methodology described in the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000), the *Botanical Survey Guidelines of the California Native Plant Society* (CNPS 2001), and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). California red-legged frog surveys were conducted on the main project site and off-site improvement areas in 2024, and followed methodology described in *Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog* (USFWS 2005). Aquatic resource delineation surveys were conducted on the main project site and off-site improvement areas in 2024, following methods approved by USACE. Additional details regarding previous surveys and methods are included in Appendix C.

For the purposes of this impact analysis, the assumed extent of permanent impacts and acres of impacts on each vegetation type are shown in Figure 3.4-4. The extent of impact in the off-site improvement areas is unknown at this time; therefore, for the purposes of this impact analysis, it is assumed that impacts could occur anywhere in the off-site improvement areas. This includes consideration of the off-site alternative wastewater alignment.

THRESHOLDS OF SIGNIFICANCE

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

- ▶ have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- ▶ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- ▶ have a substantial adverse effect on state 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; or
- ▶ conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.



Source: Image produced and provided by Madrone Ecological Consulting in 2024 (Madrone 2024a), adapted by Ascent in 2024.

Figure 3.4-4 Extent of Potential Impacts on the Project Site

ISSUES NOT DISCUSSED FURTHER

Consistency with Habitat Conservation Plans

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, this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

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

Development of the project site, including ground disturbance associated with construction of residences, other buildings, roads, parking areas, and off-site improvement infrastructure (e.g., pipeline, conduit, cable), could result in direct removal of special-status plants or damage that results in the eventual loss of special-status plants if they are present on the project site. Because the loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species, this impact would be **significant**.

A total of 19 special-status plant species were identified as having potential to occur in the vicinity of the project site (Table 3.4-3) (CNDDDB 2023; CNPS 2023; Madrone Ecological Consulting 2024a; Appendix C). Of these 19 species, nine have potential to occur on the project site: Jepson's onion, big-scale balsamroot, Stebbins' morning-glory, Red Hills soaproot, dwarf downingia, Tuolumne button-celery, pincushion navarretia, Layne's ragwort, and Sanford's arrowhead (Table 3.4-3). Protocol-level surveys for special-status plants were conducted on the main portion of the project site in 2021 during the bloom periods for these species, and no special-status plant species were observed (Madrone Ecological Consulting 2022a, 2024a). However, off-site improvement areas have not been surveyed, and habitat suitable for special-status plants is also present in these areas.

Project implementation, including ground disturbance and vegetation removal associated with construction of residences, other buildings, roads, parking areas, and off-site improvement infrastructure (e.g., pipeline, conduit, cable), could result in direct removal of special-status plants if they are present or in habitat alterations or plant damage that leads to the ultimate death of special-status plants or failure to successfully reproduce. Loss of special-status plants could substantially affect the abundance, distribution, and viability of local and regional populations of these species; thus, this impact would be **significant**.

Mitigation Measure

Mitigation Measure 3.4-1: Conduct Special-Status Plant Surveys, and Implement Avoidance Measures and Mitigation

The following requirements apply to the off-site improvement areas. However, if project activities in the main portion of the project site that was surveyed in 2021 do not commence prior to spring of 2025, these requirements shall apply to the entire project site.

- ▶ Before implementation of project construction activities and during the blooming period for the special-status plant species with potential to occur on the project site (Table 3.4-5), a qualified botanist shall conduct protocol-level surveys for special-status plants in the off-site improvement areas and shall resurvey the main project site following survey methods from CDFW's Protocols for Surveying and Evaluating Impacts on Special-Status Native Plant Populations and Natural Communities (CDFW 2018 or most recent version). The qualified botanist shall (1) be knowledgeable about plant taxonomy; (2) be familiar with plants of the Sierra Nevada region, including special-status plants and sensitive natural communities; (3) have experience conducting floristic botanical field surveys as described in CDFW's protocol document; (4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at <http://vegetation.cnps.org/>); and (5) be familiar with federal and state statutes and regulations related to plants and plant collecting.
- ▶ If special-status plants are not found, the botanist shall document the findings in a report to the applicant and El Dorado County, and no further mitigation shall be required.

Table 3.4-5 Typical Blooming Period for Special-Status Plants That May Occur on the Project Site

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Jepson’s onion												
Big-scale balsamroot												
Stebbins’ morning-glory												
Red Hills soaproot												
Dwarf downingia												
Tuolumne button-celery												
Pincushion navarretia												
Layne’s ragwort												
Sanford’s arrowhead												

Note: This is the published blooming period for the species across their entire range and through history. The actual blooming period for any species at a given location in a given year is variable and should be based on observations of nearby reference populations.

Source: Data compiled by Ascent in 2024; CNPS 2023.

- ▶ If special-status plants are found during special-status plant surveys and cannot be avoided, the applicant shall, in coordination/consultation with CDFW or USFWS, as appropriate depending on species status, develop and implement a site-specific mitigation strategy to compensate for loss of occupied habitat or individuals. Mitigation measures shall include, at a minimum, preserving and enhancing existing populations, establishing populations through seed collection or transplantation from the site that is to be affected, and/or restoring or creating habitat in sufficient quantities to offset loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside the project site. Habitat and individual plants lost shall be mitigated at a minimum 1:1 ratio, considering acreage as well as function and value. The following success criteria shall be used for preserved and compensatory populations:
 - The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than that in the affected occupied habitat.
 - Compensatory and preserved populations shall be self-producing. Populations would be considered self-producing when:
 - plants reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding; and
 - reestablished and preserved habitats contain an occupied area and flower density comparable to those in the existing occupied habitat areas in similar habitat types in the project vicinity.
 - If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the mitigation plan, including designating responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria, including at a minimum, those listed above and other details, as determined appropriate by a qualified biologist to target the preservation of long-term viable populations.

Documentation of the completion of the mitigation strategy and coordination/consultation process with CDFW or USFWS shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-1 would reduce the significant impact on special-status plants to a **less-than-significant** level by requiring protocol-level surveys for special-status plants and implementation of avoidance measures and compensation for impacts on special-status plants if they are present on the main project site and off-site improvement areas. Application of this mitigation measure to the project would be consistent with General Plan Objective 7.4.1 and Policy 7.4.2.8.

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

Project implementation would include land use conversion and development activities including ground disturbance, vegetation removal, and overall conversion of wildlife habitat, which could result in disturbance, injury, or mortality of several special-status wildlife species if present, reduced breeding productivity of these species, and loss of species habitat. This impact would be **significant**.

Twenty-one special-status wildlife species have potential to occur on the project site: California red-legged frog, coast horned lizard, foothill yellow-legged frog, western pond turtle, bald eagle, burrowing owl (wintering), California black rail, golden eagle, grasshopper sparrow, loggerhead shrike, northern harrier, tricolored blackbird, white-tailed kite, yellow warbler, yellow-breasted chat, Crotch’s bumble bee, monarch, American badger, pallid bat, Townsend’s big-eared bat, and western red bat (Table 3.4-4). California red-legged frogs were determined to be absent from the project site during protocol-level surveys; however, this species could colonize the project site in the future (Madrone Ecological Consulting 2024b). Western pond turtles were documented in the ponds on the project site during surveys conducted in 2023 (Madrone Ecological Consulting 2024a; Appendix C). Additionally, native birds without special status protected by the California Fish and Game Code and the federal MBTA may also nest on the project site. Project activities associated with construction of residences, other buildings, roads, parking areas, and off-site improvement infrastructure (e.g., pipeline, conduit, cable) will include tree removal, vegetation clearing, ground disturbance, staging, and heavy equipment use that may result in direct loss of special-status wildlife species, loss of or disturbance to nests or dens, or disturbance leading to abandonment of active nests or dens. Tables 3.4-6 and 3.4-7 show the sensitive season (Table 3.4-6) and survey timing (Table 3.4-7) for special-status wildlife species.

Table 3.4-6 Special-Status Wildlife Sensitive Season¹

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
California red-legged frog (<i>year-round</i>) ²												
Foothill yellow-legged frog (<i>year-round</i>)												
Coast horned lizard (<i>year-round</i>)												
Western pond turtle (<i>year-round</i>)												
Burrowing owl												
Nesting Birds												
Crotch’s bumble bee (<i>year-round</i>)												
Monarch												
American badger (<i>year-round</i>)												
Special-status bats (<i>year-round</i>)												

1 The sensitive season is the period during which impacts on the species from project activities could occur, and surveys described in project mitigation measures would be required.

2 If construction does not start before July 2025.

Source: Data compiled by Ascent in 2024.

Table 3.4-7 Special-Status Wildlife Survey Timing

Species	Timing
California red-legged frog	If construction does not start before July 2025, January through September (up to 8 surveys)
Foothill yellow-legged frog	Focused Surveys: breeding season (April through October) prior to the start of planned construction activities (at least 3 surveys); Pre-Activity Survey: within 24 hours of ground-disturbing activities and pond dewatering activities
Coast horned lizard	Within 14 days prior to project activities, year-round

Species	Timing
Western pond turtle	Within 24 hours of commencement of ground-disturbing activities and pond dewatering activities, year-round
Burrowing owl	Within 14 days prior to initial ground-disturbing activities for project activities that would occur September through January
Nesting Birds	Within 7 days prior to project activities for project activities that would occur February through August
Crotch's bumble bee	During the colony active period (April through August) closest to the start of planned construction activities (multiple surveys)
Monarch	Within 14 days prior to milkweed plant removal, for project activities that would occur mid-March through late September
American badger	Within 14 days prior to project activities, year-round
Special-status bats	Within 14 days prior to tree removal, year-round

Source: Data compiled by Ascent in 2024.

California Red-Legged Frog

California red-legged frogs were determined to be absent from the project site during protocol-level surveys conducted in 2023 (Madrone Ecological Consulting 2024b). During the protocol-level survey and habitat assessment, it was determined that aquatic habitat potentially suitable for breeding California red-legged frogs is present in the two ponds and a seep on the project site and that Green Spring Creek and Allegheny Creek (which flows through the northernmost off-site improvement area) provide potential dispersal habitat (Madrone Ecological Consulting 2024b). Upland areas on the project site may also provide upland habitat suitable for the species.

The results of surveys conducted in 2023 are valid for 2 years, and after 2 years, it is presumed that California red-legged frogs could colonize suitable habitat on the project site. Project construction is assumed to start in April 2025 (See Section 2.6, "Construction Activities and Phasing"); however, market conditions would ultimately determine the rate and extent of construction, and if construction does not start before July 2025, and California red-legged frogs are present on the project site, project activities (i.e., pond dewatering and removal, vegetation clearing, ground disturbance, staging, heavy equipment use) may result in direct loss of California red-legged frogs if they are present. This impact would be **significant**.

Mitigation Measure

Mitigation Measure 3.4-2a: Conduct Protocol-Level Surveys for California Red-Legged Frogs, Implement Conservation Measures, and Consult with USFWS

If construction does not start before July 2025, the following measures shall be implemented to minimize the likelihood of take of California red-legged frogs before and during project construction:

- ▶ The project applicant shall obtain a qualified biologist to repeat USFWS protocol surveys for California red-legged frog in accordance with the *Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog* (USFWS 2005) in the two on-site ponds, the seep, Green Spring Creek, and Allegheny Creek (i.e., within the off-site improvement area).
- ▶ If California red-legged frogs are not detected, then additional mitigation would not be required. If California red-legged frogs are detected, the following measures shall be implemented.
 - The project applicant shall consult with USFWS under Section 7 or Section 10 of the ESA. USACE is presumed to be the federal action agency because it has jurisdiction over the aquatic habitat on the project site (see Impact 3.4-4). If it is determined, in consultation with USFWS, that take of this species could occur after implementation of the conservation measures described below, then the project applicant may be required to obtain incidental take authorization through Section 7 consultation or a Section 10 permit pursuant to the ESA. In this case, the project shall not proceed until a Biological Opinion is issued by USFWS.

- The following Conservation Measures shall be implemented before and during project implementation.
 - A biologist approved by USFWS (approved biologist) shall supervise and implement all conservation measures. All construction contracts shall expressly include language requiring compliance with the conservation measures.
 - At least 30 days before the start of project construction activities, the project applicant shall submit to USFWS the names and credentials of all biologists proposed to work on the project for approval. No project work shall begin until the project applicant has received approval from USFWS that biologists are qualified to implement the proposed conservation measures.
 - The approved biologist shall provide mandatory worker awareness training for all project construction personnel before work begins. The training shall describe, at a minimum, the biology, identification, and habitat needs of California red-legged frog and the conservation measures (e.g., avoidance measures, best management practices, notification protocols if California red-legged frogs are encountered) required to protect them.
 - Amphibian exclusionary fencing shall be installed between aquatic habitat (i.e., on-site ponds, seeps, Green Spring Creek, and Allegheny Creek) and the work area to prevent California red-legged frogs from dispersing from aquatic habitat into the active work area. The fencing shall be installed under the direction of the approved biologist. The exclusion fencing shall be maintained for the duration of project construction and shall be inspected by the biologist at least once per week.
 - The approved biologist shall survey the development area for California red-legged frog no more than 48 hours before the start of project construction work (i.e., visual encounter surveys using walking transects of the entire development area). If California red-legged frogs are detected during the survey, project construction activities shall cease within a buffer surrounding the individual the size of which shall be established by the qualified biologist, but shall be at least 100 feet, and CDFW and USFWS shall be notified.
 - Each morning before work begins, the approved biologist shall inspect all vehicles, heavy equipment, and stored pipes for the presence of California red-legged frogs.
 - The approved biologist shall be present at work areas during initial ground-disturbing activities within 500 feet of the on-site ponds, the seep, Green Spring Creek, and Allegheny Creek and shall be available to visit work areas at all other times in the event a California red-legged frog is encountered.
 - The approved biologist may designate biological monitors to oversee on-site compliance with all conservation measures. The approved biologist shall ensure that monitors receive appropriate training, including training on the identification of California red-legged frogs. If this species is encountered in work areas, biological monitors shall be authorized to stop any construction activities that may pose a threat to the animal, all equipment shall be turned off, and the approved biologist shall be notified immediately. Work shall not continue until the biologist has contacted CDFW and USFWS for guidance.
 - Project construction activities in areas where California red-legged frog occurs shall not occur during the rainy season, when California red-legged frogs may be active (typically November through March), unless the entire development area has been graded before the onset of winter rains. For any work activities occurring after the onset of winter rains (i.e., usually mid-November, but variable from year to year), the approved biologist or biological monitor trained by the approved biologist shall be present at all times, even if ground-disturbing activities have been completed. Periodic monitoring may be acceptable, as approved by USFWS.
 - If a work area is to be dewatered by pumping (e.g., the ponds), intakes shall be completely screened with mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system.
 - Nighttime construction work shall not occur.

- All food-related trash items shall be disposed of in secure, closed containers and removed regularly to reduce the potential to attract predators. After construction, all trash and construction debris shall be removed from work areas on the project site.
- All refueling, maintenance, and staging of equipment and vehicles shall occur at least 60 feet from habitat adjacent to the project site that may be occupied by any life stage of the California red-legged frog.
- Additional conservation measures may be recommended by USFWS during the consultation process, and these measures shall be implemented by the project applicant and shall supersede the measures described above.

Documentation of compliance with this mitigation measure and the consultation process with USFWS shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2a would reduce the potential impact on California red-legged frog to a **less-than-significant** level by requiring protocol-level surveys if project construction begins after July 2025 and implementation of conservation measures to reduce the likelihood of take of this species, consultation with USFWS, and potential incidental take permitting from USFWS if California red-legged frogs are detected and take is determined to be likely. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

Coast Horned Lizard

Coast horned lizards typically occur in open areas with loose soil and scattered, low bushes for cover. Habitat potentially suitable for coast horned lizard on the project site includes openings in serpentine chaparral, roadsides, annual grassland and valley oak woodland habitat. Project activities (i.e., vegetation clearing, ground disturbance, staging, heavy equipment use, construction of off-site improvements) may result in direct loss of coast horned lizards if they are present. This impact would be **significant**.

Mitigation Measure

Mitigation Measure 3.4-2b: Conduct Preconstruction Surveys for Coast Horned Lizard, Implement Avoidance Measures, and Relocate Individuals

- ▶ Within 14 days before the initiation of any construction activity or off-site improvements, a qualified biologist familiar with the life history of coast horned lizard shall conduct a focused visual survey of habitat suitable for this species on the project site, which shall include walking linear transects of the site.
- ▶ If coast horned lizards are not detected during the focused survey, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County, and further mitigation shall not be required.
- ▶ If coast horned lizards are detected, a qualified biologist with an appropriate CDFW Scientific Collecting Permit that allows handling of reptiles shall be present during initial ground disturbance activities and shall inspect the project site before initiation of project activities. If coast horned lizards are detected, the qualified biologist shall move individuals into nearby suitable habitat that will not be disturbed by project activities.

Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2b would reduce the potential impact on coast horned lizard to a **less-than-significant** level by requiring focused visual surveys for the species and relocation to suitable habitat of individuals by a qualified biologist with an appropriate CDFW Scientific Collecting Permit if any are detected. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

Foothill Yellow-Legged Frog

Foothill yellow-legged frogs generally occur in rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Both Green Spring Creek and Allegheny Creek exhibit flows that are too irregular, Green Spring Creek is too heavily grazed, and the riparian canopy along Allegheny Creek is too dense to provide breeding habitat suitable for foothill yellow-legged frogs. The nearest documented occurrence of foothill yellow-legged frogs is approximately 1.3 miles north of the project site, along Sweetwater Creek (CNDDDB 2023). Although unlikely, there is potential for foothill yellow-legged frog to occasionally use Green Spring Creek and Allegheny Creek (which flows through the northernmost off-site improvement area) as dispersal corridors between occupied habitat areas. Project implementation would include removal of the ponds through replacement of the upstream culvert crossing with a new crossing and removal of the downstream embankment. Although these activities would result in restoration of the Green Spring Creek channel to its approximate natural state, foothill yellow-legged frogs could be injured or killed if they are present. This impact would be **significant**.

Mitigation Measure

Mitigation Measure 3.4-2c: Implement Conservation Measures for Foothill Yellow-Legged Frog and Consult with CDFW and USFWS

Before and during activities associated with pond removal (e.g., pond dewatering, other in-water work) and other project construction activities (e.g., vegetation clearing, ground disturbance, staging, heavy equipment use) within approximately 50 feet of Green Spring Creek, Allegheny Creek (i.e., within the off-site improvement area), or the ponds, the following measures shall be implemented to minimize the likelihood of take of foothill yellow-legged frogs:

- ▶ Because the project site is within the range of foothill yellow-legged frog and dispersal habitat potentially suitable for this species is present on the project site (i.e., creeks), the project applicant shall obtain a qualified biologist to conduct focused surveys for foothill yellow-legged frog in accordance with *Visual Encounter Survey Protocol for Rana boylei in Lotic Environments* (Peek et al. 2017) or any official protocol subsequently released by CDFW or USFWS. Focused surveys shall be conducted when different life stages (e.g., egg masses, tadpoles, adults) of the species are most identifiable, which is during and immediately following the breeding season. To increase the likelihood of detection, at least three surveys will be conducted, including a survey during the breeding/oviposition period (April–June) prior to project implementation, a tadpole survey in the late spring/early summer (June through early August) prior to project implementation, and a survey for subadult and adult foothill yellow-legged frogs in the late summer (late August through early October) prior to project implementation. If any foothill yellow-legged frog life stage is detected during focused surveys, subsequent surveys would not be required and the project proponent would initiate consultation with CDFW and USFWS as described below.
- ▶ If foothill yellow-legged frogs are not detected during the focused surveys described above, within 24 hours of commencement of ground-disturbing activities and pond dewatering activities, a qualified biologist shall conduct a final pre-activity survey of Green Valley Creek and Allegheny Creek for foothill yellow-legged frogs (including egg masses, tadpoles, and adults).
- ▶ If foothill yellow-legged frogs are not detected during the focused surveys and pre-activity survey, then additional mitigation would not be required. If foothill yellow-legged frogs are detected during any of the above-described surveys, the following measures shall be implemented.
 - Consultation with USFWS under Section 7 or Section 10 of the ESA shall occur. USACE is presumed to be the federal action agency because it has jurisdiction over the aquatic habitat on the project site (see Impact 3.4-4). If it is determined, in consultation with CDFW and USFWS, that take of foothill yellow-legged frog could occur after implementation of the conservation measures described below, then the project applicant may be required to obtain incidental take authorization through Section 7 consultation or a Section 10 permit pursuant to the ESA and through Section 2081 of the California Fish and Game Code pursuant to CESA. In this case, the project shall not proceed until a Biological Opinion is issued by USFWS.
 - The following Conservation Measures shall be implemented before and during project implementation.

- A biologist approved by CDFW and USFWS (approved biologist) shall supervise and implement all conservation measures. All construction contracts shall expressly include language requiring compliance with the conservation measures.
- At least 30 days before the start of project construction activities, the project applicant shall submit to CDFW and USFWS the names and credentials of all biologists proposed to work on the project for approval. No project work shall begin until the project applicant has received approval from CDFW and USFWS that biologists are qualified to implement the proposed conservation measures.
- The approved biologist shall provide mandatory worker awareness training for all project construction personnel before work begins. The training shall describe, at a minimum, the biology, identification, and habitat needs of foothill yellow-legged frogs and the conservation measures (e.g., avoidance measures, best management practices, notification protocols if foothill yellow-legged frogs are encountered) required to protect them.
- Amphibian exclusion fencing shall be installed between aquatic habitat (i.e., Green Spring Creek, and Allegheny Creek) and the work area to prevent foothill yellow-legged frogs from dispersing from aquatic habitat into the active work area. The fencing shall be installed under the direction of the approved biologist. The exclusion fencing shall be maintained throughout the life of the project construction and shall be inspected by the biologist at least once per week.
- The approved biologist shall survey the development area for foothill yellow-legged frogs no more than 48 hours before the start of activities associated with pond removal (e.g., pond dewatering, other in-water work) and other project construction activities (e.g., vegetation clearing, ground disturbance, staging, heavy equipment use) within approximately 50 feet of Green Spring Creek, Allegheny Creek, or the ponds. If foothill yellow-legged frogs are detected during the survey, all project construction activities shall cease within a buffer surrounding the individual the size of which shall be established by the qualified biologist, but shall be at least 100 feet, and CDFW and USFWS shall be notified.
- Each morning before work begins, the approved biologist shall inspect all vehicles, heavy equipment, and stored pipes for the presence of foothill yellow-legged frogs.
- The approved biologist shall be present at work areas during all initial ground-disturbing activities within 50 feet of Green Spring Creek, Allegheny Creek, and the ponds and shall be available to visit work areas at all other times in the event that a foothill yellow-legged frog is encountered.
- The approved biologist may designate biological monitors to oversee on-site compliance with all conservation measures. The approved biologist shall ensure that monitors receive appropriate training, including training on the identification of foothill yellow-legged frogs. If this species is encountered in work areas, biological monitors shall be authorized to stop any construction activities that may pose a threat to the animal, all equipment shall be turned off, and the approved biologist shall be notified immediately. Work shall not continue until the biologist has contacted CDFW and USFWS for guidance.
- If a work area is to be dewatered by pumping (e.g., the ponds), intakes shall be completely screened with mesh not larger than 0.2 inch to prevent foothill yellow-legged frogs from entering the pump system.
- Nighttime construction work shall not occur.
- All food-related trash items shall be disposed of in secure, closed containers and removed regularly to reduce the potential to attract predators. After construction, all trash and construction debris shall be removed from work areas on the project site.
- All refueling, maintenance, and staging of equipment and vehicles shall occur at least 50 feet from habitat adjacent to the development area (i.e., creeks) that may be occupied by any life stage of foothill yellow-legged frog.

- Additional conservation measures may be recommended by CDFW or USFWS during the consultation process, and these measures shall be implemented by the project applicant, and shall supersede the measures described above.

Documentation of compliance with this mitigation measure and the consultation process with CDFW and USFWS shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2c would reduce the potential impact on foothill yellow-legged frog to a **less-than-significant** level by requiring implementation of conservation measures to reduce the likelihood of take of this species, consultation with CDFW and USFWS, and potential incidental take permitting from CDFW and USFWS. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

Western Pond Turtle

Western pond turtles can be found in many different aquatic habitats, including ponds (natural or human-made), marshes, rivers, and irrigation ditches. Western pond turtles use upland habitat for basking and egg-laying. Upland habitat may include grasslands, scrub, and woodland habitats. Western pond turtles are known to travel into uplands up to 0.3 mile (approximately 1,600 feet) from aquatic habitat (Reese and Welsh 1997). Several western pond turtles were in the ponds on the project site during surveys (Madrone Ecological Consulting 2024a; Appendix C). It is also likely that western pond turtles use Green Spring Creek and Allegheny Creek (which flows through the northernmost portion of the off-site improvement area) as migration corridors and may nest in the uplands adjacent to the ponds. Project activities (i.e., pond dewatering and removal, vegetation clearing, ground disturbance, staging, heavy equipment use, construction of off-site improvements) may result in direct loss of western pond turtles and occupied burrows if they are present. This impact would be **significant**.

Mitigation Measure

Mitigation Measure 3.4-2d: Conduct Preconstruction Surveys for Western Pond Turtle, Implement Avoidance Measures, and Relocate Individuals

- ▶ Western pond turtles are known to occupy the ponds on the project site. Within 24 hours of commencement of ground-disturbing activities and pond dewatering activities, a qualified biologist familiar with the life history of western pond turtle and experienced in performing surveys for western pond turtle shall conduct a focused survey of aquatic and upland habitat suitable for the species on the project site, including segments of creeks that may be used as migration corridors for the species (i.e., Green Spring Creek, Allegheny Creek). The qualified biologist shall inspect the project site for western pond turtles, as well as suitable terrestrial nesting or overwintering habitat (i.e., burrows).
- ▶ If a western pond turtle nest is observed within the project site during the preconstruction survey, the nest shall be fenced off and avoided until the eggs hatch or the nest is no longer active, as determined by a qualified biologist. The fenced area shall be open on one side with the opening facing the nearest aquatic habitat so that hatchling turtles can freely travel from the nest to the aquatic habitat. A qualified biologist shall monitor the nest area to ensure that hatchlings do not disperse into the construction area. Monitoring shall occur until the qualified biologist determines that the nest is no longer be active. If any hatchlings are observed on the project site, relocation of hatchlings shall occur as described in the encounter protocol below.
- ▶ A qualified biologist shall be present during all pond dewatering activities and initial ground-disturbing activities to monitor these activities. If a western pond turtle is encountered, work shall be suspended in a 100-foot radius of the animal until the animal leaves the project site on its own volition. If necessary, a qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation, which shall include, but not be limited to, obtaining a valid and applicable CDFW Scientific Collecting Permit. Any worker who inadvertently injures or kills a western pond turtle or who finds a western pond turtle dead, injured, or entrapped must immediately report the incident to the applicant, who must immediately notify CDFW. Entrapped western pond

turtles shall be relocated by a qualified biologist with a valid and applicable CDFW Scientific Collecting Permit if approved by CDFW.

- ▶ Because western pond turtle is proposed for listing under the ESA, if the species is listed before the completion of project construction activities that could result in injury to or mortality of turtles (i.e., pond dewatering, ground disturbance, grading, land conversion), then the project applicant may be required to consult with USFWS under Section 7 or Section 10 of the ESA. USACE is presumed to be the federal action agency because it has jurisdiction over the aquatic habitat on the project site (see Impact 3.4-4). If it is determined, in consultation with USFWS, that take of this species could occur after implementation of the measures described above, then the project applicant may be required to obtain incidental take authorization through Section 7 consultation or a Section 10 permit pursuant to the ESA. In this case, the project shall not proceed until a Biological Opinion is issued by USFWS.
 - Any conservation measures developed in coordination with USFWS during the course of formal or informal consultation under Section 7 or during Section 10 consultation would supersede the measures listed here.
 - Such conservation measures could include, but would not be limited to, seasonal work restrictions for initial ground disturbance, preconstruction surveys by a qualified biologist, installation of wildlife exclusion fencing, 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; work with a local land trust to preserve land; or any other method acceptable to USFWS.
- ▶ If USFWS determines that listing of western pond turtle under ESA is not warranted, or the species is not listed prior to project completion, then the above measures related to consultation with USFWS would not be applicable.

Documentation of compliance with this mitigation measure and the coordination/consultation process with CDFW and USFWS shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2d would reduce the potential impact on western pond turtle to a **less-than-significant** level by requiring focused surveys for the species, implementation of measures to avoid injury or mortality of western pond turtles if they are detected, biological monitoring, relocation of individual turtles by a qualified biologist with an appropriate CDFW Scientific Collecting Permit, and consultation with USFWS under Section 7 of the ESA if the species is listed under ESA before construction activities are completed. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

Burrowing Owl

Annual grassland habitat on the project site (i.e., the main project site and off-site improvement areas) may provide habitat suitable for burrowing owl. The project site and vicinity are located in the easternmost extent of the range of burrowing owl on the western slope of the Sierra Nevada. The portion of the species' range that overlaps the project site is considered winter range for burrowing owl; therefore, burrowing owls are not expected to nest on the project site. However, burrowing owls may overwinter on the site. Project activities (i.e., vegetation clearing, ground disturbance, staging, heavy equipment use) may result in direct loss of burrowing owls or active burrows if they are present. This impact would be **significant**.

Mitigation Measure

Mitigation Measure 3.4-2e: Conduct Take Avoidance Survey for Burrowing Owl, Implement Avoidance Measures, and Compensate for Loss of Occupied Burrows

- ▶ A qualified biologist shall conduct a focused survey for burrowing owls in accessible areas of habitat suitable for the species on and within 500 feet of the project site and off-site improvements no less than 14 days before initiating ground-disturbing activities using survey methods described in Appendix D of the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). Inaccessible areas (e.g., adjacent private property) will not be surveyed directly, but the biologist may use binoculars or a spotting scope to survey these areas.

- ▶ If no occupied burrows are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and El Dorado County, and no further mitigation shall be required.
- ▶ If an active burrow is found within 500 feet of pending construction activities that would occur during the nonbreeding season (September 1 through January 31; i.e., the only season where burrowing owls are expected to occur on the project site), the applicant shall establish and maintain a minimum protection buffer of 164 feet around the occupied burrow throughout construction. The actual buffer size shall be determined by the qualified biologist based on the time of year and level of disturbance in accordance with guidance provided in the CDFW Staff Report on Burrowing Owl Mitigation, and may be as large as 1,640 feet (CDFW 2012). The protection buffer may be adjusted if, in coordination with CDFW, a qualified biologist determines that an alternative buffer would not disturb burrowing owl use of the burrow because of particular site features or other buffering measures. If occupied burrows are present that cannot be avoided or adequately protected with a no-disturbance buffer, a burrowing owl exclusion plan shall be developed, as described in Appendix E of the CDFW Staff Report. Burrowing owls shall not be excluded from occupied burrows until the project burrowing owl exclusion plan is approved by CDFW. The exclusion plan shall include a compensatory habitat mitigation plan (see below).
- ▶ If burrowing owls are evicted from burrows and the burrows are destroyed by implementation of project activities, the applicant shall mitigate the loss of occupied habitat in accordance with guidance provided in the CDFW Staff Report, which states that permanent impacts on nesting, occupied and satellite burrows, and burrowing owl habitat (i.e., grassland habitat with suitable burrows) shall be mitigated such that habitat acreage and the number of burrows are replaced through permanent conservation of comparable or better habitat with similar vegetation communities and burrowing mammals (e.g., ground squirrels) present to provide for nesting, foraging, wintering, and dispersal. The applicant shall retain a qualified biologist to develop a burrowing owl mitigation and management plan that incorporates the following goals and standards:
 - Mitigation lands shall be selected based on comparison of the habitat lost to the compensatory habitat, including type and structure of habitat; disturbance levels; potential for conflicts with humans, pets, and other wildlife; density of burrowing owls; and relative importance of the habitat to the species throughout its range.
 - If feasible, mitigation lands shall be provided adjacent or proximate to the project site so that displaced owls can relocate with reduced risk of injury or mortality. The feasibility of providing mitigation adjacent or proximate to the project site depends on availability of sufficient habitat to support displaced owls that may be preserved in perpetuity.
 - If habitat suitable for burrowing owl is not available for conservation adjacent or proximate to the project site, mitigation lands can be secured off-site and shall aim to consolidate and enlarge conservation areas outside planned development areas and within foraging distance of other conservation lands. Mitigation may also be accomplished through purchase of mitigation credits at a CDFW-approved mitigation bank, if available. Alternative mitigation sites and acreages may also be determined in coordination with CDFW.
 - If burrowing owl habitat mitigation is completed through permittee-responsible conservation lands, the mitigation plan shall include mitigation objectives, site selection factors, site management roles and responsibilities, vegetation management goals, financial assurances and funding mechanisms, performance standards and success criteria, monitoring and reporting protocols, and adaptive management measures. Success shall be based on the number of adult burrowing owls and pairs using the site and whether the numbers are maintained over time. Measures of success, as suggested in the CDFW Staff Report, shall include site tenacity, the number of adult owls present and reproducing, colonization by burrowing owls from elsewhere, changes in distribution, and trends in stressors.

Documentation of compliance with this mitigation measure and the coordination process with CDFW shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2e would reduce the potential impact on burrowing owl to a **less-than-significant** level by requiring protocol-level surveys for the species, implementation of measures to avoid injury or mortality of burrowing owls and destruction of active burrows if they are detected, and compensation for loss of burrows. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

Special-Status Birds and Other Native Nesting Birds

Nine special-status bird species have potential to nest on or adjacent to the project site (i.e., the project site and off-site improvement areas): California black rail, golden eagle, grasshopper sparrow, loggerhead shrike, northern harrier, tricolored blackbird, white-tailed kite, yellow warbler, and yellow-breasted chat (Table 3.4-4). These species may nest in grassland, shrubs, and trees on the project site. Additionally, other raptor species (e.g., Cooper's hawk [*Accipiter cooperii*], red-tailed hawk [*Buteo jamaicensis*], red-shouldered hawk [*Buteo lineatus*]) and other native nesting birds could nest on the project site, and these species and their nests are protected under the California Fish and Game Code and MBTA. Project activities (i.e., vegetation clearing, ground disturbance, staging, heavy equipment use) may result in direct and indirect impacts on active nests if they are present. This impact would be **significant**. Bald eagles are not expected to nest on the project site, but may forage on the project site. Project implementation may result in temporary avoidance of the project site by foraging bald eagles; however, better quality foraging habitat is available nearby in Folsom Lake, which is more likely to be used by the species. Project implementation would not result in substantial loss or a substantial change in foraging habitat for bald eagles in the area surrounding the project site. Therefore, bald eagles are not discussed further.

Mitigation Measure

Mitigation Measure 3.4-2f: Conduct Focused Surveys for Special-Status Birds, Nesting Raptors, and Other Native Nesting Birds, and Implement Protective Buffers

- ▶ To minimize the potential for loss of special-status bird species, raptors, and other native birds, project activities (e.g., tree removal, vegetation clearing, ground disturbance, staging, construction of off-site improvements) shall be conducted during the nonbreeding season (approximately September 1 through January 31, as determined by a qualified biologist), if feasible. If project activities are conducted during the nonbreeding season, no further mitigation shall be required.
- ▶ Within 7 days before the onset of project activities during the breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys shall conduct focused surveys for special-status birds, other nesting raptors, and other native birds. Surveys shall be conducted in accessible areas within 1 mile of the project site for golden eagle, 0.25 mile of the project site for white-tailed kite, 500 feet of the project site for other raptor species and special-status birds, and 50 feet of the project site for non-raptor common native bird nests.
- ▶ If no active nests are found, the qualified biologist shall submit a report documenting the survey methods and results to the applicant and El Dorado County, and no further mitigation shall be required.
- ▶ If active nests are found, impacts on nesting birds shall be avoided by establishing appropriate buffers around active nest sites identified during focused surveys to prevent disturbance to the nest. Project activity shall not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer would not likely result in nest abandonment. Buffers typically shall be 1 mile for golden eagle, 0.25 mile for white-tailed kite, and 500 feet for other raptors. Buffer size for non-raptor bird species shall be determined by a qualified biologist. Factors to be considered for determining buffer size shall include presence of natural buffers provided by vegetation or topography, nest height above the ground, baseline levels of noise and human activity, species sensitivity, and proposed project activities. Generally, buffer size for these species shall be at least 500 feet for tricolored blackbird colonies, 100 feet for other special-status bird species, and at least 20 feet for common bird species. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment shall not be likely to adversely affect the nest. Any buffer reduction for a special-status bird species shall require coordination with CDFW. Daily monitoring of the nest by

a qualified biologist during project activities shall be required if the activity has potential to adversely affect the nest as determined by the qualified biologist, the buffer has been reduced, or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist.

Documentation of compliance with this mitigation measure and any required coordination with CDFW shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2e would reduce the potential impact on special-status birds, raptors, and other native nesting birds to a **less-than-significant** level by requiring focused surveys for the nesting birds and implementation of measures to avoid disturbance to, injury to, or mortality of the species if nests are detected. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

Crotch's Bumble Bee

Crotch's bumble bee has recently undergone a decline in abundance and distribution and is no longer present across much of its historic range. In California, the Crotch's bumble bee's range includes the Mediterranean region (ecoregion encompassing the greater Central Valley, Sierra foothills and central Coast Ranges of California south to Mexico), Pacific Coast, Great Valley, and adjacent foothills though most of southwestern California. The project site is within this range (CDFW 2023).

Although the life history characteristics of Crotch's bumble bees are not well understood, bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for queens. Bumble bees in general are capable of flying up to approximately 6 miles from the nest while foraging; however, most foraging activity is likely conducted much closer to the nest (Williams et al. 2014).

Known native floral resources for Crotch's bumble bee include milkweed (*Asclepias* spp.), lupine (*Lupinus* spp.), *Phacelia* spp., *Clarkia* spp., poppy (*Eschscholzia* spp.), sage (*Salvia* spp.), and buckwheat (*Eriogonum* spp.). Bumble bees are typically generalist foragers and are known to use other native and nonnative floral resources, such as vetch (*Vicia* spp.) and clover (*Trifolium* spp.) (Williams et al. 2014). These floral species are fairly common within grassland habitats in California. Grassland habitat on the project site is dominated by nonnative grasses and forbs and may include flowering plants that could be used by bumble bees for foraging. Vegetation removal activities will result in removal of this potential foraging habitat, and conversion of the habitat to urban uses.

Crotch's bumble bees are generally believed to overwinter near the ground surface in loose soil or under leaf litter or other debris (e.g., thatch and bunch grasses). Crotch's bumble bee nests typically occur in abandoned rodent burrows or other animal nests. Nesting and overwintering habitat potentially suitable for this species may be present on the project site within grassland, woodland, or riparian habitats. Vegetation removal and ground-disturbing activities could result in mortality of Crotch's bumble bees while they are foraging or within nesting or overwintering colonies (e.g., in underground rodent holes, loose soil, leaf litter, log/tree cavities, surface vegetation).

Although project implementation could result in loss of individual Crotch's bumble bees and loss of foraging and breeding habitat for the species, the lack of documented occurrences nearby suggests that it is unlikely that the project site supports a high concentration of bumble bee colonies, and project implementation is not expected to result in loss of a significant number of bumble bees if they are present. However, the population status of this species is poorly understood, and loss of a colony could have a substantial effect on the population. Project activities that could result in loss (i.e., take) of Crotch's bumble bees include ground disturbance and vegetation removal within natural habitats in the project area and off-site improvement areas. Loss of Crotch's bumble bees would be a **significant** impact.

Mitigation Measure

Mitigation Measure 3.4-2g: Implement Limited Operating Period, Conduct Focused Surveys, and Implement Avoidance Measures for Crotch's Bumble Bee

- ▶ Initial ground-disturbing work (e.g., grading, vegetation removal, staging, construction of off-site improvements) shall take place between August 15 and March 15, if feasible, to avoid impacts on nesting Crotch's bumble bees.
- ▶ Regardless of the feasibility of the above limited operating period, a qualified biologist familiar with bumble bees of California and experienced using survey methods for bumble bees shall conduct a habitat assessment and focused survey for Crotch's bumble bee before the start of any ground-disturbing activities. Surveys shall be performed when Crotch's bumble bee is most likely to be identified, typically from April through August (i.e., the colony active period) when floral resources and ideal weather conditions are present, and shall follow the methods in *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023). Surveys shall be conducted during the colony active period closest to the start of planned construction activities. Survey results shall be submitted to the applicant and El Dorado County no less than 7 days before construction begins.
- ▶ The applicant shall submit a survey report to CDFW within 1 month of survey completion and shall notify CDFW and El Dorado County within 24 hours if Crotch's bumble bees are detected.
- ▶ If Crotch's bumble bees are detected during the focused survey, appropriate avoidance measures shall be implemented. Avoidance measures shall include, but not be limited to, the following:
 - Protective buffers shall be implemented around active nesting colonies or overwintering queens until these sites are no longer active. A qualified biologist, in coordination with CDFW, shall determine the appropriate buffer size to protect nesting colonies or overwintering queens; however, the buffer shall be a minimum of 50 feet.

If impacts on Crotch's bumble bee cannot be avoided, the applicant shall obtain an incidental take permit (ITP) from CDFW and shall implement all avoidance measures included in the ITP.

Documentation of compliance with this mitigation measure and any required coordination with CDFW or acquisition of an ITP shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2g would reduce the potential impact on Crotch's bumble bee to a **less-than-significant** level by conducting initial ground disturbance work from August 15 to March 15, if feasible, focused surveys for bumble bees, and implementation of measures to avoid mortality of the Crotch's bumble bees if nests or overwintering queens are detected. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

Monarch

Narrowleaf milkweed is present on the project site within the valley needlegrass grassland habitat (Madrone Ecological Consulting 2024a; Appendix C). Milkweed plants on the project site may provide monarch breeding habitat, and other floral resources on the project site may provide foraging habitat for the species. Milkweed plants were not observed in the off-site improvement areas, and these areas are not expected to support breeding monarchs. Monarch butterflies could be adversely affected if construction activity results in the removal of milkweed plants that are actively supporting monarch eggs or caterpillars at the time of removal. Loss of monarch eggs or caterpillars would be a **significant** impact.

Mitigation Measure

Mitigation Measure 3.4-2h: Conduct Surveys for Milkweed Plants, Monarch Eggs, and Monarch Caterpillars, and Implement Avoidance Measures

- ▶ If construction activities (e.g., ground disturbance, vegetation removal, staging) on the project site occur during the period when milkweed plants may host monarch eggs or caterpillars (approximately mid-March through late September) a qualified biologist shall survey the project site for milkweed plants. If milkweed plants are found, a qualified biologist shall inspect the milkweed plants for the presence of monarch eggs or caterpillars no more than 14 days before plant removal. If monarch eggs or caterpillars are detected, the milkweed plants shall be avoided until they are no longer being used by monarch caterpillars, as confirmed by a qualified biologist, if feasible. If no eggs or caterpillars are detected, no additional protection measures are necessary.

Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2h would reduce the potential impact on monarch to a **less-than-significant** level by requiring focused surveys for milkweed host plants and implementation of measures to avoid loss of monarch eggs or caterpillars if they are detected through avoidance of the plants. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

American Badger

Grassland habitat on the project site may provide habitat suitable for American badger. Badgers are not expected to occur in the off-site improvement areas, as these areas do not provide large enough areas of natural habitat suitable for the species. Project activities (i.e., vegetation clearing, ground disturbance, staging, heavy equipment use) may result in direct loss of American badgers or active badger dens if they are present on the project site. This impact would be **significant**.

Mitigation Measure

Mitigation Measure 3.4-2i: Conduct Focused American Badger Surveys, and Establish Protective Buffers

- ▶ Within 14 days before commencement of project activities, a qualified wildlife biologist familiar with American badger and experienced using survey methods for the species shall conduct focused surveys of habitat suitable for the species on the project site to identify any American badger dens.
- ▶ If occupied dens are not found, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County, and further mitigation shall not be required.
- ▶ If occupied dens are found, impacts on active badger dens shall be avoided by establishing exclusion zones around all active badger dens, the size of which shall be determined by the qualified biologist, but shall be a minimum of 100 feet. No project activities (e.g., vegetation removal, ground disturbance, staging) shall occur within the exclusion zone until denning activities are complete or the den is abandoned, as confirmed by a qualified biologist. The qualified biologist shall monitor each den once per week to track the status of the den and to determine when it is no longer occupied. When it is no longer occupied, project activities within the exclusion zone may occur.

Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2i would reduce the potential impact on American badger to a **less-than-significant** level by requiring focused surveys for the species and implementation of measures to avoid injury or mortality of American badger and destruction of active dens if they are detected. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

Special-Status Bats

Three special-status bat species have potential to occur on the project site: pallid bat, Townsend's big-eared bat, and western red bat. Roosting habitat potentially suitable for these species on the project site is present within large oak and eucalyptus trees on the main project site and off-site improvement areas (i.e., crevices, cavities, exfoliating bark, foliage) and abandoned buildings on the main project site. Project activities (i.e., tree removal, building removal) may result in direct loss of roosting special-status bats if they are present on the project site. This impact would be **significant**.

Mitigation Measure

Mitigation Measure 3.4-2j: Conduct Focused Bat Surveys, and Implement Avoidance Measures

- ▶ Within 14 days before any tree removal or removal of abandoned buildings, a qualified biologist familiar with bats and bat ecology, and experienced in conducting bat surveys, shall conduct surveys for bat roosts in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, foliage, buildings) on and adjacent to the project site.
- ▶ If no evidence of bat roosts is found, the qualified biologist shall submit a report summarizing the results of the survey to the applicant and El Dorado County, and no further study shall be required.
- ▶ If evidence of bat maternity roosts or hibernacula is observed, the species and number of bats using the roost shall be determined by a qualified biologist using noninvasive methods. Bat detectors (i.e., acoustic monitoring) or evening emergence surveys shall be used if deemed necessary to supplement survey efforts by the qualified biologist.
- ▶ A no-disturbance buffer of 250 feet shall be established around active pallid bat, Townsend's big-eared bat, or western red bat maternity roosts or hibernacula, as well as substantial maternity roosts or hibernacula of other bat species considered to be a wildlife nursery by the qualified biologist, and project activities shall not occur within this buffer until after the roosts are unoccupied as determined by a qualified biologist.
- ▶ If roosts of pallid bat, Townsend's big-eared bat, or western red bat are determined to be present and must be removed, the bats shall be excluded from the roosting site before the tree is removed. A program addressing compensation, exclusion methods, and roost removal procedures shall be developed in coordination with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) resulting from the project shall be replaced in coordination with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during coordination with CDFW, replacement roosts shall be implemented before bats are excluded from the original roost sites. After the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site by a qualified biologist, the roost tree or building may be removed. For roost trees, a two-step tree removal process supervised by a qualified biologist shall be implemented, including removal of all branches that do not provide roosting habitat on the first day, and removal of the remaining portion of the tree on the following day.

Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2j would reduce the potential impact on pallid bat, Townsend's big-eared bat, and western red bat to **less than significant** by requiring focused surveys for bat roosts, implementation of no-disturbance buffers around active special-status bat maternity roosts or hibernacula, or implementation of an exclusion plan approved by CDFW that would potentially include construction of replacement roosts. Application of this mitigation measure to the project would be consistent with General Plan Policy 7.4.2.8.

Impact 3.4-3: Result in Degradation or Loss of Riparian Habitat or Other Sensitive Natural Communities

Project implementation would result in ground disturbance, vegetation removal, and land development, which also would result in removal of riparian habitat and sensitive natural communities. This impact would be **significant**.

Approximately 0.013 acre of valley needlegrass grassland (also known as Needle grass – Melic grass grassland) is present on the project site and 0.1 acre of Fremont cottonwood riparian woodland habitat is present in the northernmost off-site improvement area (Figure 3.4-1, Table 3.4-2). Additionally, a small component of the oak woodland habitat along a seasonal wetland swale immediately south of Verde Valle Lane is riparian in nature (Figure 3.4-1). The riparian oak woodland south of Verde Valle Lane would not be affected by project implementation. However, project activities include ground disturbance, vegetation removal, and land development, which would result in removal of all valley needlegrass grassland and Fremont cottonwood riparian woodland on the project site. This impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.4-3a: Compensate for Loss of Valley Needlegrass Grassland

The following measures shall be implemented before vegetation removal or ground-disturbing activities:

- ▶ The applicant shall compensate for unavoidable loss of valley needlegrass grassland on the project site such that no net loss of habitat function occurs by:
 - restoring degraded valley needlegrass grassland outside the project site or on the project site at a ratio sufficient to offset the loss of habitat function (at least 1:1) or
 - preserving existing valley needlegrass grassland of equal or better value to the sensitive natural community affected through a conservation easement at a ratio sufficient to offset the loss of habitat function (at least 1:1).
- ▶ Prepare and implement a Compensatory Mitigation Plan that includes the following elements:
 - For preserving existing habitat outside the project site in perpetuity, the Compensatory Mitigation Plan shall include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The applicant shall provide evidence in the plan that the necessary mitigation has been implemented or that the applicant has entered into a legal agreement to implement it and that compensatory habitat shall be preserved in perpetuity.
 - For restoring or enhancing habitat outside the project site, the Compensatory Mitigation Plan shall include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function (below) has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.
 - The following success criteria shall be required to maintain habitat function for preserved and compensatory populations:
 - The extent of occupied area and density of plants associated with the sensitive natural community (number of plants per unit area) in compensatory habitats shall be equal to or greater than the affected occupied habitat.
 - Compensatory and preserved sensitive natural communities shall be self-producing. Populations would be considered self-producing when:
 - plants associated with sensitive natural communities reestablish annually for a minimum of 5 years with no human intervention, such as supplemental seeding, and

- reestablished and preserved habitats contain an occupied area and density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.

Documentation of compliance with this mitigation measure shall be provided to El Dorado County before commencement of any project construction activities.

Mitigation Measure 3.4-3b: Compensate for Loss of Riparian Habitat

The following measures shall be implemented before vegetation removal or ground-disturbing activities within the Fremont cottonwood riparian habitat in the off-site improvement area:

- ▶ A Streambed Alteration Notification shall be submitted to CDFW, pursuant to Section 1602 of the California Fish and Game Code. If proposed project activities are determined to be subject to CDFW jurisdiction, the applicant shall abide by the measures to protect fish and wildlife resources required by any executed agreement before any vegetation removal or activity that may affect the resource. Measures to protect fish and wildlife resources shall include, at a minimum, a combination of the following mitigation.
 - ▶ The applicant shall compensate for the loss of Fremont cottonwood riparian woodland habitat such that no net loss of habitat function and values occurs by:
 - Restoring and preserving degraded riparian habitat outside the project site or on the project site (at least 1:1);
 - purchasing riparian habitat credits at a CDFW-approved mitigation bank (at least 1:1); or
 - preserving existing riparian habitat of equal or better value to the affected riparian habitat through a conservation easement at a ratio sufficient to offset the loss of riparian habitat function (at least 1:1).
 - ▶ The applicant shall prepare and implement a Compensatory Mitigation Plan that includes the following elements:
 - For preserving existing riparian habitat outside the project site in perpetuity, the Compensatory Mitigation Plan shall include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title). The applicant shall provide evidence in the plan that the necessary mitigation has been implemented or that the applicant has entered into a legal agreement to implement it and that compensatory habitat shall be preserved in perpetuity.
 - For restoring or enhancing riparian habitat outside the project site, the Compensatory Mitigation Plan shall, at a minimum, include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.
 - Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by the applicant (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.

Documentation of compliance with this mitigation measure and receipt of a Lake and Streambed Alteration Agreement from CDFW (or a letter from CDFW stating that such an Agreement is not required) shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measures 3.4-3a and 3.4-3b would reduce significant impacts on sensitive natural communities and riparian habitat to a **less-than-significant** level by requiring compensation for permanent loss of these habitats such that there is no net loss, potentially including a Streambed Alteration Agreement with CDFW. Application of these mitigation measures to the project would be consistent with General Plan Objective 7.3.3 and associated Policy 7.3.3.2, Objective 7.3.4 and associated Policies 7.3.4.1 and 7.3.4.2, and Objective 7.4.2 and associated Policy 7.4.2.8.

Impact 3.4-4: Result in Degradation or Loss of State or Federally Protected Wetlands

Project implementation would result in ground disturbance, vegetation removal, and land development, which would result in removal (fill) of state and federally protected wetlands. This impact would be **significant**.

Aquatic resources delineations of the project site were conducted on April 26, 2021; May 7, 2021; May 24, 2021; June 9, 2021; and January 5, 2024 (Madrone Ecological Consulting 2024a; Appendix C). A request for a Preliminary Jurisdictional Determination and an Approved Jurisdictional Determination of the resulting aquatic resources delineation map was submitted to USACE in August 2022, and an updated request for an Approved Jurisdictional Determination was submitted in April 2024 to address the revised definition of waters of the United States. The updated request included the delineation of aquatic resources in a portion of the off-site improvement areas conducted in 2024 (i.e., not including the offsite improvement areas along Silva Valley Parkway). Many of the aquatic features (i.e., ponds, seasonal wetland swales, intermittent drainages, seeps,) on the project site are expected to meet the federal definitions of waters of the United States and most of the aquatic features are expected to meet the definition of waters of the state (Madrone Ecological Consulting 2022c). Approximately 0.02 acre of roadside ditches is constructed in uplands along Green Valley Road and currently drain only uplands. These features do not appear to be rerouted stream channels and are likely excluded from USACE jurisdiction. All delineated aquatic resources on the project site are expected to be considered waters of the state, and would be subject to regulation by the Central Valley RWQCB and CDFW.

A total of 7.5 acres of wetlands and other waters were delineated on the project site (Table 3.4-3, Figure 3.4-1, and Figure 3.4-2). Approximately 2.3 acres of wetlands and other waters on the main project site would be adversely affected by project implementation (i.e., through direct fill or removal), including 0.05 acre of intermittent drainage, 2.25 acres of ponds, and less than 0.01 acre of roadside ditches (Madrone Environmental Consulting 2024a). Because the extent of impact in the off-site improvement areas is unknown at this time, impacts on wetlands associated with work in those areas cannot be estimated with certainty; however, a maximum of 0.31 acre of wetlands and other waters could be affected, including 0.07 acre of seasonal wetland swale, 0.09 acre of intermittent drainage, 0.01 acre of ephemeral drainage, and 0.14 acre of roadside and wetland ditches (Madrone Environmental Consulting 2024a and 2024d). Additionally, project implementation includes crossing Green Spring Creek in two locations and resultant impacts on the ponds on the project site. Fill or removal of state and federally protected wetlands would be a **significant** impact.

Mitigation Measures

Mitigation Measure 3.4-4: Obtain Permits for Impacts on Wetlands

- ▶ Authorization for fill of waters of the United States shall be secured from USACE and the RWQCB through the permitting processes for Clean Water Act Sections 401 and 404. In association with Section 404 and before the issuance of any grading permit, Section 401 Water Quality Certification from the Central Valley RWQCB shall be obtained. For impacts on waters of the state that are not also waters of the United States and are therefore not covered by the 401 Water Quality Certification, the applicant shall apply to the RWQCB for Waste Discharge Requirements following the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Water Resources Control Board 2021). Any waters of the United States or waters of the state that are affected by the project shall be replaced on a no-net-loss basis in accordance with the applicable USACE and State Water Resources Control Board mitigation standards in place at the time of construction.
- ▶ Before commencing activity that may divert the natural flow or otherwise alter the bed or bank of any lake or stream on the project site or off-site improvement areas (e.g., Green Spring Creek), the applicant shall notify CDFW, through issuance of a Lake and Streambed Alteration Notification (notification). If CDFW determines, based on the notification, that project activities trigger the need for a Lake and Streambed Alteration Agreement, the project applicant shall obtain an agreement from CDFW before the activity commences. The applicant shall conduct project construction activities in accordance with the agreement, including implementing reasonable measures in the agreement necessary to protect fish and wildlife resources, when working within the bed or bank

of waterways or in riparian habitats associated with those waterways. These measures may include, but not be limited to, demarcation of the construction area, biological monitoring, environmental awareness training for construction crews, and compensatory measures (e.g., restoration, long-term habitat management).

Documentation of compliance with this mitigation measure and receipt of a Lake and Streambed Alteration Agreement from CDFW, as well as wetland permitting from USACE, shall be provided to El Dorado County before commencement of any project construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-4 would reduce significant impacts on state and federally protected wetlands to a **less-than-significant** level by requiring permitting and compensation for unavoidable impacts on state or federally protected wetlands such that there is no net loss of these resources. Application of this mitigation measure to the project would be consistent with General Plan Objective 7.3.3 and associated Policies 7.3.3.1 and 7.3.3.2, Objective 7.3.4 and associated Policies 7.3.4.1 and 7.3.4.2, and Objective 7.4.2 and associated Policy 7.4.2.8.

Impact 3.4-5: Interfere with Wildlife Movement Corridors or Impede the Use of Wildlife Nurseries

Development of the project site would result in removal of natural habitat that has been identified as an ECA. Natural habitat on the project site may also provide roosting habitat for common bat species (i.e., in large oak trees). The project site likely does not function as a critical wildlife movement corridor, and the most significant feature contributing to habitat connectivity, Green Spring Creek, would be largely incorporated into open space areas and potentially restored after removal of human-made instream ponds. Impacts on bat roosts shall be addressed through mitigation described for impact 3.4-2. Therefore, the impact related to wildlife movement corridors and wildlife nurseries would be **less than significant**.

The project site is located in a modeled ECA that connects natural landscape blocks to the south to undeveloped areas north of the project site (Figure 3.4-3). The project site is surrounded by dense residential development to the west and south and less dense rural residences and open space areas to the north and east. Although partially surrounded by development, the project site contains natural habitat and may provide wildlife nursery habitat and function as a movement corridor for some wildlife species. However, the dense residential development surrounding the project site makes it unlikely that the project site functions as a critical habitat linkage for wildlife.

The most significant feature contributing to habitat connectivity and potential wildlife movement on the project site is Green Spring Creek. The most permeable portion of the modeled ECA (i.e., the portion most likely to function as a wildlife movement corridor) that includes the project site is west of the project site, roughly following the New York Creek drainage to Folsom Lake (Figure 3.4-3). Green Spring Creek is hydrologically connected to other streams near the project site, including New York Creek and eventually Folsom Lake, which likely provides connectivity for some wildlife species. Project activities would result in temporary disturbance to Green Spring Creek; however, the creek would be restored to its approximate natural state, which may improve the connectivity of the creek for wildlife movement. Additionally, the creek would largely be within a designated open space area after project development, further maintaining the integrity of this corridor. As a result, impacts on wildlife movement would be less than significant.

The oak woodland and riparian habitats on the project site may provide roosting habitat potentially suitable for common bat species. As discussed above for Impact 3.4-2, although implementation of the project may affect special-status birds and bats, mitigation measures, including preconstruction surveys and avoidance of active bird nests and bat roosts, shall be implemented to reduce impacts to less than significant. Implementation of these mitigation measures also would result in protection of active bat roosts considered to be nursery sites. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.4-6: Conflict with Local Policies and Ordinances

Project implementation would result in removal of oak trees and oak woodlands and development in a rare plant mitigation area established by the County, which could result in conflict with the El Dorado County ORMP. This impact would be **significant**.

The El Dorado County General Plan includes policies intended to protect aquatic habitat (e.g., wetlands), special-status species, and sensitive habitats (see Section 3.4.1, "Regulatory Setting"). Wetlands, riparian habitat, and valley oak woodlands are present on the project site, and special-status species occur or have potential to occur on the site. As discussed above for Impacts 3.4-1, 3.4-2, 3.4-3, and 3.4-4, although implementation of the project may affect special-status plants, special-status wildlife, sensitive natural communities, riparian habitat, and wetlands, mitigation measures shall be implemented to reduce impacts to less than significant. Therefore, there would be no conflict with General Plan policies protecting these resources.

The El Dorado County ORMP defines mitigation requirements for impacts on oak woodlands, individual native oak trees, and heritage trees and outlines El Dorado County's strategy for oak resource management and conservation (see Section 3.4.1, "Regulatory Setting"). Oak trees on the project site were surveyed in February and March 2021 and January, February, and April 2024 (California Tree and Landscape Consulting 2024a, 2024b). A total of 110.9 acres of oak woodlands were identified on the project site, and approximately 56 acres of this habitat may be adversely affected as a result of project implementation and off-site improvements (California Tree and Landscape Consulting 2024a and 2024b). A total of 28 individual oak trees (657 inches total diameter) and 13 heritage trees (572 inches total diameter) are proposed to be removed (California Tree and Landscape Consulting 2024a, 2024b).

Proposed vegetation fuel modifications for community owned land areas are identified in the proposed Generations at Green Valley Wildland Urban Interface Fire Protection Plan (Appendix J). The proposed fuel modification treatments would reduce the fire potential on the project site while retaining the approximate oak woodland canopy cover without removing large trees (i.e., native oak trees, heritage trees) (California Tree and Landscape Consulting 2024a). The pruning and low clearance required for the treatments would result in minimal impacts on the overall oak woodland canopy cover and would not change the oak woodland acreage as the trees are retained on site (California Tree and Landscape Consulting 2024a).

Project implementation would result in removal of oak woodlands and protected oak trees on the project site, which may conflict with tree protection requirements in the El Dorado County ORMP. The project site is located at least partially within a Rare Plant Mitigation Area defined as Mitigation Area 1 under the El Dorado County Preserves Ordinance and has potential to result in impacts on rare plants. This impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.4-6a: Compensate for Removal of Protected Oak Trees and Oak Woodlands Consistent with the El Dorado County ORMP

Before removing oak trees or oak woodlands on the project site, the applicant shall implement the following measures:

- ▶ The applicant shall submit a final version of the Oak Resources Technical Report and an Oak Resources Code Compliance Certificate to the El Dorado County Community Development Services Planning and Building Department that address all on-site and off-site oak tree and oak woodland impacts.
 - The Oak Woodland Mitigation Ratio shall be determined by the amount of existing Oak Woodland canopy being adversely affected. The proposed oak impact on the main project site of 54.5 acres is 49.8 percent of the oak woodlands present on the main project site. Because the extent of impact in the off-site improvement areas is unknown at this time, impacts on oak woodlands associated with work in those areas cannot be estimated with certainty, and it is assumed that 100 percent of the oak woodlands in these areas may be removed. Therefore, pursuant to the ORMP, the ratio for oak mitigation would be 1.5:1. The total

mitigation requirement shall be 84.0 acres, unless the total impacts on oak woodlands in the off-site improvement area is less than 100 percent.

- ▶ Upon application approval, the applicant shall compensate for loss of protected oak trees and oak woodlands through any combination of in-lieu fees, conservation, and/or replanting, as required under the ORMP, to the satisfaction of the El Dorado County Community Development Department.

Mitigation Measure 3.4-6b: Compensate for Impacts through In-Lieu Rare Plant Mitigation Fee Payment Consistent with the El Dorado County Code

Before issuance of a building permit, the project applicant shall pay the current Rare Plant Mitigation Fee for the portions of the project area within Mitigation Area 1. This fee is currently \$885 per dwelling unit equivalent, but the fee may change before building permit application.

Significance after Mitigation

Implementation of Mitigation Measures 3.4-6a and 3.4-6b would reduce significant impacts related to compliance with local ordinances to a **less-than-significant** level by requiring compensation for removal of oak trees and oak woodlands consistent with the El Dorado County ORMP and compensation for development within a Rare Plant Mitigation Area consistent with the El Dorado County Code of Ordinances.

3.5 ENERGY

This section was prepared pursuant to CEQA Guidelines Section 15126 and Appendix F of the CEQA guidelines, which require that EIRs include a discussion of the potential energy impacts of projects. The analysis considers whether the project would result in inefficient, wasteful, and unnecessary consumption of energy or conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

A comment was received from Pacific Gas and Electric (PG&E) in response to the NOP. This comment provided information on project plans related to natural gas and electric facilities.

3.5.1 Regulatory Setting

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

FEDERAL

Energy Policy and Conservation Act, and IE Standards

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

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturers' compliance with the government's fuel economy standards. Compliance with the CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the country. The US Environmental Protection Agency calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. Based on information generated under the CAFE program, DOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 1992 and 2005

The Energy Policy Act (EPA) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPA includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas¹. EPA requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPA. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The EPA of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

¹ The term "centrally fueled" means that a vehicle is fueled at least 75% of the time at a location that is owned, operated, or controlled by the fleet or covered person, or is under contract with the fleet or covered person for refueling purposes (DOE n.d.).

STATE

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The act established state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission regulates privately owned utilities in the energy, rail, telecommunications, and water fields.

State of California Energy Action Plan

The CEC is responsible for preparing the state energy plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The 2003 California Energy Action Plan (2008 update) is the current plan. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs; and encouragement of urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and CARB prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003). A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand by 2030.

Integrated Energy Policy Report

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

CEC adopts an IEPR every 2 years and an update every other year. The 2023 IEPR is the most recent IEPR, including the 2024 Update to the 2023 IEPR. The 2023 IEPR provides a summary of priority energy issues currently facing the State, outlining strategies and recommendations to further the State’s goal of ensuring reliable, affordable, and environmentally responsible energy sources. The report contains an assessment of major energy trends and issues within California’s electricity, natural gas, and transportation fuel sectors. The report provides policy recommendations to conserve resources, protect the environment, ensure reliable, secure, and diverse energy supplies, enhance the state’s economy, and protect public health and safety. Topics covered in the 2023 IEPR include the accelerated connection of clean energy, the California Energy Demand Forecast, the potential growth of hydrogen in the State, and updates to issue such as energy efficiency, gas utility decarbonization, and the Clean Transportation Program (CEC 2024).

Renewables Portfolio Standard

The State passed legislation referred to as the Renewables Portfolio Standard (RPS) that requires increasing use of renewable energy to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018). On September 16, 2022, SB 1020 was signed into law. This bill supersedes the goals of SB 100 by requiring that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95

by December 31, 2040, 100 by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035.

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

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030. It also establishes energy efficiency targets that achieve statewide, cumulative doubling of the energy efficiency savings in electricity and natural gas end uses by the end of 2030.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan in partnership with the California Air Resources Board (CARB) and in consultation with other state, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of alternative nonpetroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce greenhouse gas (GHG) emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

California Building Energy Efficiency Standards (Title 24, Part 6, and Part 11)

The energy consumption of new residential and nonresidential buildings in California is regulated by the State's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar photovoltaic (PV) on new homes, providing significant GHG savings. The most recent is the 2022 California Energy Code advances the onsite energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar PV system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. The CEC estimates that the 2022 California Energy Code will save consumers \$1.5 billion and reduce GHGs by 10 million metric tons (MMT) of carbon dioxide-equivalent (CO₂e) over the next 30 years (CEC 2022a).

CalGreen was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The current version is the 2022 CalGreen Code, which took effect on January 1, 2023. As compared to the 2019 CalGreen Code, the 2022 CalGreen Code strengthened sections pertaining to EV and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CalGreen Code. The CalGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and are used as guidelines by State agencies for meeting the requirements of EO B-18-12.

AB 1279 and 2022 Scoping Plan for Achieving Carbon Neutrality

On September 16, 2022, the State legislature passed AB 1279 which codified stringent emissions targets for the State of achieving carbon neutrality and an 85 percent reduction in 1990 emissions level by 2045. CARB released the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on November 16, 2022, as also directed by AB 1279 (CARB 2022a). The 2022 Scoping Plan traces the pathway for the State to achieve its carbon neutrality goal and an 85 percent reduction in 1990 emissions goal by 2045. CARB adopted the 2022 Scoping Plan on December 16, 2022.

Senate Bill 375 of 2008

SB 375, signed into law in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. It requires metropolitan planning organizations (MPOs) to

adopt a Sustainable Communities Strategy or Alternative Planning Strategy, showing prescribed land use allocation in each MPO's Regional Transportation Plan. CARB, in consultation with the MPOs, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks for 2020 and 2035. Implementation of SB 375 has the co-benefit of reducing California's dependency on fossil fuels and making land use development and transportation systems more energy efficient.

California Energy Efficiency Action Plan

The 2019 California Energy Efficiency Action Plan has three primary goals for the State: double energy efficiency savings by 2030 relative to a 2015 base year (per SB 350), expand energy efficiency in low-income and disadvantaged communities, and reduce GHG emissions from buildings. This plan provides guiding principles and recommendations related to how the State would achieve those goals. These recommendations include:

- ▶ identifying funding sources that support energy efficiency programs,
- ▶ identifying opportunities to improve energy efficiency through data analysis,
- ▶ using program designs as a way to encourage increased energy efficiency on the consumer end,
- ▶ improving energy efficiency through workforce education and training, and
- ▶ supporting rulemaking and programs that incorporate energy demand flexibility and building decarbonization (CEC 2019).

Title 20

CEC first developed the Appliance Energy Efficiency Standards (Title 20) in 1977. These standards apply to appliances sold in California and include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficiency appliances. Once these standards are adopted, the CEC informs stakeholders and manufacturers of the final appliance efficiency testing requirements, certification instructions, and procedures to comply with the standards.

To be sold or offered for sale in California it is the responsibility of appliance manufacturers selling their products to test them at CEC-approved laboratories and receive third-party certification. Once certified, manufacturers are required to submit their documentation and data to the CEC to be uploaded into the agency's online Modernized Appliance Efficiency Database System (MAEDbS). A regulated appliance that is not certified cannot be legally sold or offered for sale in the state of California (CEC 2024).

Assembly Bill 1493

AB 1493 was adopted on July 22, 2002 and serves the purpose of limiting GHG emissions from passenger vehicles. As part of this effort, AB 1493 also includes requirements for improving energy efficiency and utilizing renewable energy to help achieve emissions reductions targets. This includes designing and implementing organization-specific plans that improve energy efficiency or utilize renewable energy, or both, and that are capable of achieving emission reduction targets. Additionally, it is encouraged that organizations from various sectors of the state's economy, and those from various geographic regions of the state, report emissions, establish baselines and reduction targets, and implement efficiency improvement and renewable energy programs to achieve those targets.

Regulations Addressing Diesel Equipment

CARB promulgates emission standards for off-road diesel construction equipment of greater than 25 hp such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007, aims to reduce emissions through the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models (Title 13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets. Current rulemaking of this regulation anticipated to be finalized in 2023 includes additional updates to ensure fleet compliance by requiring public agencies and prime contractors to verify compliance with these fleet requirements

annually and to report non-compliant fleets. In addition, starting in 2024, fleets will be required to use 99 or 100 percent renewable diesel. The latest amendments were approved by CARB in 2022 (CARB 2022b).

In 2004, CARB adopted regulations requiring on-board diagnostic (OBD) systems on all 2007 and later model year heavy-duty engines and vehicles (i.e., vehicles with a gross vehicle weight rating greater than 14,000 pounds) in California. CARB subsequently adopted a comprehensive OBD regulation for heavy-duty vehicles model years 2010 and beyond. The heavy-duty OBD regulations were updated in 2010, 2013, and 2016 with revisions to enforcement requirements, testing requirements, and implementation schedules. Heavy-duty trucks used during Project construction or operations would be required to comply with the heavy-duty OBD regulatory requirements (CARB 2019).

The California Standards for Diesel Fuel Regulations require diesel fuel with a sulfur content of 15 parts per million (ppm) or less (by weight) to be used for all diesel-fueled vehicles that are operated in California. The standard also applies to non-vehicular diesel fuel, other than diesel fuel used solely in locomotives or marine vessels. The regulations also contain standards for the aromatic hydrocarbon content and lubricity of diesel fuels (CARB 2014). These regulations, while intended to address emissions from diesel engines, provide the co-benefit of energy savings in the form of conserving diesel fuel by ensuring that diesel equipment is as efficient as possible.

LOCAL

El Dorado County General Plan

The El Dorado County General Plan includes the following objective and policies applicable to the energy efficiency of new development and reducing community-wide energy consumption in El Dorado County:

- ▶ **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.

3.5.2 Environmental Setting

PHYSICAL SETTING

Energy Facilities and Services in the Project Area

Electric and natural gas services in the County of El Dorado is provided by the Pacific Gas and Electric Company (PG&E). Also providing utility service to El Dorado County is Pioneer Community Energy, which is a Community Choice Aggregator (CCA) that began service in 2018. CCAs are voluntary programs that community members may enroll in that aim to lower power costs by aggregating the buying power of individual customers within a defined jurisdiction to secure alternative energy supply contracts. Table 3.5-1 below summarizes PG&E's power content label for 2022. Table 3.5-2 summarizes Pioneer Community Energy's power content label for 2022.

Table 3.5-1 Pacific Gas and Electric Power Content Label (2022)

Energy Resource	Percent of Total
Eligible Renewable (biomass and biowaste, geothermal, eligible hydroelectric, solar, and wind)	38
Coal	0
Large hydroelectric	8
Natural Gas	5
Nuclear	49
Other	0
Unspecified Power ¹	0
Total	100

¹ Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

Source: PG&E 2023.

Table 3.5-2 Pioneer Community Energy Power Content Label (2022)

Energy Resource	Percent of Total
Eligible Renewable (biomass and biowaste, geothermal, eligible hydroelectric, solar, and wind)	44
Coal	0
Large hydroelectric	1
Natural Gas	0
Nuclear	28
Other	0
Unspecified Power ¹	27
Total	100

¹ Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

Source: CEC 2023a.

Energy Types and Sources

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California is natural gas. In 2021, approximately 38 percent of natural gas consumed in the State was used to generate electricity. Large hydroelectric powered approximately 9 percent of electricity and renewable energy from solar, wind, small hydroelectric, geothermal, and biomass combustion totaled 34 percent (EIA 2023).

Alternative Fuels

A variety of alternative fuels are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, AB 32 Scoping Plan). Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many transportation fuels, including:

- ▶ biodiesel,
- ▶ electricity,
- ▶ ethanol (E-10 and E-85),
- ▶ hydrogen,
- ▶ natural gas (methane in the form of compressed and liquefied natural gas),

- ▶ propane,
- ▶ renewable diesel (including biomass-to-liquid),
- ▶ synthetic fuels, and
- ▶ gas-to-liquid and coal-to-liquid fuels.

California has a growing number of alternative fuel vehicles through the joint efforts of CEC, CARB, local air districts, federal government, transit agencies, utilities, and other public and private entities. As of December 2023, California contained over 50,335 alternative fueling stations (AFDC 2023).

ENERGY USE FOR TRANSPORTATION

In 2021, the transportation sector comprised the largest end-use sector of energy in the State totaling 37.8 percent, followed by the industrial sector totaling 23.2 percent, the residential sector at 20.0 percent, and the commercial sector at 19.0 percent (EIA 2023). On-road vehicle use comprises about 90 percent of the petroleum consumed in California. CEC reported retail sales of 66 million and 12 million gallons of gasoline and diesel, respectively, in El Dorado County in 2022 (the most recent data available) (CEC 2023b).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth's temperature. For an analysis of greenhouse gas production and the project's impacts on climate change, refer to Section 3.7, "Greenhouse Gas Emissions and Climate Change."

3.5.3 Impacts and Mitigation Measures

METHODOLOGY

Appendix G of the State CEQA Guidelines requires the consideration of the energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision (b)(3)). Neither the law nor the State CEQA Guidelines establish criteria that define wasteful, inefficient, or unnecessary use. Therefore, impacts related to energy are addressed qualitatively. Estimations of energy consumption are provided for informational purposes. Each impact area was analyzed in the context of existing laws and regulations and the extent to which these existing laws and regulations adequately address and minimize the potential for impacts associated with project implementation.

Fuel consumption for mobile construction and operational sources was estimated using the California Emissions Estimator Model (CalEEMod), Version 2022.1.1.21 (see Appendix B), and is provided for informational purposes. Building energy consumption (electricity and natural gas), area, landscaping, and water sectors were also estimated using CalEEMod defaults and are included for informational purposes as well. Annual VMT and vehicle trip data were provided in the VMT analysis prepared for the project by Kimley-Horn (Kimley-Horn 2023).

THRESHOLDS OF SIGNIFICANCE

The following significance criteria are based on CEQA Guidelines Appendix F (energy), under which implementation of the project would have a potentially significant adverse impact if the project would:

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

ISSUES NOT DISCUSSED FURTHER

All issues related to energy are discussed in this analysis.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

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

Construction activities associated with the project would be temporary and would not increase long-term energy or fuel demand. Regarding operation, the project would comply with the energy efficiency requirements of both the 2022 CalGreen Code and the 2022 California Energy Code. However, because the project would include natural gas utilities and would exceed the County's VMT threshold (resulting in greater fuel consumption than if project VMT were to be below the threshold), the project would increase the consumption of fossil fuels relative to existing conditions. This impact would be **significant**.

The following analysis addresses project construction, operational, and transportation energy impacts.

Construction-Related Energy

Energy would be required to construct, operate, and maintain construction equipment and to produce and transport construction materials associated with the construction of the project. Construction would occur over an approximately 60-month period, with construction activities commencing in April 2025 and concluding in March 2030. The one-time energy expenditure required to construct the physical buildings and infrastructure associated with the project would be nonrecoverable. Most energy consumption would result from the operation of construction equipment and vehicle trips associated with commutes by construction workers and haul trucks supplying materials. See Table 3.5-3, below, for an estimate of fuel needed for construction activities associated with the project.

Table 3.5-3 Construction Energy Consumption

Construction Year	Diesel (Gallons) ¹	Gasoline (Gallons) ²
2025	95,049	14,109
2026	51,910	27,221
2027	51,420	26,765
2028	51,028	26,310
2029	39,767	18,595
2030	374	1,219
Total	289,548	114,219

¹ Diesel gallons include off-road equipment and on-road gallons from worker and vendor trips.

² Gasoline gallons include on-road gallons from worker trips.

Source: Calculations by Ascent Environmental in 2023 (See Appendix B)

Although construction activities would require fuel and other energy sources, these increases would be temporary. Construction contractors strive to complete construction projects efficiently to meet project schedules and minimize costs. Thus, only the necessary amount of fuel would be consumed. Furthermore, all construction equipment would be subject to applicable regulations relating to diesel equipment (see "Regulations Addressing Diesel Equipment" above under Section 3.5.1 "Regulatory Setting").

Building Energy

All development under the proposed project would, at a minimum, be built to meet the 2022 California Energy Code and CalGreen 2022 requirements. The 2022 California Energy Code requires the use of efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards,

and strengthens ventilation standards (CEC 2022b), compared to previous code requirements. All buildings that would be developed under the project would be required to comply with the California Energy Code standards for building energy efficiency. As construction of the land uses proposed under the project proceeds through 2030, the California Energy Code will continue to be updated on a triennial basis with the expectation that the mandatory requirements of the code will require increasingly more stringent energy efficiency requirements. This would result in increased building energy efficiency over time as buildings continue to be developed. Indirect energy use would include wastewater treatment and solid waste removal related energy.

Implementation of the project would increase electricity and natural gas consumption relative to existing conditions. It should be noted that the project would comply with the mandatory minimum requirements of Section 110.10 of the California Energy Code, which requires the installation of photovoltaic (PV) panels, which was accounted for in the energy consumption modeling. Based on California solar PV size averages, it was estimated that the project would generate approximately 3,000 megawatt hours per year (MWh/year) of solar energy in compliance with the California Energy Code. Natural gas estimates were derived from CalEEMod defaults associated with residential appliance use (e.g., water and building heating, cooktops, and fireplaces).

Table 3.5-4 provides a summary of the estimated operational energy consumption associated with the project. Model inputs and outputs are included in Appendix B.

Table 3.5-4 Operational Energy Consumption

Land Use/Energy Type	Energy Consumption	Units
Electricity Demand	4,716	MWh/year
Solar PV Generation	-3,032	MWh/year
Total Electricity Demand (Including Solar PV Generation)	1,684	MWh/year
Natural Gas Demand	16,985	MMBtu/year

Notes: GWh/year = gigawatt-hours per year; MMBtu/year = million British thermal units per year; PV = photovoltaic

Source: Calculations by Ascent in 2023.

Transportation Energy

Residential and commuter trips would make up the majority of VMT associated with the project, with occasional maintenance and delivery trips accounting for the remaining VMT. Annual VMT associated with the project would be 6,500,650 and would result in a fuel demand of 267,654 gallons per year of operation (See Appendix B for detailed assumptions and calculations).

Energy consumption, in the form of fossil fuel, is directly linked to the anticipated VMT associated with the project. That is, the more VMT generated, the more fuel consumption would be required. As stated in Section 3.14 "Transportation," the project would exceed the County's VMT per capita threshold. In terms of energy, this would result in a greater amount of fossil fuel consumed for transportation than if project-generated VMT were to be below the County's threshold. Additionally, the project would be required to comply with the EV charging requirements of the CalGreen Code, further reducing the transportation-related consumption of fossil fuel by expanding EV infrastructure.

Summary

The project would increase energy consumption for temporary construction activities related to vehicle use and material transport. However, construction activities would be temporary and would not increase long-term energy or fuel demand. Construction activities would consume the necessary amount of fuel and energy to complete work in an efficient and timely manner. Once operational, the project would increase transportation and building energy demand. As stated above, the project would include natural gas utilities and would also result in a greater amount of fossil fuel consumed for transportation than if project-generated VMT were to be below the County's threshold. As discussed in the Transportation Chapter, the project exceeds the County's VMT threshold by 0.5 VMT per capita.

According to Appendix F of the State CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall per capita energy consumption, decreasing reliance on fossil fuels, and increasing reliance on

renewable energy sources. As described above, the project would, at minimum, comply with the energy efficiency requirements of both the 2022 CalGreen Code and the 2022 California Energy Code. Each of these codes is updated regularly with increasingly stringent standards for energy conservation and efficiency. However, because the project would include natural gas utilities and would also consume a greater amount of fossil fuel for transportation than if project-generated VMT were to be below the County's threshold, the project would therefore increase the consumption of fossil fuels relative to existing conditions. Therefore, the project would not be consistent with the means to achieve the goal of conserving energy outlined in Appendix F of the State CEQA Guidelines. This impact would be **significant**.

Mitigation Measures

Implement Mitigation Measures 3.7-1a and 3.14-2.

Significance after Mitigation

Mitigation Measure 3.7-1a would require the installation of EV charging infrastructure, which would promote the adoption of EV vehicles at a higher rate compared to the Statewide average and would increase the use of non-renewable fossil fuels associated with the project. Mitigation Measure 3.14-2 would assist in reducing VMT (though not below the El Dorado County VMT thresholds), and therefore fossil fuel consumption, by requiring that a Transportation Demand Management (TDM) program be implemented. Collectively, these measures would reduce fossil fuel consumption and increase renewable energy sources, consistent with the requirements of Appendix F of the State CEQA Guidelines to conserve energy. Implementation of these mitigation measures would be consistent with the intent of General Plan Objective 5.6.2.

In consideration of the intent of Appendix F (i.e., decrease overall per capita energy consumption, decrease reliance on fossil fuel, and increase renewable energy sources), the incorporation of mitigation measures would reduce building-related and transportation-related fossil fuel use and increase renewable energy sources (electricity over natural gas). This impact would be reduced to **less than significant**.

Impact 3.5-2: Conflict With or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

Because natural gas is assumed to be included in the design and operation of the project, the project would conflict with the building decarbonization and fossil fuel reduction goals of both the 2022 Scoping Plan and the Energy Efficiency Action Plan and obstruct the implementation of these plans to achieve the State's goals of reducing fossil fuel consumption and increasing energy efficiency. Therefore, this impact would be **significant**.

Beyond General Plan Objective 5.6.2 and associated Policies 5.6.2.1 and 5.6.2.2, El Dorado County does not have an adopted energy plan for the county. Relevant plans that pertain to the efficient use of energy include the Energy Efficiency Action Plan, which focuses on energy efficiency and building decarbonization (CEC 2019), as well as the 2022 Scoping Plan. As stated in Section 3.7 "Greenhouse Gas and Climate Change," Appendix D of the 2022 Scoping Plan identifies priority areas to reduce VMT, electrify the transportation sector, and decarbonize buildings. The criteria of these priorities are primarily concerned with project design features that exceed the minimum requirements of the CalGreen (i.e., features such as renewable energy generation systems, EV chargers, and energy efficiency standards that meet the Tier 2 requirements of CalGreen). See Impact 3.7-1 in Section 3.7 "Greenhouse Gas and Climate Change" for an analysis of the project's consistency with the priority areas of the 2022 Scoping Plan. In addition, the project does not include any features that would reduce energy consumption or increase the use of renewable energy sources above what would be required by the California Building Code. This impact would be **significant**.

Mitigation Measures

Implement Mitigation Measures 3.7-1a, 3.7-1b, and 3.14-2.

Significance after Mitigation

Mitigation Measure 3.7-1a would require the installation of EV charging infrastructure, consistent with recommendations in the 2022 Scoping Plan relating to the transportation electrification priority area. The inclusion of

EV charging infrastructure, above what California Building Code requires, would promote the adoption of EV vehicles at a higher rate compared to the Statewide average and would increase the use of non-renewable fossil fuel associated with the project, consistent with Appendix F of the CEQA guidelines.

Mitigation Measure 3.7-1b includes measures to reduce the extent of natural gas usage in project buildings generally consistent with the requirements of Appendix F of the CEQA guidelines to conserve energy and the building decarbonization objectives of the 2022 Scoping Plan and Energy Efficiency Action Plan.

Mitigation Measure 3.14-2 would assist in reducing VMT (though not below the El Dorado County VMT thresholds), and therefore fossil fuel consumption, by requiring that a Transportation Demand Management (TDM) program be implemented.

With the incorporation of these mitigation measures, the project would be consistent with energy efficiency objectives of the 2022 Scoping Plan and the Energy Efficiency Action Plan, the intent of General Plan Objective 5.6.2. and this impact would be reduced to **less than significant**.

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3.6 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

This section describes the regulatory setting and current environmental setting relative to geology, soils, and paleontological resources on the project site. It presents an analysis of environmental impacts and recommendations for mitigation measures for any significant or potentially significant impacts. The primary sources of information used for this analysis are the Geotechnical Engineering Study Update (Geotechnical Study Update) prepared for the project (Youngdahl 2021), Preliminary Geotechnical Engineering Study for the Dixon Ranch Subdivision (Geotechnical Study) (Youngdahl 2011a), Preliminary Geotechnical Engineering Study for the Dixon Ranch Subdivision – Addendum Parcel (Youngdahl 2011b), and the Septic Feasibility Study prepared for the project (Youngdahl 2022). Impacts associated with the potential exposure to naturally occurring asbestos are addressed in Section 3.2, “Air Quality.”

One comment was received on the Notice of Preparation (NOP) regarding geology, soils, and paleontological resources and included a concern regarding including studies for geology to identify how the project would be different than Dixon Ranch. This comment is addressed where appropriate throughout this section. The NOP and comments submitted in response to it are included in Appendix A.

3.6.1 Regulatory Setting

FEDERAL

National Earthquake Hazards Reduction Act

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

Clean Water Act 402/National Pollutant Discharge Elimination System

The Clean Water Act (CWA) is discussed in detail in Section 3.9, “Hydrology and Water Quality.” However, because CWA Section 402 is directly relevant to excavation, additional information is provided below.

Section 402 mandates that certain types of construction activity comply with the requirements of the US Environmental Protection Agency’s (EPA’s) National Pollutant Discharge Elimination System (NPDES) program. EPA has delegated to the State Water Resources Control Board (SWRCB) the authority for the NPDES program in California, where it is implemented by the state’s nine regional water quality control boards (RWQCBs). Construction activity disturbing 1 acre or more must obtain coverage under the state’s Construction General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (see “Construction General Permit,” below). Construction General Permit applicants are required to prepare a notice of intent and a stormwater pollution prevention plan (SWPPP) and implement and maintain best management practices (BMPs) to avoid adverse effects on receiving water quality as a result of construction activities, including earthwork.

Because implementing the project would result in the disturbance of an area greater than 1 acre, the project applicant would need to obtain coverage under the NPDES Construction General Permit and obtain an NPDES stormwater permit from the Central Valley RWQCB.

Additionally, the County is implementing requirements of SWRCB’s NPDES Construction General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4) Order No. 2013-0001-DWQ (Order).

The project qualifies as a "Regulated Project" as defined in Section E.12 of the Order and therefore would be required to comply with the standards provided in the Order.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

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

Seismic Hazards Mapping Act

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

Construction General Permit

Dischargers whose projects disturb 1 or more acres of soil, or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under SWRCB's Construction General Permit (Order WQ 2022-0057-DWQ). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation.

Coverage under the Construction General Permit is obtained by submitting permit registration documents to SWRCB that include a risk-level assessment and a site-specific SWPPP that identifies an effective combination of erosion control, sediment control, and non-stormwater BMPs. The Construction General Permit requires that the SWPPP define a program of regular inspections of the BMPs and, in some cases, sampling of water quality parameters. The Central Valley RWQCB administers the NPDES stormwater permit program in El Dorado County.

Municipal Separate Storm Sewer System Program

EPA defines an MS4 as any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater that is designed or used for collecting or conveying stormwater. As part of the NPDES program, EPA initiated a program requiring that entities having MS4s apply to their local RWQCB for stormwater discharge permits. The program proceeded through two phases. Under Phase I, the program initiated permit requirements for designated municipalities with populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges. Phase II expanded the program to municipalities

with populations of fewer than 100,000, as well as small MS4 permittees outside the urbanized areas that are designated by the permitting authority to obtain NPDES permit coverage for their stormwater discharges.

Generally, Phase I MS4s are covered by individual permits, and Phase II MS4s are covered by a general permit. Each regulated MS4 is required to develop and implement a stormwater management program (SWMP) to reduce the contamination of stormwater runoff and prohibit illicit discharges. El Dorado County is a Phase II Small MS4 Traditional Renewal Permittee under MS4 Order No. 2013-0001-DWQ.

California Building Standards Code

The California Building Standards Code (CBSC) (CCR Title 24) is based on the International Building Code. The CBSC has been modified from the International Building Code for California conditions, with more detailed and/or more stringent regulations. It is composed of 12 "Parts," and Part 2 is the California Building Code (CBC), which contains general building design and construction requirements related to fire and life safety, structural safety, and access compliance. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16, Structural Design, of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18, Soils and Foundations, regulates the excavation of foundations and retaining walls, whereas Chapter 18A, Soils and Foundations, regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction, and Appendix J, "Grading," regulates grading activities, including drainage and erosion control. The CBC contains a provision that provides for a preliminary soil report to be prepared to identify "the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects" (CBC Chapter 18 Section 1803.1.1.1).

Public Resources Code Provisions Related to Paleontological Resources

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

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

LOCAL

El Dorado County General Plan

The Public Health, Safety, and Noise Element of the El Dorado County General Plan sets forth planning strategies for fire hazards, geologic and seismic hazards, flood hazards, noise, hazardous materials, air quality, airport safety, and highway safety (El Dorado County 2024). This includes goals, objectives, and policies focused on providing guidelines for protecting the residents from existing and potential geologic and seismic hazards in El Dorado County.

The following geology and soils-related objectives and policies are applicable to the project:

- ▶ **Objective 6.3.1: Building and Site Standards.** Adopt and enforce development regulations, including building and site 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]) comply with the Air Quality Management District (AQMD) Rules 223, 223-1 and 223-2 requirements. The Department of Transportation and the AQMD 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.

- **Policy 6.3.1.2:** The County shall establish a mandatory disclosure program, where potential buyers and sellers of real property in all areas likely to contain naturally occurring asbestos (based on mapping developed by DOC are provided information regarding the potential presence of asbestos subject to sale. Information shall include potential for exposure from access roads and from disturbance activities (e.g., landscaping).
- ▶ **Objective 6.3.2: County-Wide Seismic Hazards.** Continue to evaluate seismic related hazards such as liquefaction, landslides, avalanche, and seiche, particularly in the Tahoe Basin.
 - **Policy 6.3.2.4:** 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.

Grading, Erosion, and Sediment Control Ordinance

County Code of Ordinances Chapter 110.14 (Grading, Erosion, and Sediment Control) covers grading and requires grading and drainage plans to be developed for major development projects. Chapter 4 of the County Land Development Manual sets forth standards and procedures for grading activities in the county. The purposes of these requirements are to protect lives, property, and public improvements from damage related to unregulated grading and to limit water quality and sediment impacts.

Chapter 4 includes the following standards and procedures:

- ▶ All earthwork shall comply with CBC for design and construction standards.
- ▶ Complete fills shall comply with the provisions of CBC, unless recommended otherwise in an accepted geotechnical report.
- ▶ For projects on the West Slope of the Sierra Nevada, stormwater management, erosion and sediment control and drainage shall comply with the adopted Drainage Manual, SWMP and current SWRCB Order(s) regulating construction activities. This includes the development of a SWPPP.
- ▶ Proper design and construction of retaining wall systems.
- ▶ Provision of certain technical reports as part of grading permit applications (e.g., geotechnical report, geologic report, and drainage report).

El Dorado County Design and Improvement Standards Manual

The County's Design and Improvement Standards Manual (DISM), adopted in 1990, provides required erosion and sediment control measures that are applicable to subdivisions, roadways, and other types of developments. Specifically, Volume III: Grading, Erosion and Sediment Control, describes the criteria for when an erosion and sediment control plan is required. When required, erosion and sediment control plans must comply with the adopted County SWMP (El Dorado County 1990) and the NPDES MS4 Order.

El Dorado County On-Site Wastewater Treatment Systems Standards

Chapter 110.32. of the County Code of Ordinances establishes standards for the siting, design, installation, operation, and maintenance of on-site wastewater treatment systems (OWTS) in the county to protect the environment and public health. These standards are consistent with the state OWTS adopted by SWRCB pursuant to SWRCB Resolution 2012-0032. 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 (El Dorado County 2018) 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.

3.6.2 Environmental Setting

REGIONAL GEOLOGY

According to the Draft EIR for the El Dorado County General Plan, the county is located in the Sierra Nevada geomorphic province of California, which is characterized by steep-sided hills and narrow, rocky stream channels and which consists of Pliocene and older deposits that have been uplifted as a result of plate tectonics, granite intrusion, and volcanic activity (El Dorado County 2003a). The southwestern foothills are composed of the Mariposa Formation, which includes amphibolite, serpentine, and pyroxenite, whereas the northwestern areas of the county are composed of the Calaveras Formation, which includes metamorphic rock, such as chert, slate, quartzite, and mica schist, with limited serpentine formations. The higher peaks primarily consist of igneous rock and metamorphic rock, with some granite intrusions (El Dorado County 2003a).

As discussed above, NOA is also present in the region. As stated in the County's General Plan Draft EIR (2003), asbestos is commonly found in ultramafic rock, including serpentine, which is abundant predominantly in the western half of the county and particularly in the foothills of the Sierra Nevada. Asbestos has been historically mined and used for its insulation and heat-resistant properties. However, exposure and disturbance of rock and soil that contain asbestos can result in the release of fibers into the air that are hazardous to human health and the environment (El Dorado County 2003b). In particular, two types of asbestos are associated with serpentine: chrysolite asbestos, which is present in the western part of the county, and tremolite/actinolite asbestos, which is found in veins associated with faults or shear zones that contain serpentine (El Dorado County 2003b). The presence (and use) of NOA in the county has been well documented. EDCAQMD has produced a map showing the Naturally Occurring Asbestos Review Areas of the county.

LOCAL GEOLOGY

The project site is located in the western foothills region of the Sierra Nevada. This portion of the foothills and the project area are underlain by interfingerings of metavolcanic and ultramafic rocks of the Foothills Melange-Ophiolite Terrane of Late Paleozoic to Mesozoic age (Youngdahl 2011a). The project site is not designated as an important mineral resource area under the El Dorado County General Plan (Figure CO-1), nor is it designated for mineral extraction uses by the County.

A preliminary geotechnical investigation of the project site consisted of exploration of test pits in 2011. In general, soils in the project area consisted of 1–4 feet of red-brown, sandy silt overlying blue-gray weathered bedrock. Soils encountered included sandy silt, sand fill, native silt, silty sand, and weathered serpentinite bedrock. Underlying these surface fills and native soils included weathered metasedimentary bedrock. Groundwater seeps were encountered in four of the test pits during the explorations. These seeps were located in the southern portion of the project site. Groundwater conditions on the project site are limited to fractured bedrock conditions (Youngdahl 2011a: 2, 2011b: 2).

An updated evaluation of the site in 2021 confirmed the results and recommendations (updated to reflect building code changes) of the analysis conducted in 2011 (Youngdahl 2021).

Naturally Occurring Asbestos

Appendix D of the 2011 Preliminary Geotechnical Engineering Study for the Dixon Ranch Subdivision includes an assessment of NOA, stating that a portion of the project site is underlain by a mixture of metasedimentary and metavolcanic rock (Youngdahl 2011a: Appendix D). See Section 3.2, "Air Quality," for an analysis of the potential for NOA to be present on the project site.

TOPOGRAPHY AND DRAINAGE

As discussed in the Geotechnical Study Update, the topography of the project site generally slopes to the west and north at varying gradients and from east to west near the south side of the project site (Youngdahl 2021). The topographic map of the project area provided in the Geotechnical Study states that the geographical relief (difference between the highest and lowest elevations) on the project site is approximately 300 feet from south to north and approximately 100 feet from east to west. Numerous surface drainage channels extend from the highest elevations to form shallow channels to the east and west and deeper channels to the north (Youngdahl 2011a). The surface of the project site is generally covered with shallow grasses and sparse trees that are concentrated near the drainage channels and on the west-facing slopes. The Geotechnical Study also concluded that slopes on the project site were observed to have adequate vegetation on the slope face and appropriate drainage away from the slope face; they have no apparent tension cracks or slump blocks in the slope face or at the head of the slope; and no other indications of slope instability, such as seeps or springs, were observed (Youngdahl 2011a).

SOILS

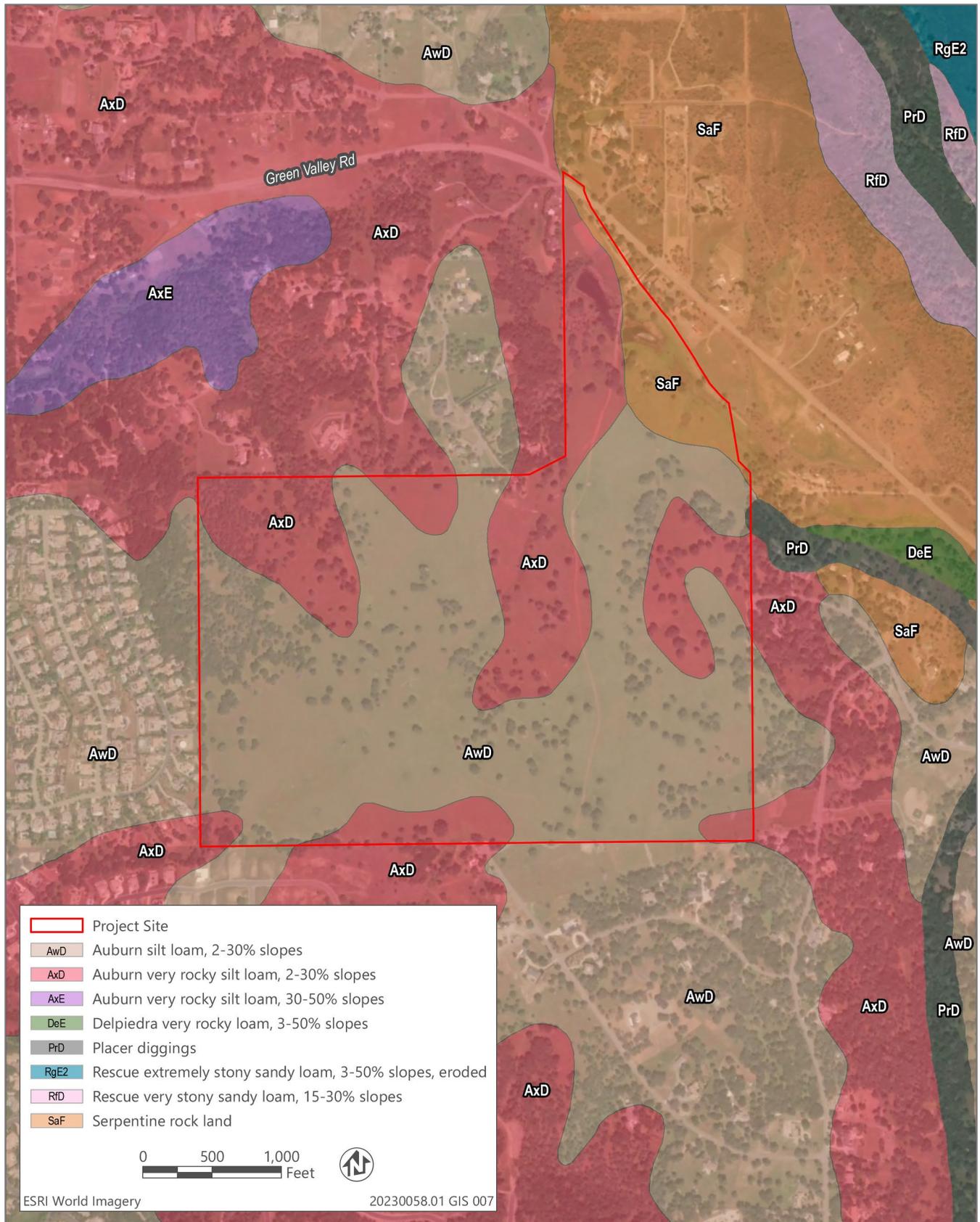
According to the County General Plan EIR, eight total soil associations are present in western El Dorado County, where the project site is located. The soils underlying the project site are identified as Auburn soils, which are classified as well-drained silt loams and gravelly loams formed in materials weathered from basic rocks and metasedimentary rocks, and serpentine soils, which are classified as excessively drained to somewhat excessively drained rock land and loams formed in material weathered from ultra-basic rocks (El Dorado County 2003a). The US Natural Resources Conservation Service's (NRCS's) Web Soil Survey more specifically categorizes the soils on-site as Auburn silt loam, Auburn very rocky silt loam, Serpentine rock land, and Placer diggings (Table 3.6-1, Figure 3.6-1) (NRCS 2024).

Table 3.6-1 Summary of Soil Characteristics

Soil Group (Percentage of Project Site)	Type	Shrink-Swell Potential
Auburn silt loam (64%)	Silty loam	Low/moderate/high
Auburn very rocky silt loam (31%)	Rocky silt loam	Low/moderate/high
Serpentine rock land (6%)	Unweathered bedrock	Low
Placer diggings (<1%)	Fine sandy loam, cobbles	Low

Note: Percentages may be slightly greater than 100% due to rounding.

Sources: El Dorado County 2003a; NRCS 2024; UC Davis 2012.



Source: Data downloaded from NRCS in 2023; adapted by Ascent in 2023.

Figure 3.6-1 Soils

EXPANSIVE SOILS

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

According to the County General Plan EIR and the NRCS Web Soil Survey, the different soils present on-site have either a low shrink-swell potential or a low to moderate to high shrink-swell potential. However, as discussed in the Geotechnical Study, the soil materials actually encountered during exploration were nonplastic or had a low plasticity. Materials with these characteristics are generally considered to be nonexpansive. Additionally, the expansion index testing of the soil indicated that the soil materials were nonexpansive. Therefore, the soils on-site are considered to be nonexpansive and would not present an expansive (or high shrink-swell) potential.

SUBSIDENCE

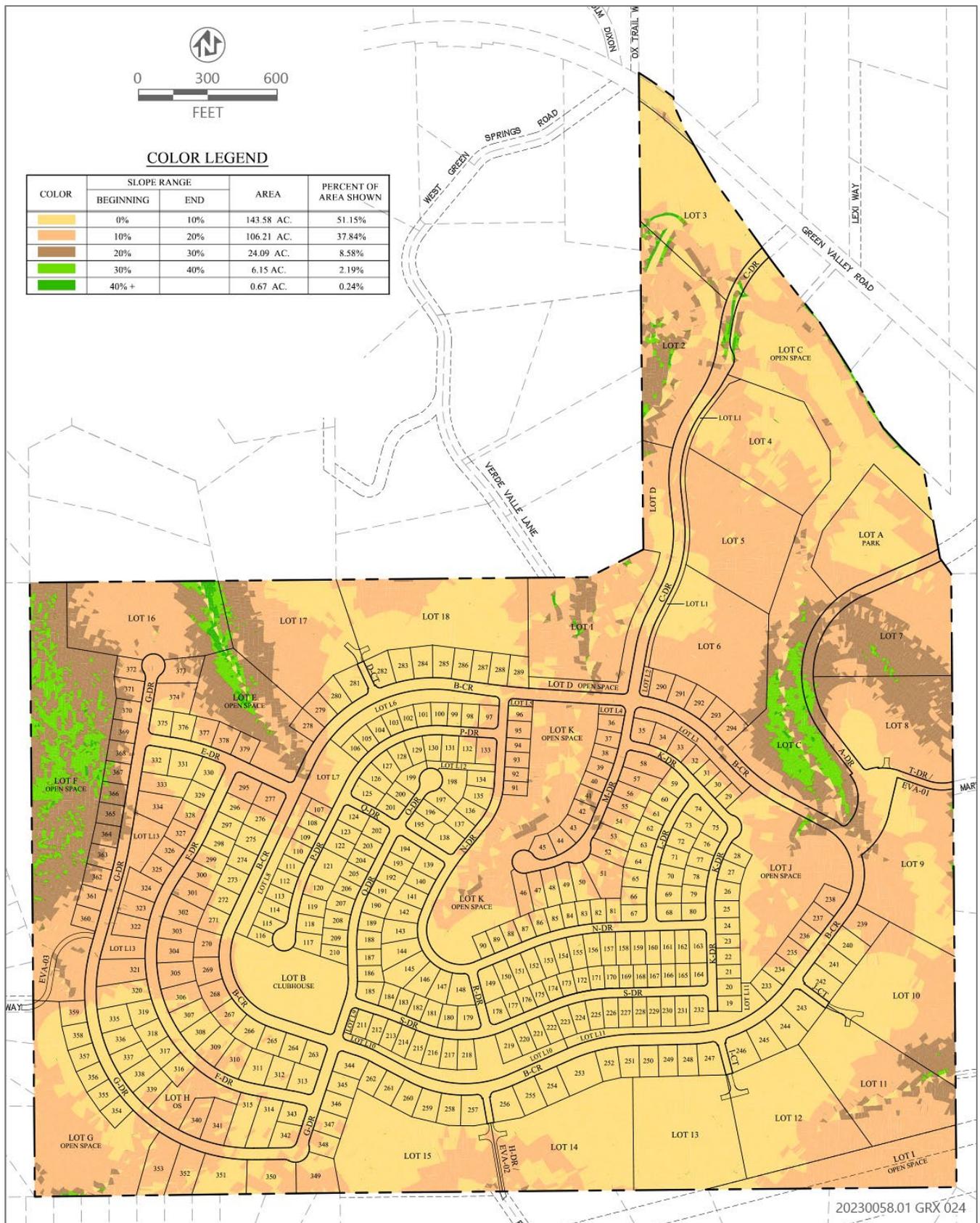
Land subsidence is the gradual settling or sinking of an area with little horizontal motion. Subsidence can be induced by both natural and human phenomena. Natural phenomena include shifting of tectonic plates and dissolution of limestone, resulting in sinkholes. Human activity that can lead to subsidence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

The project site contains silty loam, sandy loam, and bedrock at the surface and is underlain by hard igneous bedrock at depth, not sedimentary limestone, in a region that has limited access to groundwater and is not associated with any oil or gas reservoirs or mines. The Geotechnical Study did not report any evidence of subsidence on the project site or in the immediate vicinity (Youngdahl 2011a).

MASS WASTING AND LANDSLIDES

Mass wasting refers to the collective group of processes that characterize downslope movement of rock and unconsolidated sediment overlying bedrock. These processes include landslides, slumps, rockfalls, flows, and creeps. Many factors contribute to the potential for mass wasting, including geologic conditions, as well as the drainage, slope, and vegetation on the site.

According to the DOC Earthquake Zones of Required Investigation Map (DOC 2022), created by the California Geological Survey (CGS), the project site is not located in a landslide zone. Based on this map, the nearest area with land susceptible to landslides is in Antioch, approximately 62 miles to the southwest. Although the project site contains slopes to the west and north at varying gradients and from east to west near the south side of the project site, these gradients are not considered significant enough to cause landslides (DOC 2022). Figure 3.6-2 shows existing slope conditions of the project site.



Source: CTA Engineering & Surveying 2022.

Figure 3.6-2 Project Slope Conditions

Slope stability on-site is further confirmed by the Geotechnical Study, which concluded that slopes on the project site were observed to have adequate vegetation on the slope face, appropriate drainage away from the slope face, and no apparent tension cracks or slump blocks in the slope face or at the head of the slope (Youngdahl 2011a). Seep was encountered at eight of the 18 boring test pits (Youngdahl 2011a). For subdivisions built on relatively poor draining soils, prolonged water seepage into pavement sections can result in the softening of subgrade soils and subsequent pavement distress (Youngdahl 2011a). The soils that underlie the project site include well-drained Auburn soils and excessively drained serpentine soils. Heavy landscape watering, however, could enter and pond within the street aggregate base as it permeates slowly through the sidewalk aggregate base, and prolonged seepage within this pavement section could cause distress to pavements (Youngdahl 2011a). Seepage is generally not enough flow to be a stability issue to cut slopes for development, but it can be an issue for the owner of the lot at the base of the cut from a surface drainage and standing water (damp spot) standpoint (Youngdahl 2011a). This amount of water, however, is generally collected easily with landscaping drainage, surface drainage at the toe (the bottom) of the slope, and subsurface toe drains. No other indications of slope instability were observed. For these reasons, the Geotechnical Study concluded that the risk of slope instability is negligible (Youngdahl 2011a).

SEISMICITY

Most earthquakes originate along fault lines. A fault is a fracture in Earth's crust along which rocks on one side are displaced relative to those on the other side as a result of shear and compressive crustal stresses. Most faults are the result of repeated displacement that may have taken place suddenly and/or by slow creep (Bryant and Hart 2007). The State of California has a classification system that designates faults as active, potentially active, or inactive, depending on how recently displacement has occurred along them. Faults that show evidence of movement within the last 11,000 years (the Holocene geologic period) are considered active, and faults that have moved between 11,000 and 1.6 million years ago (the later Pleistocene geologic period) are considered potentially active.

According to the County General Plan EIR, El Dorado County is considered to have a relatively low potential for seismic activity because it is located beyond the highly active fault zones of the coastal areas of California (El Dorado County 2003a). A review of the US Geological Survey (USGS) Fault Map of California shows that the nearest fault zone is the Foothills Fault System, located along the foothills northeast of the project site, the nearest segment of which is located approximately 5.3 miles northeast of the project site (USGS 2024). In the County General Plan EIR, this particular portion of the Foothills Fault System is more specifically called the West Bear Mountains Fault (El Dorado County 2003a). The last earthquake produced by the Foothills Fault System was a magnitude 5.7 earthquake that occurred in Oroville on August 1, 1975, approximately 60 miles north of the project site. Except for the 1975 earthquake, a review of available published geologic and seismic hazards maps and articles indicated that there have been no recent earthquakes along this fault line. The nearest faults to the project site are listed in Table 3.6-2.

Seismic hazards resulting from earthquakes include surface fault rupture, ground shaking, and liquefaction. Each of these potential hazards is discussed below.

Table 3.6-2 Active Nearby Faults within 100 Miles of the Project Site

Fault Name	Distance from Fault to Project Site (Miles/Direction from Project Site)	Age (Years)
Foothills Fault System (West Bear Mountains Fault)	5.7 / northeast	Late Quaternary (<130,000)
Foothills Fault System (West Bear Mountains Fault)	5.9 / northeast	Undifferentiated Quaternary (<1.6 million)
Foothills Fault System (West Bear Mountains Fault)	12.35 / northwest	Late Quaternary (<130,000)
Foothills Fault System (Fault ID 26)	26 / southeast	Late Quaternary (<130,000)
Dunnigan Hills Fault	47 / west	Late Quaternary (<130,000)

Fault Name	Distance from Fault to Project Site (Miles/Direction from Project Site)	Age (Years)
West Tahoe Fault	50 / northeast	Latest Quaternary (<15,000)
North Tahoe Fault	57 / northeast	Latest Quaternary (<15,000)

Sources: USGS 2024; El Dorado County 2003a; Youngdahl 2011a.

Surface Fault Rupture

Surface rupture is the surface expression of movement along a fault. Structures built over an active fault can be torn apart if the ground ruptures. The potential for surface rupture is based on the concepts of recency and recurrence. Surface rupture along faults is generally limited to a linear zone a few meters wide. The Alquist-Priolo Act (see the "Regulatory Setting" section, above) was created to prohibit the location of structures designed for human occupancy across, or within 50 feet of, an active fault, thereby reducing the loss of life and property from an earthquake.

As stated in the El Dorado County EIR, the probability of fault rupture in the county is based on the CGS Earthquake Fault Zone maps, pursuant to the Alquist-Priolo Act (El Dorado County 2003a). The CGS is one of five divisions that make up the DOC, and according to the Earthquake Zone Map produced by CGS and published by DOC, the project site is not located in an Alquist-Priolo active fault zone (DOC 2022). There is no evidence of active faulting on the project site. The lack of active faulting is further confirmed by the Geotechnical Study, which concluded that, based on the records currently available, the project site is not located in an earthquake fault zone, there are no known faults located on the project site, and no evidence of recent or active faulting was observed during the field study (Youngdahl 2011a).

Ground Shaking

The intensity of seismic shaking, or strong ground motion, during an earthquake depends on the distance and direction from the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions of the surrounding area. Ground shaking could potentially result in damage to or the collapse of buildings and other structures. Generally, in El Dorado County the potential intensity of seismic events is considered low to moderate and increases from west to east, with the highest potential ground shaking intensity located in the Lake Tahoe Basin (El Dorado County 2003a).

The project site is located in the southeastern portion of the county and is therefore considered to have lower seismic intensity potential.

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which loose, saturated, granular soil deposits lose a significant portion of their shear strength because of excess pore water pressure buildup. An earthquake typically causes an increase in pore water pressure and subsequent liquefaction in such soils. Soils experiencing liquefaction behave like a liquid during seismic shaking and resolidify when shaking stops. The potential for liquefaction is highest in areas with high groundwater and loose, fine, sandy soils at depths of less than 50 feet.

Based on the CGS's Earthquake Fault Zone map, which identifies liquefaction- and landslide-prone areas, the project site is not located in an area prone to liquefaction (DOC 2022). In addition, the Geotechnical Study concluded that, because of the absence of a permanent elevated groundwater table, the relatively low seismicity of the area, the relatively shallow depth to bedrock, and the relatively dense nature of site materials, the potential for damage on the site from site liquefaction, slope instability, or surface rupture is negligible (Youngdahl 2011a).

Liquefaction may also lead to lateral spreading. Lateral spreading (also known as expansion) is the horizontal movement or spreading of soil toward an "open face," such as a streambank, the open side of fill embankments, or the sides of levees. It often occurs in response to liquefaction of soils in an adjacent area. The potential for failure from lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high.

As previously discussed, the project site and vicinity (and the county in general) have limited access to groundwater because nonporous, hard metamorphic rock underlies thin soil layers. The nearest bodies of water are Green Springs Creek, which flows east-west through a northern section of the project site, Allegheny Creek, which flows through the proposed off-site improvements area, Bass Lake, located approximately 1.5 miles southwest of the project site, and Sweetwater Creek, located approximately 2,900 feet northeast of the project site. Although Green Springs Creek is located onsite, due to the underlying geology the project site is not located in a liquefaction-prone area (DOC 2022), and the potential for lateral spreading caused by liquefaction due to project implementation is considered negligible.

PALEONTOLOGICAL RESOURCES

As stated in the County General Plan EIR, paleontology is the study of the typically fossilized remains of various plants and animal species, which are found predominantly in sedimentary rock formation. El Dorado County's geologic formations are predominantly igneous (volcanic) in nature, and the types of sedimentary deposits where paleontological resources occur are virtually nonexistent in the County (El Dorado County 2003c). The project area is underlain by interfingerings of metavolcanic and ultramafic rocks of the Foothills Melange-Ophiolite Terrane of Late Paleozoic to Mesozoic age, limiting the potential for paleontological resources, which are typically found in sedimentary geologic conditions (Youngdahl 2011a). For these reasons, the project site's potential for the presence of paleontological resources is considered low. However, no comprehensive paleontological studies have been conducted in the county, and, as a result, no information is available regarding the sensitivity of certain areas (El Dorado County 2003c). Therefore, although it is highly unlikely that paleontological resources would be encountered during construction of the project, there is a potential for inadvertent discovery of previously unknown paleontological resources to occur.

3.6.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The examination of geology, soils, mineral resources, and paleontological resources is based on information obtained from review of:

- ▶ available literature, including documents published by El Dorado County and state and federal agencies;
- ▶ applicable elements from El Dorado County General Plan; and
- ▶ the Geotechnical Engineering Study Update prepared for the project (Youngdahl 2021), Preliminary Geotechnical Engineering Study for the Dixon Ranch Subdivision (Youngdahl 2011a), and Preliminary Geotechnical Engineering Study for the Dixon Ranch Subdivision – Addendum Parcel (Youngdahl 2011b); and the Septic Feasibility Study prepared for the project (Appendix D).

THRESHOLDS OF SIGNIFICANCE

A geology and soils impact would be significant if implementation of the project would do any of the following.

- ▶ directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death 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 or based on other substantial evidence of a known fault. (Refer to California Geological Survey Special Publication 42.),
 - strong seismic ground shaking,
 - seismic-related ground failure, including liquefaction, or
 - 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 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property;
- ▶ have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water;
- ▶ 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; or
- ▶ result in the loss of availability of a locally important mineral resources recovery site delineated on a local general plan, specific plan, or other land use plan.

ISSUES NOT DISCUSSED FURTHER

Fault Rupture

Fault rupture impacts are limited to areas in the immediate vicinity of an earthquake fault. As previously discussed, the project site is not located in a state-designated Alquist-Priolo Earthquake Fault Zone, and there are no known fault traces that extend through, or occur in the immediate vicinity of, the project site. The Geotechnical Study confirmed that the project site is not located in an earthquake fault zone, confirmed that no known faults are located on the project site, and states that no evidence of recent or active faulting was observed during the conducted field study (Youngdahl 2011a). Therefore, surface fault rupture on-site is not anticipated to occur. In addition, the project would be required to comply with CBC requirements for residential land uses. Compliance with the CBC would ensure that potential impacts related to fault rupture would be minimized. This issue is not discussed further.

Directly or Indirectly Cause Landslides

As discussed above, the project site is not located in an area susceptible to landslides (DOC 2022). The nearest land susceptible to landslides is located approximately 60 miles southwest, in the city of Antioch. Because of this distance and the relatively level topography that the project site would have following grading during construction activities, the probability of a landslide and mass wasting is considered low. Although the project site contains slopes to the west and north at varying gradients and from east to west, these gradients are not considered to be capable of inducing landslides. Further, as part of standard construction activities, the project site would be appropriately graded for residential land uses, which would further reduce the gradient slopes on-site. The Geotechnical Study confirmed that slopes on the project site were observed to have adequate vegetation on the slope face, appropriate drainage away from the slope face, and no apparent tension cracks or slump blocks in the slope face or at the head of the slope, and it states that no other indications of slope instability, such as seeps or springs, were observed (Youngdahl 2011a). For these reasons, the Geotechnical Study concluded that the risk of slope instability is negligible. This issue is not discussed further.

Mineral Resources

The project site is not designated as an important mineral resource area under the El Dorado County General Plan (Figure CO-1), nor is it designated for mineral extraction uses by the County. Project site development would not result in the loss of availability of a known mineral resource of value to the region or the state or the loss of availability of a locally important mineral resource recovery site. This issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: Result in Loss, Injury, or Death Resulting from Seismic Hazards

The county is identified as having relatively low potential for seismic activity and a review of published geologic maps, in the General Plan EIR, and the Geotechnical Study confirm that project implementation is not likely to cause potential adverse effects associated with strong seismic shaking. Compliance with CBC requirements would ensure that potential adverse effects related to strong seismic shaking would be further minimized. In addition, the project site is not located on land prone to liquefaction or landslides, and due to the project site's underlying geology and slope stability, the potential damage related to liquefaction is considered negligible. This impact would be **less than significant**.

According to the General Plan EIR, El Dorado County is considered to have a relatively low potential for seismic activity and is located beyond the highly active fault zones of the coastal areas of California (El Dorado County 2003a). The USGS Fault Map of California shows that the fault zone nearest to the project site is the Foothills Fault System, located along the foothills northeast of the site, the nearest segment of which is located approximately 5.3 miles northeast of the project site (USGS 2024). In the General Plan EIR, this particular portion of the Foothills Fault System is more specifically called the West Bear Mountains Fault (El Dorado County 2003a). The last earthquake produced by the Foothills Fault System was a magnitude 5.7 earthquake that occurred in Oroville on August 1, 1975, approximately 60 miles north of the project site. Except for the 1975 earthquake, a review of available published geologic and seismic hazards maps and articles indicated that there have been no recent earthquakes along this fault line. Nevertheless, the project would be required to comply with the CBC regarding Chapter 16, Structural Design, which identifies both general building structural design requirements and specific seismic safety design requirements for projects. These seismic design criteria are also included as recommendations in the Geotechnical Study Update (Youngdahl 2021). Standard regulatory compliance with the CBC and incorporation of the Geotechnical Study Update recommendations would minimize the project's potential to cause direct or indirect adverse effects, including risk of loss, injury, or death, involving strong seismic shaking.

Based on the CGS's Earthquake Fault Zone map, which identifies liquefaction- and landslide-prone areas, the project site is not located in an area prone to liquefaction (DOC 2022). The Geotechnical Study concluded that, because of the absence of a permanent elevated groundwater table, the relatively low seismicity of the area, the relatively shallow depth to bedrock, and the relatively dense nature of site materials, the potential for damage on the site from liquefaction, slope instability, or surface rupture is negligible (Youngdahl 2011a). In addition, construction of the project would be required to comply with the CBC, including Chapter 18, Soils and Foundations, which identifies both general building foundation design requirements and, although not applicable to the project, specific foundation requirements for projects located in areas prone to liquefaction. Because the project is located in an area of low seismicity, the groundwater table on the site is low, the area is not prone to liquefaction, and compliance with the CBC would minimize the project's potential to cause direct or indirect adverse effects, including risk of loss, injury, or death, involving liquefaction, this impact would be **less than significant**.

It is also important to note that environmental impact analyses under CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents unless the project might cause or risk exacerbating environmental hazards or conditions that already exist (CCR Section 15126.2[a]). In those specific instances, it is the project's impact on the environment and not the environment's impact on the project that compels an evaluation of how future residents or users may be affected by exacerbated conditions (*California Building Industry Association v. Bay Area Air Quality Management District* [2015] 62 Cal. 4th 369). Project construction and operation would not create new seismic events or exacerbate existing seismic hazards, because the project improvements would involve limited excavation that would not alter existing geologic, seismic, and fault conditions in the region.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-2: Result in Substantial Soil Erosion or the Loss of Topsoil

Because of the natural topographical gradients of the project site and proposed construction grading activities, soil erosion from development of the project's residential uses may occur on the site. However, compliance with SWRCB's Construction General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order WQ 2022-0057-DWQ) and County Code of Ordinances Chapter 110.14 (Grading, Erosion, and Sediment Control) would ensure that impacts related to substantial erosion or the loss of topsoil during construction, operation, and maintenance would be **less than significant**.

The Geotechnical Study states that the topography of the project site generally slopes to the west and north at varying gradients and from east to west near the south side of the project site and that the USGS topographic map of the project area suggests that the topographic relief on the site is approximately 300 feet south to north and approximately 100 feet east to west (Youngdahl 2011a). Numerous surface drainage channels extend from the highest elevations to form shallow channels to the east and west and deeper channels to the north. The surface of the project site is generally covered with shallow grasses and sparse trees that are concentrated near the drainage channels and on the west-facing slopes. Construction activities associated with development of the project would include vegetation removal, site clearing, and grading of soils, all of which would increase the likelihood of erosion and loss of topsoil. For construction projects more than 1 acre in size, such as the project, regulatory compliance with SWRCB's Construction General Permit Order WQ 2022-0057-DWQ would ensure that the potential for erosion or loss of topsoil during project construction would be reduced to less than significant. As part of Order WQ 2022-0057-DWQ, a SWPPP is required for development resulting in more than 1 acre of ground disturbance (SWRCB 2024). Implementation of the SWPPP would involve site-specific BMPs to prevent substantial erosion and stormwater runoff, including implementing a monitoring program, as necessary. (The reader is referred to Section 3.9, "Hydrology and Water Quality," for further discussion of water quality impacts.) The SWPPP would be required to identify temporary BMPs to prevent the transport of earthen materials from construction sites during periods of precipitation or runoff and to prevent wind erosion of earthen materials. Mandatory compliance with adopted regulations would require the project to minimize erosion and loss of topsoil during construction. These BMPs for on- and off-site construction, including the protection of Green Springs Creek and Allegheny Creek, would likely include the installation of straw wattles, silt fencing, erosion control blankets, fiber rolls, straw mulch, sedimentation basins, drain inlet protection, stabilized construction accesses, and material management. Ultimately, the SWPPP would clarify the specific types of BMPs best suited to the geography and geology of the on- and off-site improvements. Operation and maintenance would not require additional soil disturbance and would not result in erosion or loss of topsoil. In addition, after the project is constructed, there would be a reduction in the area of exposed soil compared to current conditions, limiting the potential for soil erosion to occur. The project would also be subject to County Code of Ordinances Chapter 110.14 (Grading, Erosion, and Sediment Control), which establishes BMPs for drainage related to grading activities.

The potential for increased erosion would be addressed through compliance with the county and SWRCB erosion control requirements described above and through project design. Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-3: Be Located on Expansive Soil, Creating Substantial Direct or Indirect Risks to Life and Property or 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, Liquefaction, or Collapse

Soil exploration and index testing analysis conducted for the Geotechnical Study confirmed that the soils on-site are nonexpansive soils. The project site is not located on an unstable geologic unit, and the Geotechnical Study found no evidence of slope instability. The project site is also not located on land susceptible to liquefaction or landslides, and due to the distance to the nearest lake and creek, lateral spreading also is considered negligible. As part of the County's project approval and review process, a site-specific, project-specific final geotechnical report would be prepared. Any recommendations related to soil compaction or unstable soils would be incorporated into the project. As a result, this impact would be **less than significant**.

Regarding expansive soils, according to the County General Plan EIR and the NRCS Web Soil Survey, the soils present on-site have either a low shrink-swell potential or a low to moderate to high shrink-swell potential. However, as discussed in the Geotechnical Study, the soil materials encountered during exploration were nonplastic or had a low plasticity (Youngdahl 2011a). Materials with these characteristics are generally considered to be nonexpansive. Additionally, the expansion index testing indicated that the soil materials were nonexpansive. Therefore, the soils on-site are considered to be nonexpansive and would not present an expansive potential. The Geotechnical Study concluded that special design considerations for expansive soils are not anticipated (Youngdahl 2011a). Chapter 18, Soils and Foundations, of the CBC identifies both general building foundation design requirements and regulates construction activities on unstable soils, including expansive soils, if applicable. Although it is not anticipated that construction of the project would unearth expansive soils, the project would nevertheless be required to adhere to the regulatory compliance of the CBC regarding soils and foundations and Chapter 18A if expansive soils are encountered during project construction. Therefore, the project site is not considered to be located on soils that are expansive, and development on the site would not create a substantial direct or indirect risk to life or property. If expansive soils are encountered during construction, the project would adhere to the regulatory compliance of the CBC, which would minimize any potential direct or indirect risk to life and property.

Regarding being located on an unstable geologic unit, as previously discussed, the project site is located in a geologic area of the county that contains hard igneous and metamorphic rock, which is not an unstable geologic unit. The Geotechnical Study concluded that slopes on the project site were observed to have adequate vegetation on the slope face, appropriate drainage away from the slope face, and no apparent tension cracks or slump blocks in the slope face or at the head of the slope, and no other indications of slope instability were observed (Youngdahl 2011a). Seep was encountered at eight of the 20 boring test pits (Youngdahl 2011a). In subdivisions built on relatively poor draining soils, prolonged water seepage into pavement sections can result in softening of subgrade soils and subsequent pavement distress (Youngdahl 2011a). The soils that underlie the project site include well-drained Auburn soils and excessively drained serpentine soils. Heavy landscape watering, however, could enter and pond within the street aggregate base as it permeates slowly through the sidewalk aggregate base. Prolonged seepage could cause distress to pavements (Youngdahl 2011a). Seepage is generally not a stability issue to cut slopes for development but can be an issue for lot owners at the base of the cut from a surface drainage and standing water (damp spot) standpoint (Youngdahl 2011a). This amount of water is collected easily with landscaping drainage, surface drainage at the bottom of the slope, and subsurface bottom drains. As discussed in greater detail in Section 3.9, "Hydrology and Water Quality," the project would be subject to the SWRCB Construction General Permit and the Small MS4 Permit. The MS4 Permit would ensure drainage measures are compliant with regulatory standards during construction activities. Additionally, the project would be subject to the County's Grading, Erosion, and Sediment Ordinance (Chapter 110.14 of the County Code of Ordinances), which requires the project site to be graded to reduce runoff conditions. Further, the project would be subject to the El Dorado County Subdivision Ordinance, which requires a drainage plan be submitted prior to the approval of proposed subdivision projects and the El Dorado County Drainage Manual, which provides standard procedures for designs of drainage improvements. Adherence to these regulatory compliance ordinances and manual, in addition to the naturally well-drained soils, would ensure that existing slope stability would not be significantly impacted by seep.

The Geotechnical Study noted that existing fill slopes located at the northeast corner of the project site are over-steepened and not considered stable for long-term use. Excessive water and other erosive factors may decrease the stability of the fill slopes, and the Geotechnical Study recommended that the fill slopes be removed and reconstructed during the over-excavation operations of construction. Therefore, Geotechnical Study recommended that all fills and fill stockpiles, if encountered during grading, would be over-excavated down to firm native materials. The thickest fills (and thus the most over-excavation anticipated) are located in the northeastern corner of the project site. These fills are anticipated to be up to 20 feet thick. Due to the probability of Naturally Occurring Asbestos (NOA), the Geotechnical Study recommended that all fills within these areas should remain on the parcels on which they are located and not be imported to other areas of the project site. It should be noted that while these recommendations were for the Dixon Ranch project, the Geotechnical Study Update in 2021 reaffirms the conclusions and recommendations of the Geotechnical Study. This portion of the project site consists of roadway improvements, the proposed park site, and the proposed 5-acre residential lots. Thus, these fill slopes and underlying geological soils conditions would remain on-site, and construction of the project would implement the recommendations of the Geotechnical Study consistent with the requirements of County and CBC.

As stated in Section 2, "Project Description," grading activities (i.e., cut and fill) for the project would be balanced on-site with no expected substantial import or export of soil. Although not anticipated, if any soil from the northeastern portion of the project site likely to contain NOA is exported, exportation of the soil would comply with Mitigation Measure 3.2-1c, in Section 3.2, "Air Quality." This measure would ensure that any NOA encountered during construction activities would be handled in accordance with regulatory compliance requirements established by the El Dorado County Air Quality Management District to ensure that safety protocols are implemented and that emissions thresholds are not exceeded.

In addition, as part of standard construction activities, the project site would be appropriately graded for residential land uses, which would further reduce the existing gradient slopes on-site. Because of 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 slope instability is considered negligible. The project is also not located on land susceptible to liquefaction or landslides (DOC 2022). Figure 3.6-2 identifies slope conditions of the project area and areas which have slopes of 30 percent or higher. The majority of the proposed site plan for the project would avoid these sloped areas through the placement of proposed open space areas and the siting of large 5-acre lots to avoid building housing directly on these slopes. As shown in Figure 3.6-2, minor portions of C-Drive and A-Drive and portions of Lot 2 and 362 through 372 would include construction and grading of slopes of 30 percent or greater (see Figure 2-9a and Figure 2-9b). These grading would be conducted accordance with County grading standards for both roadway and residential development to ensure slope stability.

As previously discussed, the project site and vicinity (and the county in general) have limited access to groundwater because nonporous, hard metamorphic rock underlies thin soil layers. The bodies of water nearest to the project site are Green Springs Creek, which flows east-west through a northern section of the project site, and Allegheny Creek, which flows through the off-site sewer alignment, Bass Lake, located approximately 1.5 miles southwest, and Sweetwater Creek, located approximately 2,900 feet northeast. Although Green Springs Creek and Allegheny Creek are located onsite, due to the underlying geology, the project site is not located in a liquefaction-prone area (DOC 2022), and the potential for seismic-related ground failure, including lateral spreading caused by liquefaction, is considered negligible. In addition, construction of the project would be required to comply with the CBC regarding Chapter 18, Soils and Foundations, which identifies both general building foundation design requirements and, although not applicable to the project, specific foundation requirements for projects located in areas prone to liquefaction. Further, implementation of the recommendations of the Geotechnical Study pertaining to site grading and improvements, design recommendations, and design review and construction monitoring would further minimize potential impacts related to unstable soils. Implementation of any further site grading and improvements, design recommendations, and design review and construction monitoring in the final geotechnical report would also minimize potential impacts related to unstable soils.

Further, the project would be required to comply with the County Code of Ordinances Chapter 110.14, Grading, Erosion, and Sediment Control Ordinance, which requires grading and drainage plans to be developed for major

development projects, as well as compliance with Chapter 4 of the County Land Development Manual, which sets forth standards and procedures for grading activities in the county. The purposes of these requirements are to protect lives, property, and public improvements from damage related to unregulated grading and to limit water quality and sediment impacts. Through adherence to County Code and building code requirements, geologic and soil stability measures would be incorporated into the project design consistent with county standards, and impacts related to unstable soils would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-4: Have Soils Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Wastewater Disposal Systems Where Sewers Are Not Available for the Disposal of Wastewater

One existing residence onsite would be demolished for the construction of the project, and its septic system would be properly abandoned in accordance with County requirements. A total of 7 five-acre lots proposed under the project would have on-site wastewater disposal systems. A on-site septic system analysis has been prepared for the project and the project would be subject to County Code of Ordinances Chapter 110.32 and the County's OWTS Manual, both of which provide performance standards for OWTS to protect the environment and public health. Nevertheless, the Septic Study recommended that additional testing be completed to confirm the suitability of proposed wastewater disposal systems onsite. This impact would be **significant**.

The project would be required to comply with County Code of Ordinances Chapter 110.32, which establishes standards for the siting, design, installation, operation, and maintenance of OWTS in the county to protect the environment and public health. These standards are consistent with the state OWTS adopted by SWRCB pursuant to SWRCB Resolution 2012-0032. In addition, the OWTS Manual, which falls under Chapter 110.32, includes standards for OWTS design. These standards include obtaining soil test data to determine the soil's ability to treat and dispose of wastewater; conducting percolation testing to determine soil permeability; identifying depth to groundwater; and providing site plan details to identify the locations of any existing or proposed wastewater features; including standards to protect surface water. Adherence to these standards would protect the public health and environment from potential adverse health and environmental impacts (El Dorado County 2018).

Youngdahl prepared a Septic Feasibility Study (Septic Study) for the project in 2022 to evaluate on-site soils, near surface geology, and the feasibility of on-site wastewater disposal (Youngdahl 2022). The Septic Study is provided in Appendix D of this Draft EIR and includes evaluation of three test pits and three sets of four percolation tests per test pit in the area of proposed lots 3, 4, and 8. No groundwater was encountered. Each of the three percolation tests were successful, and overall, no significant variations in soil subsurface conditions were found on the project site that would impact the proper operation of septic systems (Youngdahl 2022). The Septic Study concluded that the subsurface conditions and percolation characteristics across the project site would be consistent with those observed, but recommended that additional exploration be completed prior to filing of the final map for the site plan to locate suitable wastewater disposal areas for lots not covered during the original exploration (Youngdahl 2022).

Due to there being no significant variation in soil subsurface conditions across the project site and the proximity of the tests to the remaining lots proposed for septic wastewater disposal (proposed residential lots 2, 5, 6, and 7), proposed septic wastewater disposal would be reasonably expected to contain the same soil characteristics as those lots on which testing was conducted and would be able to support wastewater disposal systems such as septic tanks.

Compliance with Chapter 110.32 in the County Code of Ordinances and OWTS Manual and the results of the Septic Study would ensure that construction and operation of the project would not have a significant adverse wastewater disposal or sewer system impact on existing conditions. However, completion of a septic feasibility analysis for proposed lots 2, 5, 6, and 7 is recommended to confirm the ability for on-site wastewater systems to operate on these lots. Thus, this impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.6-4: Complete Additional Percolation Exploration

Prior to approval of the final map, the project applicant shall complete a septic feasibility analysis for proposed lots 2, 5, 6, and 7 to confirm that the proposed wastewater disposal areas are suitable for lots not covered during the original exploration.

Significance after Mitigation

Mitigation Measure 3.6-4 would require the applicant to complete additional percolation testing for lots 2, 5, 6, and 7 not covered during the original exploration to confirm the suitability of the proposed wastewater disposal areas for the project. Implementation of this mitigation measure would reduce the project's potential impact associated with onsite soils capable of adequately supporting the proposed wastewater disposal systems to **less than significant**.

Impact 3.6-5: Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature

The project area is underlain by metavolcanic and ultramafic rocks of the Foothills Melange-Ophiolite Terrane of Late Paleozoic to Mesozoic age, limiting the potential for paleontological resources, which typically are found in sedimentary geologic conditions. Nevertheless, no comprehensive paleontological studies have been conducted in the county, and as a result, no information is available regarding the sensitivity of certain areas. As identified in the project site geotechnical investigations, the site consists of geologic conditions common in the region and does not contain unique geologic features. Although it is anticipated that the project does not contain unique paleontological resources, the potential to discover paleontological resources onsite still exists. This impact would be **significant**.

The county's geologic formations are predominantly igneous, and the types of sedimentary deposits in which paleontological resources occur are virtually nonexistent in the county (El Dorado County 2003c). The project area is underlain by interfingerings of metavolcanic and ultramafic rocks of the Foothills Melange-Ophiolite Terrane of Late Paleozoic to Mesozoic age, limiting the potential for paleontological resources, which typically are found in sedimentary geologic conditions (Youngdahl 2011a). Because the geology of the project site is defined by different types of igneous rock, the project site's potential for the presence of paleontological resources is considered low. Nevertheless, no comprehensive paleontological studies have been conducted in the county, and as a result, no information is available regarding the sensitivity of certain areas (El Dorado County 2003c). As a result, although it is anticipated that the project site does not contain unique paleontological resources or sites, the potential to discover paleontological resources on-site during project-related construction activities still exists. This impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.6-5a: Educate Construction Personnel in Recognizing Fossil Materials

Before construction begins, the project applicant shall ensure that all construction workers who will be on-site during construction of the project receive training provided by a qualified paleontologist meeting the Secretary of the Interior's qualifications to ensure that construction personnel can correctly identify fossilized materials in the event of inadvertent discovery. Proof of training shall be submitted to the County.

Mitigation Measure 3.6-5b: Implement Procedures for the Inadvertent Discovery of Paleontological Resources

If any paleontological resources are encountered during development of the project, the construction contractor shall ensure that all activities in the immediate area of the find are halted and that the applicant and County are informed. The applicant shall then retain a qualified paleontologist meeting the Secretary of the Interior's qualifications to evaluate the discovery, prepare a report evaluating the discovery, and include recommendations in the report pursuant to the guidelines established by the Society of Vertebrate Paleontology, including, if applicable, development and implementation of a paleontological resource impact mitigation program for treatment of the discovery.

Significance after Mitigation

Mitigation Measure 3.6-5a would require the applicant to educate all personnel associated with construction activities on-site to receive training by a qualified paleontologist. Mitigation Measure 3.6-5b would require the applicant to retain a qualified paleontologist to evaluate the discovery and implement the recommendations in the survey, study, or report regarding appropriate treatment if a paleontological resource is found during ground-disturbing activities. Implementation of these mitigation measures would reduce the project's potential impact associated with inadvertent discovery of paleontological resources to **less than significant**.

3.7 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section presents a summary of the current state of climate change science and greenhouse gas (GHG) emissions sources in California; a summary of applicable regulations; quantification of project-generated GHG emissions and discussion about their potential contribution to global climate change; and analysis of the project's resiliency to climate change-related risks. No comments on the notice of preparation were received relating to GHG emissions or climate change.

No comments related to GHG or climate change were received in response to the notice of preparation.

3.7.1 Regulatory Setting

FEDERAL

Supreme Court Ruling

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States (US) ruled that carbon dioxide (CO₂) is an air pollutant as defined under the federal Clean Air Act (CAA) and that the US Environmental Protection Agency (EPA) has the authority to regulate GHG emissions. In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the CAA.

The National Highway Traffic Safety Administration (NHTSA) regulates vehicle emissions through the Corporate Average Fuel Economy (CAFE) Standards. On April 1, 2022, the Secretary of Transportation unveiled new CAFE standards for 2024–2026 model year passenger cars and light-duty trucks. These new standards require new vehicles sold in the US to average at least 40 miles per gallon and apply to all states except those that enforce stricter standards.

STATE

Plans, policies, regulations, and laws established by the state agencies are generally presented in the order they were established.

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing greenhouse gas (GHG) emissions in California has been the focus of the State government for approximately two decades. GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing emissions to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order (EO) S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. This target was superseded by AB 1279, which codifies a goal for carbon neutrality and to reduce emissions by 85 percent below 1990 levels by 2045. These targets are in line with the scientifically established levels needed in the US to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015).

The California Air Resources Board (CARB) adopted the *Final 2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 16, 2022, which traces the State's pathway to achieve its carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045. It identifies the reductions needed by each GHG emission sector (e.g., transportation [including off-road mobile source emissions], industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste) to achieve these goals.

The state has also passed more detailed legislation addressing GHG emissions associated with transportation, electricity generation, and energy consumption, as summarized below.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars (ACC) program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel-powered on-road vehicles than EPA. The program's initial goal requiring zero-emission vehicle (ZEV) regulation (i.e., battery, fuel cell, and plug-in hybrid electric vehicles [EVs]) to account for up to 15 percent of California's new vehicle sales by 2025 was superseded by EO N-79-20, which directed the state to scale out the sales of internal combustion engines to 100 percent ZEV sales by 2035. The Advanced Clean Cars II (ACC II) Program was adopted by CARB in August 2022, and provides the regulatory framework for ensuring the sales requirement goal of EO N-79-20 to ultimately reach 100 percent ZEV sales in the state by 2035.

EO B-48-18, signed into law in January 2018, requires all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as 200 hydrogen-fueling stations and 250,000 EV-charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity (CI) of California's transportation fuels. Low-CI fuels emit less CO₂ than other fossil fuel-based fuels such as gasoline and fossil diesel. The LCFS applies to fuels used by on-road motor vehicles and off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

Legislation Associated with Electricity Generation

SB 100 of 2018 sets a three-stage compliance period requiring all California utilities, including independently owned utilities, energy service providers, and community choice aggregators, to generate 52 percent of their electricity from renewables by December 31, 2027; 60 percent by December 31, 2030; and 100 percent carbon-free electricity by December 31, 2045. On September 16, 2022, SB 1020 was signed into law. This bill supersedes the goals of SB 100 by requiring that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040, 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035.

Building Energy Efficiency Standards

Title 24, Part 6

The energy consumption of new residential and nonresidential buildings in California is regulated by the State's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. The core focus of the building standards has been efficiency, but the 2019 California Energy Code ventured into on-site generation by requiring solar photovoltaic (PV) systems on new homes, providing significant GHG savings. The most recent is the 2022 California Energy Code which advances the on-site energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar PV system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. The CEC estimates that the 2022 California Energy Code will save consumers \$1.5 billion and reduce GHGs by 10 million metric tons of CO₂ equivalent (MMTCO₂e) over the next 30 years (CEC 2021).

Title 24, Part 11

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The current version is the 2022 CALGreen Code, which took effect on January 1, 2023. As compared to the 2019 CalGreen Code, the 2022 CalGreen Code strengthened sections pertaining to EV and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CalGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are

adopted by local agencies that enforce building codes and used as guidelines by State agencies for meeting the requirements of EO B-18-12.

CalGreen establishes two tiers of standards to provide designers and jurisdictions the opportunity to go beyond the minimum mandatory requirements to promote the use of design and construction concepts that minimize the building's impact on the environment and promote a more sustainable design. Tier 1 requirements are more stringent than the base mandatory CalGreen provisions, and Tier 2 achieves an even higher standard. Local governments may adopt ordinances that make tier options mandatory to meet their community's sustainability goals.

LOCAL

Environmental Vision for El Dorado County Resolution No. 29-2008

The El Dorado County Board of Supervisors adopted Resolution No. 29-2008, the "Environmental Vision for El Dorado County," on March 25, 2008. The Resolution sets forth goals and calls for the implementation of positive environmental changes to reduce global impacts, improve air quality and reduce dependence on landfills, promote alternative energies, increase recycling, and encourage local governments to adopt green and sustainable practices. As it relates to global climate change and GHG emissions, the resolution establishes goals that include, but are not limited to, the following:

- ▶ Transportation, Traffic, and Transit
 - Reduce carbon emissions and GHGs
 - Promote carpooling and reduce vehicle miles traveled
 - Promote pedestrian and bicycling commuting
 - Expand transit opportunities
 - Promote programs and designs that reduce traffic congestion
- ▶ Planning and Construction
 - Promote the design of sustainable communities
 - Encourage pedestrian/cycling-incentive planning
 - Encourage energy-efficient development
- ▶ Energy
 - Promote the use of alternative fuels and fuel conservation programs
 - Promote clean, energy-efficient heating and cooling

El Dorado County General Plan

The El Dorado County General Plan does not specifically include policies or goals to reduce GHG emissions. However, the General Plan provides countywide goals and policies aimed at improving energy efficiency, transportation efficiency, and reducing air emissions, all of which would reduce or sequester GHGs. Such policies include the following:

- ▶ **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 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.

3.7.2 Environmental Setting

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

The Physical Scientific Basis of Greenhouse Gas Emissions and Climate Change

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remain stored in the atmosphere (IPCC 2013).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is considered to be enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

Greenhouse Gas Emissions Sources and Sinks

Emissions of CO₂ are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices, landfills, and forest fires. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water) and are two of the most common processes for removing CO₂ from the atmosphere.

Effects of Climate Change on the Environment

According to the Intergovernmental Panel on Climate Change (IPCC), which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 3.7 to 4.8 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014:10). According to *California's Fourth Climate Change Assessment*, with global GHGs reduced at a moderate rate California will experience average daily high temperatures that are warmer than the historic average by 2.5°F from 2006 to 2039, by 4.4°F from 2040 to 2069, and by 5.6°F from 2070 to 2100; and if GHG emissions continue at current rates then California will experience average daily high

temperatures that are warmer than the historic average by 2.7°F from 2006 to 2039, by 5.8°F from 2040 to 2069, and by 8.8°F from 2070 to 2100 (OPR et al. 2018).

Since its previous climate change assessment in 2012, California has experienced several of the most extreme natural events in its recorded history: a severe drought from 2012 to 2016, an almost non-existent Sierra Nevada winter snowpack in 2014-2015, increasingly large and severe wildfires, and back-to-back years of the warmest average temperatures (OPR et al. 2018). According to California Natural Resource Agency's *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2018). According to the National Oceanic and Atmospheric Administration (NOAA) and the National Aeronautics and Space Administration (NASA), 2016, 2017, and 2018 were the hottest recorded years in history (NOAA 2019). In contrast, the northern Sierra Nevada experienced one of its wettest years on record during the 2016-2017 water year (CNRA 2018). The changes in precipitation exacerbate wildfires throughout California through a cycle of high vegetative growth coupled with dry, hot periods which lowers the moisture content of fuel loads. As a result, the frequency, size, and devastation of forest fires have increased. In November 2018, the Camp Fire destroyed the town of Paradise in Butte County and caused 85 fatalities, becoming the state's deadliest fire in recorded history, and the largest fires in the state's history have occurred in the 2018–2020 period. Moreover, changes in the intensity of precipitation events following wildfires can also result in devastating landslides. In January 2018, following the Thomas Fire, 0.5 inch of rain fell in 5 minutes in Santa Barbara causing destructive mudslides formed from the debris and loose soil left behind by the fire. These mudslides resulted in 21 deaths.

As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and the Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet and the glaciers atop Greenland, the sea level along California's coastline is expected to rise 54 inches by 2100 if GHG emissions continue at current rates (OPR et al. 2018).

Temperature increases and changes to historical precipitation patterns will likely affect ecological productivity and stability. Existing habitats may migrate from climatic changes where possible, and those habitats and species that cannot retreat will be severely threatened. Altered climate conditions will also facilitate the movement of invasive species to new habitats, thus potentially outcompeting native species. Altered climatic conditions dramatically endanger the survival of arthropods (e.g., insects, spiders) which could have cascading effects throughout ecosystems (Lister and Garcia 2018). Conversely, a warming climate may support the populations of other insects such as ticks and mosquitos, which transmit diseases harmful to human health such as the Zika virus, West Nile virus, and Lyme disease (European Commission Joint Research Centre 2018).

Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure, crop production, forests and rangelands, and public health (CNRA 2018; OPR et al. 2018). The effects of climate change will also have an indirect adverse impact on the economy as more severe natural disasters cause expensive physical damage to communities and the state.

Additionally, adjusting to the physical changes associated with climate change can produce mental health impacts such as depression and anxiety.

GREENHOUSE GAS EMISSION SOURCES

In 2021, emissions from statewide emitting activities were 381.3 MMTCO_{2e}, 12.6 MMTCO_{2e} higher than 2020 levels and 49.7 MMTCO_{2e} below the 2020 GHG Limit of 431 MMTCO_{2e}. In 2014, statewide GHG emissions dropped below the 2020 GHG Limit and have remained below the Limit since that time. Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 metric tons per person to 9.7 metric tons per person in 2021, a 30.0 percent decrease. Overall trends in the AB 32 GHG Inventory also continue to demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product (GDP)) is declining. The continuation of the downward GHG emissions trend from 2021 to 2022 indicates that the increase in

emissions from 2020 to 2021 is likely an anomaly caused by broader economic trends related to the COVID-19 pandemic and associated recovery (CARB 2023).

As discussed previously, GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2021 was 381.3 million metric tons of CO₂ equivalent (MMTCO₂e) (CARB 2023). Table 3.7-1 summarizes the statewide GHG inventory for California.

Table 3.7-1 Statewide GHG Emissions by Economic Sector

Sector	Percent
Transportation	39
Industrial	22
Electricity generation (in state)	11
Electricity generation (imports)	5
Agriculture	8
Residential	8
Commercial	6
Not specified	<1

Source: CARB 2023.

As shown in Table 3.7-1, transportation, industry, and electricity generation are the largest GHG emission sectors.

In El Dorado County, the primary source of GHG is fossil fuel combustion mainly in the transportation sector (estimated at 70 percent of countywide GHG emissions). Second are residential sources (approximately 20 percent), and commercial/industrial sources are third (approximately 7 percent). The remaining sources are waste/landfill (approximately 3 percent) and agricultural (<1 percent) (El Dorado County n.d.)

Emissions of CO₂ are byproducts of fossil fuel combustion. Emissions of methane primarily result from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution, respectively, two of the most common processes for removing CO₂ from the atmosphere.

3.7.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Short-term construction-generated GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1.1.21, as recommended by the El Dorado County Air Quality Management District (EDCAQMD) and other air districts in California (CAPCOA 2023). Based on the anticipated land use types (i.e., single-family residential, clubhouse, park), roadway size (3 miles), and phasing buildout, construction-related GHG emissions were estimated for each year that construction would occur. Construction was assumed to occur beginning in 2025 and ending in 2030.

Operation-related emissions of GHGs were estimated using CalEEMod for the following sources: area sources (e.g., landscape maintenance equipment), energy use (i.e., electricity consumption), water use, solid waste generated, and mobile sources. Operation-related mobile-source GHG emissions were modeled based on the estimated vehicle miles traveled (VMT) which were derived from traffic study prepared for the project (Kimley-Horn 2023). Mobile-source emissions were calculated using CalEEMod. Indirect emissions associated with electricity consumption were estimated using GHG emissions factors for Pacific Gas and Electric (PG&E), the utility provider in the project area. Electricity and natural gas demand, wastewater consumption, and waste generation were based on model defaults.

Detailed model assumptions and inputs for these calculations are presented in Appendix B.

THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently cumulative, as the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the project's impact on climate change is addressed as a cumulative impact.

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans, and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Under Appendix G of the State CEQA Guidelines, implementing a project would result in a cumulatively considerable contribution to climate change if it would:

- ▶ generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- ▶ conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

In California, some counties, cities, and air districts have developed guidance and thresholds for determining the significance of GHG emissions that occur within their jurisdiction. El Dorado County is the CEQA lead agency for the project and is, therefore, responsible for determining whether an impact would be considered significant.

EDCAQMD currently does not have recommended GHG thresholds or guidance based on the statewide GHG target mandated by SB 32. Also, at the time of writing this Draft EIR, El Dorado County does not have an adopted Climate Action Plan (CAP) consistent with State CEQA Guidelines Section 15185.5(b). Thus, no applicable local plan relating to the regulation of GHGs is available to evaluate GHGs associated with the project.

With respect to GHG emissions, CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions. Section 15064.4(a) provides that a lead agency will make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Section 15064.4(a) further provides that a lead agency will have the discretion to determine, within the context of a particular project, whether to quantify GHG emissions from a project or rely on qualitative analysis or performance-based standards. Pursuant to the CEQA Guidelines in Section 15064.4(a), the analysis presented herein quantifies GHG emissions resulting from the project and describes, calculates, and estimates those emissions. CEQA Guidelines Section 15064.4(b) provides that when assessing the significance of impacts from GHG emissions, a lead agency should focus the analysis on the incremental contribution of the project's emissions to the effects of climate change and consider an appropriate timeframe for the project. The lead agency's analysis should reasonably reflect evolving scientific knowledge and state regulatory schemes and consider (1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, (2) whether the project's GHG 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. The analysis of the potential impacts of the project's GHG emissions follows this approach.

The State CEQA Guidelines do not provide numeric or quantitative thresholds of significance for evaluating GHG emissions. Instead, they leave the determination of the significance threshold up to the lead agency and give it the discretion to consider thresholds previously adopted or recommended by other public agencies or experts, provided that the lead agency's decision is supported by substantial evidence (CEQA Guidelines Sections 15064.7[b] and 15064.7[c]). Additionally, any public agency may also use an environmental standard as a threshold of significance, as it would promote consistency in significance determination and integrate environmental review with other environmental program planning and regulations (CEQA Guidelines Section 15064.7[d]).

In California, when numerical GHG thresholds are established, they are developed based on the overall statewide GHG emissions reduction targets that have been legislated but are adjusted based on anticipated growth and development in a particular region such that when a project meets the established threshold, it can be said that a project is also consistent with the established state's GHG target on which the threshold was based. The State's targets are based on future milestone years (i.e., 2030, 2045, and 2050); thus, by default, the local thresholds must also be based on the same targets.

EO B-55-18 establishes a goal to achieve statewide carbon neutrality as soon as possible and no later than 2045, and EO S-03-05 has set forth a long-term reduction target to reduce GHG emissions by 80 percent below 1990 levels by 2050. AB 1279, which was signed into law on September 16, 2022, requires the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter, and to ensure that by 2045, statewide anthropogenic GHG emissions are reduced to at least 85 percent below the 1990 levels. The proposed project would be phased over many years, with full buildout expected by 2040.

Because EDCAQMD currently does not recommend numerical GHG thresholds or guidance based on the statewide GHG target mandated by SB 32 or AB 1279, nor has it adopted a CAP consistent with State CEQA Guidelines Section 15185.5(b), numerical thresholds from other air districts may be used to assess project related GHG impacts. The Sacramento Metropolitan Air Quality Management District (SMAQMD) has issued guidance for addressing GHG emissions in CEQA documents (SMAQMD 2021).

According to the SMAQMD CEQA Guidelines, for land use development projects, it is recommended that lead agencies compare the project's estimated construction-related GHG emissions to the SMAQMD's threshold of significance of 1,100 MTCO₂e per year (SMAQMD 2021).

Regarding operations, SMAQMD recommends that a project's annual operational GHG emissions in the first year of full operation be compared to SMAQMD's operational screening levels table (equivalent to 1,100 metric tons of CO₂e per year), including implementation of Tier 1 Best Management Practices (BMPs) (described below). If project emissions exceed the land use screening levels table (equivalent to 1,100 metric tons of CO₂e per year) after implementation of Tier 1 BMPs, the project is required to implement Tier 2 BMP 3 (described below).

Using SMAQMD's guidance, the project would result in a cumulatively significant climate change effect if it would:

- ▶ generate construction emissions exceeding 1,100 MTCO₂e/year for any year of construction.
- ▶ generate operational emissions exceeding 1,100 MTCO₂e/year following the implementation of SMAQMD's Tier 1 BMPs:
 - BMP 1 – Projects shall be designed and constructed without natural gas infrastructure.
 - BMP 2 – Projects shall meet the current CalGreen Tier 2 standards, except all EV-capable spaces shall instead be EV ready.
- ▶ Fail to achieve the VMT reduction targets of SMAQMD's Tier 2 BMP 3 set forth by OPR under SB 743, which requires that residential projects achieve a 15 percent VMT reduction compared to the existing county regional average.

Notably, while SMAQMD's guidance was developed in consideration of nearer-term statewide GHG reduction goals (i.e., a 40 percent reduction from 1990 statewide inventory by 2030), SMAQMD's recommended BMPs are highly reflexive of the Bay Area Air Quality Management District's (BAAQMD's) thresholds for determining significance in its 2022 CEQA Air Quality Guidelines. As stated in its Justification Report, BAAQMD's thresholds were designed to ensure that local governments do their "fair share" to contribute to the statewide goal of achieving carbon neutrality by 2045, as codified in AB 1279 (BAAQMD 2022). 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, 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 (CARB 2022).

Because SMAQMD's Tier 1 and Tier 2 BMPs would result in building decarbonization, VMT reductions, and the infrastructure to support EVs, they are considered appropriate thresholds for use in this analysis.

Additionally, the 2022 Scoping Plan explains that, "[a]bsent consistency with an adequate, geographically specific GHG reduction plan such as a CEQA-qualified CAP, ... the first approach the State recommends for determining whether a proposed residential or mixed-use residential development would align with the State's climate goals is to examine whether the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing" (CARB 2022).

ISSUES NOT DISCUSSED FURTHER

All issues pertaining to GHGs are addressed in this analysis.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment or Conflict With an Applicable Plan, Policy or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases?

The project would result in GHG emissions during both construction and operational phases. Project-generated construction emissions would not exceed SMAQMD's 1,100 MTCO₂ per year screening level; however, the project would not comply with the Tier 1 BMPs recommended by SMAQMD regarding electric development (BMP 1) and EV charging (BMP 2). Therefore, the project would be required to meet the criteria of SMAQMD's Tier 2 BMP 3 which requires that the project meets the VMT reduction targets directed by OPR as legislated by SB 743. The project would not meet this target. For these reasons, this impact would be **significant**.

GHG emissions associated with the project would be generated during both construction and operational activities, which are discussed separately, below.

Construction

Construction-related activities would generate GHG emissions from the use of heavy-duty off-road equipment, materials transport, and worker commute trips associated with on-site development and proposed off-site roadway and infrastructure improvements. Construction would occur over an approximately 60-month period, with construction activities commencing in April 2025 and concluding in March 2030. Table 3.7-2, below, summarizes emissions for each year, and provides an annual average, and annual maximum emissions estimate. Refer to Appendix B for construction assumptions and detailed input parameters and results.

Table 3.7-2 Project-Generated Construction Greenhouse Gas Emissions

Construction Year	GHG Emissions (MTCO ₂ e per year)
2025	831
2026	769
2027	761
2028	753
2029	569
2030	15
Total	3,698
Average Annual	612
Maximum Annual	831
SMAQMD Screening Threshold	1,100
Exceeds Threshold?	No

Notes: GHG = greenhouse gas; MTCO₂e per year = metric tons of carbon dioxide equivalent per year.

Source: Modeled by Ascent in 2023.

As shown in Table 3.7-2, the average and maximum annual levels of GHG emissions generated by project construction would be 612 MTCO₂e and 831 MTCO₂e, respectively. This would be below SMAQMD's screening threshold of 1,100 MTCO₂e.

Operations

Project operation would result in the generation of long-term GHG emissions from energy use (i.e., electricity and natural gas), vehicle trips, water-related energy consumption associated with water use and the conveyance and treatment of wastewater, and waste-generated emissions from the disposal of solid waste. The project would include solar PV panels, per California Building Code, which would generate approximately 3,000 megawatt hours per year (MWh/year) and comply with the mandatory minimum requirements of Section 110.10 of the California Energy Code. The first year of project operation (i.e., the first full year of project operation following the cessation of construction activities) is assumed to be 2031. Table 3.7-3 below summarizes the projected operational GHG emissions.

Table 3.7-3 Project-Generated Operational Greenhouse Gas Emissions

Emissions Source	GHG Emissions (MTCO ₂ e/year)
Mobile	2,309
Area	170
Energy	1,344
Water	43
Waste	322
Refrigerants	1
Subtotal	4,189
Emissions Reduction from Solar PV Panels ¹	-209
Total	3,980
SMAQMD Screening Threshold	1,100
Exceeds Threshold?	Yes

Notes: Totals may not add due to rounding; GHG = greenhouse gas; MTCO₂e/year = metric tons of carbon dioxide equivalent per year.

¹ Emissions reduction from use of solar PV panels as required by Section 110.10 of the California Energy Code

Source: Modeled by Ascent in 2023.

As shown in Table 3.7-3, operational emissions would exceed SMAQMD's screening level of 1,100 MTCO₂e/year. SMAQMD requires that all land use development projects proposed incorporate Tier 1 BMPs (i.e., building electrification and EV charging meeting the Tier 2 requirements of the most recent CalGreen Code); however, these are not specified in the project description.

As stated above, the project by design would not be fully electric (i.e., would include natural gas). Therefore, the project would not comply with the requirements of SMAQMD's Tier 1 BMP 1 which requires that projects shall be designed and constructed without natural gas infrastructure. CARB identifies building decarbonization as a key priority area for the state to target to achieve its GHG reduction goals. Therefore, the project would not demonstrate that it is doing its "fair share" in assisting the state in achieving its long-term GHG reduction targets.

Additionally, while the project would comply with the mandatory requirements of CalGreen, the project would not meet CalGreen Tier 2 criteria to comply with SMAQMD's Tier 1 EV BMP 2, which requires that projects meet the most recent CalGreen Tier 2 standards. As identified in the 2022 Scoping Plan, transportation decarbonization is identified as a key priority area to assist the state in meeting its GHG emissions reduction targets. One of the most effective ways to reduce transportation-related GHG emissions is the deployment of EV charging stations in new developments to facilitate the transition of internal combustion engine-powered vehicles to EVs. The most recent 2022 CalGreen Tier 2 requirements for single-family residential development, for EV charging, require that each unit have a dedicated 208/240-volt branch circuit installed in the raceway required by Section 4.106.4.1.

Lastly, as discussed in the transportation section, the project would also fail to achieve the VMT reduction targets of SMAQMD's Tier 2 BMP 3 set forth by OPR under SB 743, which requires that residential, projects achieve a 15 percent VMT reduction compared to the existing county regional average.

Summary

Because the project would not meet SMAQMD's Tier 1 BMPs (i.e., 1 and 2) and Tier 2 BMP, the project would have a **significant** contribution to climate change.

Mitigation Measures

Implement Mitigation Measure 3.14-2: Implement a Transportation Demand Management Program

Mitigation Measure 3.7-1a: Install CalGreen Tier 2-Compliant On-Site Electric Vehicle Charging Infrastructure

Prior to the issuance of construction permits, the project applicant shall incorporate the appropriate number of EV charging equipment to meet the Tier 2 requirements of Part 6 of the Title 24 California Building Code (CalGreen code) in effect at the time of project construction. Requirements by project component, are as follows:

Residential Parking:

For each dwelling unit, a dedicated 208/240-volt branch circuit shall be installed in the raceway (i.e., the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) required by Section 4.106.4.1 of the CalGreen Code. The branch circuit and associated overcurrent protective device shall be rated at 40 amperes minimum. Other electrical components, including a receptacle or blank cover, related to this section shall be installed in accordance with the California Electrical Code.

Clubhouse Parking:

Based on the total number of parking spaces included in the design of the proposed clubhouse, the applicant shall use Table A5.106.5.3.2 in Appendix A5 "Nonresidential Voluntary Measures" of the CalGreen Code to determine the number of EV capable spaces required for the club house land use in order to meet the Tier 2 requirement. The applicant must install the appropriate number of EV capable spaces to comply with the required number of spaces determined by Table A5.106.5.3.2.

Mitigation Measure 3.7-1b: Decarbonize Residential and Clubhouse Buildings or Purchase Offsets

The applicant shall ensure that the project would be constructed without natural gas infrastructure. The County shall be responsible for ensuring that the applicant has met the conditions of this measure prior to the issuance of permits, as demonstrated in plan submittals for County review and approval.

OR, if the implementation of the above is deemed to be economically or technically infeasible, the project at a minimum shall have all-electric appliances (e.g., heating and cooling systems, stoves/ovens, dishwashers, and water heaters) **AND** purchase carbon offsets to minimize the project's emissions from natural gas combustion as detailed below.

To the degree that a project relies on GHG mitigation measures, the County, EDCAPCD, and CARB recommend that lead agencies prioritize on-site design features, such as those listed under Mitigation Measures 3.7-1a and 3.7-1b and direct investments in GHG reductions within the vicinity of the project site to provide potential air quality and economic co-benefits locally. While emissions of GHGs and their contribution to climate change is a global problem, emissions of air pollutants, which have an adverse localized effect, are often emitted from similar activities that generate GHG emissions (i.e., mobile, energy, and area sources). For example, direct investment in a local building retrofit program could pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project. Other examples of local direct investments include financing the installation of regional EV charging stations, paying for electrification of public school buses, and investing in local urban forests. These investments would not only achieve GHG reductions but would also directly improve regional and local ambient air quality. However, to adequately mitigate GHG emissions by 27,120 MTCO₂e (30 years of GHG emissions), it is critical that any such investments in actions to reduce GHG emissions meet the criteria of being 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). Such credits shall be based on protocols approved by the California Air Resources Board (CARB), consistent with Section 95972 of Title 17 of the California Code of Regulations. 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) through the California Air Pollution Control Officers Association's (CAPCOA's) GHG Rx and EDCAPCD.

Prior to issuing building permits for project development, the County shall confirm that the project developer has fully offset the project's remaining GHG emissions from natural gas combustion by relying upon one of the following compliance options, or a combination thereof:

- ▶ demonstrate that the project developer has directly undertaken or funded activities that reduce or sequester GHG emissions that are estimated to result in GHG reduction credits (if such programs are available), and retire such GHG reduction credits in a quantity equal to the project's remaining GHG emissions;
- ▶ provide a guarantee that it shall retire carbon credits issued in connection with direct investments (if such programs exist at the time of building permit issuance) in a quantity equal to the modified Phase 2 Project's remaining GHG emissions;
- ▶ undertake or fund direct investments (if such programs exist at the time of building permit issuance) and retire the associated carbon credits in a quantity equal to the modified Phase 2 Project's remaining GHG emissions; or
- ▶ if it is impracticable to fully offset the project's GHG emissions through direct investments or quantifiable and verifiable programs do not exist, the project developer or its designee may purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry in a quantity equal to the project's remaining GHG Emissions.

Significance after Mitigation

Overall, implementation of Mitigation Measures 3.7-1a would result in the project complying with the Tier 1 BMP 2. Additionally, project compliance with Mitigation Measure 3.7-1b would comply with Tier 1 BMP 1 or offsetting the emissions from the combustion of natural gas (i.e., approximate reduction of 27,000 MTCO_{2e} over 30 years). However, though implementation of Mitigation Measure 3-14-2 would reduce VMT but not to a level in compliance with the Tier 2 BMP 3 and, as shown in Table 3.7-4 below, operational emissions related to the project continue to exceed SMAQMD's screening threshold of 1,100 MTCO_{2e} per year despite the application of mitigation.

Table 3.7-4 Project-Generated Operational Greenhouse Gas Emissions (Mitigated)

Emissions Sector	MTCO _{2e} /year
Mobile	2,309
Area	48
Energy	759
Water Consumption and Wastewater Treatment	43
Solid Waste Generation	322
Refrigerants	1
Total	3,481
SMAQMD Threshold ¹	1,100
Threshold Exceeded?	Yes

Notes: MTCO_{2e} = metric tons of carbon dioxide equivalent; SMAQMD = Sacramento Metropolitan Air Quality Management District. Totals may not sum due to rounding.

¹ SMAQMD applies a 1,100 MTCO_{2e} per year screening threshold to projects that comply with its recommended Tier 1 BMPs, which entail designing projects to be fully electric and providing the necessary EV charging infrastructure to meet the Tier 2 voluntary standards of the current CALGreen Code for EV-capable spaces.

Source: Modeling performed by Ascent in 2024.

Notably, some natural gas would still be required for pool heating as part of the “health club” land use used in the modeling. Generally, it is not considered feasible to heat large community pools with electricity alone; therefore, natural gas was assumed to still be used for that purpose. However, the primary contributor to the project’s exceedance of SMAQMD’s screening threshold remains the mobile source sector. Because operational emissions would continue to exceed SMAQMD’s 1,100 MTCO₂e screening threshold despite compliance with SMAQMD’s Tier 1 BMP 1 and BMP 2, the project would be required to implement Mitigation Measure 3.14-2 to comply with SMAQMD’s Tier 2 BMP 3. Mitigation Measure 3.14-2 would require that the applicant develop a Transportation Demand Management (TDM) program for the project. Despite the application of Mitigation Measure 3.14-2, the project would not comply with the requirements of SMAQMD’s Tier 2 BMP 3 because, as noted in Section 3.14 “Transportation”, participation in the TDM program is not guaranteed and the effectiveness of VMT reduction strategies and the extent to which VMT would be reduced is not certain. Therefore, the project would not meet the requirements of SMAQMD’s Tier 1 BMPs 1 and 2, or Tier 2 BMP 3.

Therefore, this impact would be **significant and unavoidable**.

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3.8 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential impacts of the Generations at Green Valley (project) related to hazards and hazardous materials. The reader is referred to Sections 3.2, "Air Quality," and 3.6, "Geology, Soils, and Paleontological Resources," for a discussion and analysis of naturally occurring asbestos. Wildfire and evacuation are addressed in Section 3.16, "Wildfire and Evacuation." A source of information used for this analysis is the Phase I Environmental Site Assessment (2011 Phase I ESA) prepared for the Dixon Ranch project (Youngdahl 2011), as well as the Phase I ESA (2024 Phase I ESA) prepared for the project (Terraphase Engineering 2024). The 2024 Phase I ESA is provided in Appendix E.

No comments related to hazards and hazardous materials were received in response to the Notice of Preparation (NOP) for the project. The NOP and comments submitted in response to it are included in Appendix A.

3.8.1 Regulatory Setting

FEDERAL

Management of Hazardous Materials

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, as well as requiring measures to prevent or mitigate injury to health or the environment if such materials are accidentally released. The US Environmental Protection Agency (EPA) is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are primarily contained in Code of Federal Regulations (CFR) Titles 29, 40, and 49. Hazardous materials, as defined in the Code, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws.

- ▶ The Toxic Substances Control Act of 1976 (15 US Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- ▶ The Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal ("cradle to grave").
- ▶ The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act or CERCLA) (42 USC 9601 et seq.) gives EPA authority to seek out parties responsible for releases of hazardous substances and ensure their cooperation in site remediation.
- ▶ The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499; USC Title 42, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.

Transport of Hazardous Materials

The U.S. Department of Transportation regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law, 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act 49 USC 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials transport regulations are enforced by the Federal Highway Administration, the U.S. Coast Guard, the Federal Railroad Administration, and the Federal Aviation Administration.

Worker Safety

The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9 USC 651 et seq.). OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials and those required for excavation and trenching.

Toxic Release Inventory

The EPCRA and the Pollution Prevention Act of 1990 established a publicly available database that has information on toxic chemical releases and other waste management activities called the Toxic Release Inventory (TRI). It is available to the public to review. The TRI is updated annually and lists chemical releases by industry groups and federal facilities managed by EPA.

Federal Aviation Administration

Through Title 14 of the Code of Federal Regulations Part 77 (14 CFR 77), the Federal Aviation Administration (FAA) establishes standards and notification requirements for objects affecting navigable airspace. This notification serves the basis for evaluating the effect of construction or alteration from projects on FAA operating procedures; determining the potential hazardous effect of proposed construction on air navigation; identifying mitigation measures to enhance safe air navigation; and charting new objects (FAA 2023a). Notification allows the FAA to identify potential aeronautical hazards in advance, thus preventing or minimizing the adverse impacts to the safe and efficient use of navigable airspace.

14 CFR 77

Part 77 of Title 14 of the Code of Federal Regulations outlines the safe, efficient use, and preservation of navigable airspace. The purpose of 14 CFR 77 is to establish: (a) requirements to provide notification to the FAA of certain proposed construction, or the alteration of existing structures; (b) the standards used to determine obstruction to air navigation, and navigational and communication facilities; the process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities, or equipment; and (d) the process to petition the FAA for discretionary review of determinations, revisions, and extensions of determinations (14 CFR 77 2023).

STATE

Management of Hazardous Materials

In California, both federal and state community right-to-know laws are coordinated through the Governor's Office of Emergency Services. The federal law, SARA Title III or EPCRA, described above, encourages and supports emergency planning efforts at the state and local levels and to provide local governments and the public with information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- ▶ emergency planning,
- ▶ emergency release notification,
- ▶ reporting of hazardous chemical storage, and
- ▶ inventory of toxic chemical releases.

The corresponding state law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, qualifying businesses are required to prepare a Hazardous Materials Business Plan, which would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment. At such time as the

applicant begins to use hazardous materials at levels that reach applicable state and/or federal thresholds, the plan is submitted to the administering agency.

The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency, has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the State, known as the Cortese List. Individual regional water quality control boards (RWQCBs) are the lead agencies responsible for identifying, monitoring, and cleaning up leaking underground storage tanks (USTs).

Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan

The State of California has adopted U.S. Department of Transportation regulations for the movement of hazardous materials originating within the state and passing through the state; state regulations are contained in Title 26 of the CCR. State agencies with primary responsibility for enforcing state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the Governor's Office of Emergency Services, which coordinates the responses of other agencies in the project area.

Management of Construction Activities

Through the Porter-Cologne Water Quality Act and the National Pollution Discharge Elimination System (NPDES) program, RWQCBs have the authority to require proper management of hazardous materials during project construction. For a detailed description of the Porter-Cologne Water Quality Act, the NPDES program, and the role of the Central Valley RWQCB, see Section 3.9, "Hydrology and Water Quality."

The State Water Board adopted the statewide NPDES General Permit in August 1999. The state requires that projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management plans (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are typically more stringent than federal OSHA regulations and are presented in Title 8 of the CCR. Cal/OSHA conducts on-site evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

Certified Unified Program Agency Program

In the 1990s, the regulation of hazardous materials and local emergency response was spread across more than one thousand local and state agencies in California alone. The Certified Unified Program Agency (CUPA) Program was created by Senate Bill 1082 in 1993 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency management programs (CalCUPA Forum 2023). The CUPA Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. Cities and counties can apply to become a CUPA and receive delegated authority from state agencies to enforce laws in their jurisdiction. The El

Dorado County Department of Environmental Management, Hazardous Waste Division, is approved by the California Environmental Protection Agency as the CUPA for El Dorado County (El Dorado County 2023a).

LOCAL

El Dorado County General Plan

The Public Health, Safety, and Noise Element of the El Dorado County General Plan sets forth planning strategies for fire hazards, seismic hazards, flood hazards, noise, hazardous materials, air quality, airport safety, and highway safety (El Dorado County 2024). This includes objectives and policies focused on protecting residents from existing and potential hazards in El Dorado County. Hazards and hazardous materials objective, and policies applicable to the project include the following:

- ▶ **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.
- ▶ **Objective 6.8.1:** Safety Hazards Exposure. Minimize the public's exposure to airport-related safety hazards by requiring new development around airports to be compatible with that use.
 - **Policy 6.8.1.1:** All development within the Airport Influence Area of the Placerville Airport, the Cameron Airpark Airport, and the Georgetown Airport shall comply with El Dorado County Airport Land Use Commission's policies and maps as set forth in the Airport Land Use Compatibility Plan for each airport. All development within the Airport Influence Area of the South Lake Tahoe Airport shall comply with the Airport Land Use Compatibility Plan (ALUCP) for the areas around the South Lake Tahoe Airport. Where there is a difference between the County development standards and the development standards of the Airport Land Use Compatibility Plan, as applied to proposed development, the standards that will most reduce airport-related hazards shall apply. (Resolution 124-2019, August 6, 2019.)

El Dorado County Emergency Operation Plan

The El Dorado County Emergency Operations Plan (EOP) addresses the county's planned response to emergency situations covering severe weather (wildfire, flooding), hazardous materials incidents, dam failure, landslide/avalanche, structure fire/explosion, earthquake, civil unrest, terrorism, nuclear risk, mass casualty incidents, transportation emergencies, school emergencies, public health emergencies, and agricultural disasters (El Dorado County 2023b). The EOP is the principal guide for county agencies and other local government entities to prevent, prepare, respond, and recover from emergency disasters affecting the county and is intended to facilitate multi-agency and multi-jurisdictional coordination, particularly between local, state, and federal agencies in emergency operations. The EOP also provides guidance for those with emergency management responsibility within the county and provides yearlong preparedness, guidance, and well as specific guidance to those activated in the event of an emergency to save lives, enhance the health of citizens, protect property, and the environment (El Dorado County 2023b).

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. This 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; Hazardous Materials unit, which addresses the implementation of hazardous materials and household hazardous waste programs to ensure proper management and disposal; and the Solid Waste unit, which 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 (El Dorado County 2023c).

El Dorado County Hazardous Waste Management Plan

In 1990, California counties prepared hazardous waste management plans to identify potential areas for the siting of hazardous waste facilities. The El Dorado County Hazardous Waste Management Plan (CHWMP) was prepared in accordance with the California Department of Health Services guidelines (El Dorado County 2023d). The goals of the CHWMP are to (1) protect the health, safety, and property of the residents and visitors of El Dorado County and minimize damage to the environment from the adverse effects of hazardous wastes while maintaining the economic viability of the County and the State; (2) to manage hazardous wastes in a way that is consistent with sound management approaches in this order of priority: source reduction, recycling and reuse, treatment (on-site and off-site), and residuals disposal; (3) to develop a plan that will fulfill the criteria established by California Department of Health and Safety to meet State legislated local hazardous waste management plans (AB 2948, Tanner) and acquire the funding sources to implement the plan; and (4) to assess and accommodate the current and future needs for hazardous waste management practices and facilities for proper recycling, transfer, treatment, and storage of hazardous wastes, and disposal of treated residuals (El Dorado County 1990). The CHWMP was published in 1990, and the majority of the activities identified in the plan have since been implemented.

Hazardous Materials Emergency Response Program

The Hazardous Materials Emergency Response Program is a 24-hour on-call service that provides a safe and efficient emergency response to hazardous materials events in the county (El Dorado County 2024a). The Solid Waste and Hazardous Materials Division leads this program, with close coordination with law enforcement, fire and health agency officers, and staff. Special attention is given to the oversight of hazardous materials used and transported frequently in the county by local businesses, and preparedness activities and training is provided for possible biological, nuclear, incendiary, chemical, and explosive hazards used in criminal or terrorist activities (El Dorado County 2024a).

Hazardous Materials Area Plan

The Hazardous Materials Area Plan (Area Plan) fulfills the CUPA regulatory requirements, per state law, and can be used as a resource document in conjunction with the El Dorado County Emergency Operations Plan and other state agency plans (El Dorado County 2009). The Area Plan describes the county's pre-incident planning and preparedness for hazardous materials releases, clarifies the roles and responsibilities of federal, state, and local agencies during a hazardous materials incident, and describes the county's hazardous materials incident response program, training, communications, and post-incident recovery procedures (El Dorado County 2009).

Well Construction and Water Supply Standards

Chapter 8.39, Well Construction and Water Supply Standards, of the County's Code of Ordinances includes protective measures to ensure that groundwater will not be polluted or contaminated. Minimum requirements are contained in Chapter 8.39 for the construction, reconstruction, destruction, and repair of water wells, cathodic protection wells, soil borings, monitoring wells, and geothermal heat exchange wells.

3.8.2 Environmental Setting

For purposes of this section, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in the CFR as “a substance or material that ... is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

“Hazardous material” means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

“Hazardous wastes” are defined in California Health and Safety Code Section 25141(b) as wastes that:

...because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

KNOWN AND POTENTIAL CONTAMINATION

In April 2011, Youngdahl Consulting Group, Inc. prepared a Phase I ESA for the Dixon Ranch project previously proposed on-site (Youngdahl 2011). The 2011 Phase I ESA covered a government records review and search of databases; a review of historical sources and aerial photographs, maps, building records; site reconnaissance in March 2011, and client interviews.

In 2024, Terraphase Engineering (Terraphase) prepared a Phase I ESA for the proposed project. The 2024 Phase I ESA covered interviews with past and present owners, operators, and occupants familiar with the project site; reviewed historic sources of information, including, but not limited to, aerial photographs, fire insurance maps, and land use records; reviewed previously conducted environmental studies, government records and databases; reviewed local regulatory agency files, visual inspection of the project site; and reviewed the project site and adjoining property photographs. Although not included in the standards for a Phase I ESA, Terraphase conducted a vapor encroachment screen for the project site in accordance with the American Society for Testing and Materials (ASTM) regulations.

The following is a summary of the findings of both the 2011 Phase I ESA and the 2024 Phase I ESA.

Government Records Review

Youngdahl performed a database search of federal, tribal, state, and local regulatory lists to assess whether documented environmental conditions exist on or near the project site. The project site was not identified on any of these lists. Although four sites were listed within the minimum search distances provided in Appendix B of the 2011 Phase I ESA, none appeared to present a significant potential to impact the existing conditions of the project site.

Terraphase reviewed property listings of the project site and adjoining properties, orphan listings (listings that could not be plotted with confidence but are potentially in the general area of the project site based on a partial street address, city, or zip code), local regulatory (municipal) records, county regulatory records, and state regulatory records to assess whether documented environmental conditions or hazardous substances or petroleum products exist on or near the project site. Out of all these listings and records, two sites were identified in the vicinity of the project site, but both were dismissed as RECs due to a lack of documentation of a release and the relative distance to the project site itself, respectively (see Appendix C of the 2024 Phase I ESA). None of the records reviews indicated that there was a significant potential to impact existing conditions on the project site.

Historical Records Review

Aerial photographs and historical maps were provided (see Appendix B to the 2011 Phase I ESA), which showed this historical progression of development of the project site from the late 1930s as undeveloped land through the 1970s to contemporary time as developed with some residential uses and structures in the northern portion of the site located south of the existing ponds.

The 2024 Phase I ESA confirmed through photographs that by 1940 the project site contained two sets of structures toward the north and northeast indicative of residences or a combination of residential and ancillary storage structures, and that no significant changes were observed until an additional small structure on the northern portion of the project site was built by 1972, with no significant changes until 2006 where a row of crops were depicted on the northern corner of the project site. Contemporary maps show that the project site is currently mixed-use, with rural residential, grazing, and forest land (Terraphase 2024).

Prior Reports

Terraphase reviewed the 2011 Phase I ESA, which only included three of the five project site parcels for the purposes of the current proposed project. Land use for these three parcels included agriculture (strawberry fields), horse and cattle grazing, and an agricultural dumping site. Three empty aboveground fuel storage tanks were observed on one of the agricultural parcels. The 2011 Phase I ESA recommended that the tanks be cleaned and removed from the property. Terraphase did not observe the previously identified fuel tanks on the project site during the 2024 site reconnaissance. Based on the age of the older on-site structures, screening for lead-based paint and asbestos-containing materials prior to residential development was recommended. No RECs were identified for the project site.

Site Reconnaissance

A windshield survey was conducted by Youngdahl in February 2011 and concluded that views of the project site at the time consisted of residential property, undeveloped property, commercial/agricultural/landfill property from agricultural uses and as an agricultural dump site with clean fill from swimming pool excavations, and property used for various agriculture, residential, cattle grazing, horse boarding, and open space uses.

In April 2024, Terraphase conducted site reconnaissance of the project site and documented the site visit with photographs (provided in Appendix A to the 2024 Phase I ESA). Terraphase searched for evidence of the presence, use, or storage of hazardous substances and petroleum products, including, but not limited to, areas of disturbed or discolored soils; suspect equipment and/or building materials which may contain hazardous substances or petroleum products; areas of distressed vegetation; wastewater discharge areas; evidence of storage tanks/septic systems; waste management/disposal areas; lagoons, pits, or sumps; surface water management areas; and stained surfaces.

Most project site buildings and equipment storage areas are located at 1856 Green Valley Road, on the northeastern parcel of the project site, and the following summarizes what was observed:

- ▶ A corroded, wooden equipment shed (no spills or staining were observed; two ponds were observed).
- ▶ A vacant, deteriorating 1,000 square-foot single-family residence was observed, equipped with a distribution transformer with no signs of spills or leaks; and electrical-powered domestic well was located on the south side of the residence, and one empty propane tank observed inside the residence.
- ▶ Various waste, tires, and one empty propane tank were observed in the backyard area southeast of the vacant residence.
- ▶ A pit partially filled with water was observed southwest of the vacant residence.
- ▶ Previously identified fuel tanks associated with the former agricultural operations on-site were not observed during site reconnaissance.
- ▶ A monitoring well was identified that was subsequently identified to likely have been a water supply source for domestic or cattle grazing in the past.

Client Interviews

Based on client interviews with owners and/or occupants, the parcels that comprise the project site have been historically used for residential purposes, horse grazing, a strawberry field, old fuel tank storage, undeveloped land, and a permitted agricultural dump site and swimming pool spoils, and an empty 500 gallon fuel tank. Based on interviews with state and/or local government officials, no records were found documenting the project site on file with the EDCEMD. The State Water Resources Control Board's (SWRCB) GeoTracker website was also searched, but there were no sites under investigation on the project site or in the vicinity of the project site.

During the project site reconnaissance visit, Terraphase conducted an interview with the site manager who has been associated with the project site property since 2009, in addition to contacting regulatory agency representatives. Information provided by the site manager and regulatory agency representatives is discussed in applicable sections of the 2024 Phase I ESA and in Section 5.2 of the 2024 Phase I ESA, respectively. Section 5.2 is discussed in the Government Records Review subheading, above, and the 2024 Phase I ESA.

Adjoining Properties

During reconnaissance, Terraphase observed the adjoining properties from public roadways and the project site. The purpose of these observations was to identify obvious uses or conditions at the adjoining properties likely indicative of a Recognized Environmental Condition (REC) or environmental concern for the project site. As defined by ASTM, a REC is "(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment."

No evidence of RECs was observed at the adjoining properties (Terraphase 2024).

Vapor Encroachment

The purpose of the 2024 Phase I ESA screening was to assess whether a vapor encroachment condition exists from contaminants of concern that may migrate as vapors onto a property as a result of contaminated soil and groundwater on or near the project site. Potential petroleum hydrocarbon sources (i.e., Leaking Underground Storage Tank [LUST] cases) were evaluated for vapor intrusion within 0.10-mile of the project site and volatile organic compound sources (active Spills Leaks and Investigation Cleanup cases) within 0.33-mile of the project site.

No potential petroleum hydrocarbon or volatile organic compound sources were identified within the applied distances (Terraphase 2024).

Conclusion

As a result of the findings of the 2011 Phase I ESA, Youngdahl concluded that no recognized environmental conditions were identified during the review of the project site. There is a potential for lead from lead paint and/or asbestos containing building materials to be present in the older structures on-site. Screening for these contaminants may be required by the local enforcement agency prior to demolition activities. No additional investigation is recommended.

In addition to the 2011 Phase I ESA conclusions, a records search was conducted for the current proposed project. The SWRCB GeoTracker website provides data relating to LUSTs and other types of soil and groundwater contamination, along with associated cleanup activities. LUST cleanup sites include all underground storage tank sites that have had an unauthorized release (i.e., leak or spill) of a hazardous substance, usually fuel hydrocarbons, and are being (or have been) cleaned up. In GeoTracker, LUST sites consist almost entirely of fuel-contaminated LUST sites, which are regulated pursuant to Title 23 of the CCR Chapter 16, Article 11. According to GeoTracker, there are no sites within or surrounding the project site. No LUSTs, cleanup program sites, military cleanup sites, military privatized sites, or military UST sites have been identified on-site or in the vicinity of one-half mile (SWRCB 2024).

As a result of the findings of the 2024 Phase I ESA, Terraphase concluded that no RECs or historical RECs were identified during the review of the project site, and no de minimis conditions were identified. De minimis conditions

do not present a threat to human health or the environment and is not considered a REC. Examples of de minimis conditions could include a small or superficial spill of oil that is not anticipated to cause significant concern. The northeastern portion of the project site has been developed for agricultural use since at least 2006, including the historical operation of row crops. Based on the recent agricultural operation in this area, the likely use of agricultural chemicals (e.g., pesticides, herbicides, fertilizers) potentially accumulating in soils and impacting the subsurface is low and is therefore considered a finding of note and not an environmental condition with the potential to impact existing environmental conditions. No soil sampling is required.

In addition, EnviroStor is the DTSC's data management system for tracking cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reason to investigate further. According to EnviroStor, there are no identified hazardous waste facilities or sites with known contamination or sites where there may be reason to investigate further on-site or in the vicinity of one-half mile of the project site (DTSC 2024).

AIRPORTS

The agency with jurisdiction over managing appropriate development of areas surrounding public airports in El Dorado County is the County's designated Airport Land Use Commission (ALUC), the El Dorado County Transportation Commission (EDCTC). The EDCTC ALUC provides technical and advisory support to the Georgetown and Placerville Airports and the Cameron Park Airport District. The project site is not located within 2 miles of a public airport or public use airport, and, due to this distance, the project site is not located within any of the three Airport Land Use Compatibility Plans (Georgetown, Placerville, and Cameron Park Airport District) for the county. The nearest airport, the Cameron Airpark Airport, is located approximately 2.8 miles southeast of the project site.

However, the project is subject to the FAA 14 CFR 77.9 notification area. Part 77.9 requires proposed structures that exceed certain criteria to file a Notice of Proposed Construction or Alteration with the FAA (Form 7460-1) and undergo an Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) (FAA 2023a). Although the project site is not within 2 miles of a public airport or public use airport, according to the FAA the project site is in proximity to a navigation facility and may impact the assurance of navigation signal reception; as a result, in accordance with 14 CFR 77.9, the project applicant must file the notice at least 45 days prior to the start of construction activities and undergo an OE/AAA (FAA 2023b).

SCHOOLS

There are no existing or proposed schools within 0.25-mile of the project site. The nearest school is Pleasant Grove Middle School, located at 2540 Green Valley Road, approximately 0.84-mile southeast of the project site.

3.8.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following reports and data sources document potential hazardous conditions at the project site and were reviewed for this analysis:

- ▶ review of applicable elements from the El Dorado County General Plan and county websites regarding hazardous materials plans, programs, departments, and emergency operations;
- ▶ the Phase I Environmental Site Assessment for the Dixon Ranch project prepared by Youngdahl Consulting Group Inc., (2011);
- ▶ the Phase I Environmental Site Assessment for the project prepared by Terraphase (2024) provided in Appendix E;
- ▶ and records searches of state (EnviroStor, GeoTracker) and federal (FAA) government databases in 2023.

Project construction and operation were evaluated against the hazardous materials information gathered from these sources to determine whether any risks to public health and safety or other conflicts would occur.

THRESHOLDS OF SIGNIFICANCE

An impact related to hazards and hazardous materials is considered significant if implementation of the project would do any of the following:

- ▶ create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- ▶ create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;
- ▶ emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- ▶ be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- ▶ for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- ▶ implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- ▶ expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

ISSUES NOT DISCUSSED FURTHER IN THIS SECTION

Located on a Site Which Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5

As discussed above in Section 3.8.2 "Environmental Setting," the 2011 and 2024 Phase I ESA's record search and an updated records search of the GeoTracker and EnviroStor databases shows that the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As a result, project implementation would not create a significant hazard to the public or environment due to the presence of known hazardous materials releases (Youngdahl 2011; DTSC 2024; SWRCB 2024). This issue is not discussed further.

Emergency Response / Evacuation Plan

Impacts associated with impairing an adopted emergency response or emergency evacuation plan are evaluated in Section 3.17, "Wildfire and Evacuation."

Wildland Fire

Impacts associated with exposing people or structures, either directly or indirectly, to wildland fires are evaluated in Section 3.17, "Wildfire and Evacuation."

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.8-1: Create a Significant Hazard through Routine Transport, Use, or Disposal of Hazardous Materials or Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment

Project construction activities and subsequent operation would involve hazardous materials. All hazardous materials used would be subject to the federal, state, and local requirements that provide protection measures to avoid impacts to the environment and public health. However, the project would require demolition of existing structures and other construction activities on the site that may contain asbestos building materials, lead paint, and other hazardous materials. This impact would be **significant**.

Existing conditions of the project site consist of undeveloped land consists primarily of grassland vegetation, oak woodlands and scattered oak trees, on-site ponds/creek, and wetland features. Additionally, a corroded wooden equipment shed and vacant, deteriorating single-family residence are located on the northern portion of the project site. The following impact discussion addresses construction and operational aspects of the proposed project.

Construction Activities and Hazardous Materials

Construction of the proposed project would involve the transport, use, storage, and disposal of hazardous materials and petroleum products, such as asphalt, diesel fuel, lubricants, paints and solvents, cleaning agents, and cement products containing strong basic or acidic chemicals, that are commonly used at construction sites. The project's off-site improvements to roadway transportation, water/wastewater distribution and conveyance, and electrical service would occur within existing rights-of-way that contain soil and roadway base material (e.g., aggregate, rock, concrete, asphalt, and soil), water, wastewater, and electrical infrastructure. While not evaluated in the Phase 1 ESAs, hazardous materials are not expected to be encountered during construction of off-site improvements. Nevertheless, there is potential for stained soil or odorous soils to be encountered during construction of off-site improvements.

Construction materials would be transported, handled, stored, and disposed of in accordance with applicable safety laws, regulations, and manufacturers' instructions. For example, construction activities associated with the project would be subject to Cal/OSHA's regulations on the proper handling of hazardous materials and worker safety and training, and subject to the SWRCB's NPDES Construction General Permit (Order WQ 2022-0057-DWQ) (SWRCB 2022) requiring spill prevention and containment plans to avoid spills and releases of hazardous materials and wastes into the environment. In addition, construction Best Management Practices would also be implemented and may include that would be implemented include, for example, the designation of special storage areas and labeling, containment berms, coverage from rain, and concrete washout areas. Further, the US Department of Transportation (USDOT) Office of Hazardous Materials Safety and the California Highway Patrol (CHP) both prescribe strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the CFR. These standard accident prevention and hazardous materials recovery training and procedures are regulatory compliance actions enforced by the state and followed by private state-licensed, certified, and bonded transportation companies and contractors. Regulatory compliance with Cal/OSHA, the SWRCB Construction General Permit, USDOT, and CHP regulations would minimize the potential risk of a spill or accidental release of hazardous materials through routine transport, use, or disposal during construction and protect public health. Therefore, construction hazardous material use impacts would be less than significant.

There are three known groundwater wells located on the project site. One well is located within the proposed Lot 1, which would continue to be used for water supply. The other two wells that were likely used for domestic or watering for cattle grazing would be abandoned as part of the project's construction activities. In accordance with Chapter 8.39, Well Construction and Water Supply Standards, in the County's Code of Ordinances, the construction activities would be required to comply with the procedures in place for well destruction (Section 8.39.320), license required (Section 8.39.110), application procedure (Section 8.39.140), well completion report (Section 8.39.290), and any other applicable sections of Chapter 8.39. Compliance with the County Code of Ordinances would ensure that the project's

construction would not have a significant impact on the environment regarding potential hazardous materials due to the destruction of the two groundwater wells. Materials collected from the destruction of the two groundwater wells would be required to comply with Cal/OSHA, USDOT, and CHP standards when being transported for recycling and disposal. Existing on-site septic systems would be removed and abandoned consistent with County standards.

However, project construction would involve the removal of existing structures on the project site, which include a corroded wooden equipment shed, a vacant, deteriorating single-family residence, and partially filled pit of debris, as observed during the site reconnaissance of the 2024 Phase I ESA. The 2011 Phase 1 ESA identified the potential for lead from lead paint and/or asbestos containing building materials to be present in the older structures on-site. Demolition of these structures could result in release of these materials that could impact public health and the environment. This impact would be potentially significant.

Operational Hazardous Materials

Residential land uses typically do not involve the transport, use, or disposal of significant quantities of hazardous materials. Generally, small quantities of hazardous materials, such as cleaning supplies, paints, oil, grease, disinfectants, fertilizers, and pool chemicals would be used in residential subdivisions for day-to-day operation and routine maintenance. The EDCEMD implements the Household Hazardous Waste Program to protect public health and safety and ensure proper management and disposal of hazardous materials and wastes (El Dorado County 2023b). Implementation of the Household Hazardous Waste Program and adherence to manufacturer's instructions would reduce the potential risk of improper disposal of household hazardous wastes and minimize the impacts related to routine transportation, use, and disposal of hazardous materials and hazardous waste that protect public health. Therefore, operational hazardous material use impacts would be less than significant.

Summary

As described above, project construction and operation would not involve a significant use of hazardous materials and would be subject to federal, state, and local regulations that are intended to avoid impacts and protect public health. However, demolition of existing on-site structures and associated pit could result in the release of hazardous materials. Therefore, this impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.8-1a: Remove Pit Debris and Conduct a Hazardous Building Materials Survey

As part of site preparation for construction, debris identified in the pit near the residence at 1856 Green Valley Road will be removed and disposed of at a permitted landfill facility. Prior to any demolition of structures, A hazardous building materials survey shall be conducted by a qualified and licensed professional for all structures proposed for demolition under the project. All loose and peeling lead-based paint and asbestos-containing material (ACM) shall be abated by certified contractor(s) in accordance with the U.S. Environmental Protection Agency's asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements, which specify mandatory work practices to be followed during demolition and renovation of all structures, installations, and buildings, which protect the public and environment by minimizing the release of asbestos fibers during renovation and demolition activities (El Dorado County 2024b; USEPA 2024). All other hazardous materials shall be removed from buildings prior to demolition in accordance with County CUPA regulations. The completion of abatement activities shall be documented by a qualified environmental professional(s) and submitted to the County for review.

Mitigation Measure 3.8-1b: Require Soil Sampling If Stained Soil or Unusual Soil Odor Is Encountered During Construction of Off-Site Improvements

If stained soils or unusual soil odors are encountered, halt work conditions would be implemented on the portions of the area with stained or odorous soils and a qualified geotechnical soils engineer shall conduct soil sample testing to confirm if there are any constituents that exceed established screening level thresholds. If any screening level thresholds are exceeded, the applicant shall coordinate with the County and other applicable regulatory agencies (e.g., Regional Water Quality Control Board and Department of Toxic Substances Control) to remediate the extent of soil contamination until such contamination is below all acceptable constituent screening levels.

Significance after Mitigation

Implementation of Mitigation Measure 3.8-1a would reduce this potential hazard impact by inspecting structures to be demolished and removal and disposal of hazardous building materials in a manner consistent with applicable standards that protect public health and the environment. Application of this mitigation measure would be consistent with General Plan Objective 6.6.1 and associated Policy 6.6.1.2. Implementation of Mitigation Measure 3.8-1b would reduce this potential hazard impact by ensuring that any encountered contaminated soils during construction of off-site improvements would be remediated to the satisfaction of DTSC's requirements and established screening levels. Application of this mitigation measure would be consistent with General Plan Objective 6.6.1. Implementation of both Mitigation Measure 3.8-1a and 3.8-1b would reduce this impact to **less than significant**.

Impact 3.8-2: Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials, Substances, or Waste within 0.25 Miles of an Existing or Proposed School

Although there are no schools within 0.25-mile of the project site, construction materials (which would include hazardous materials) may be transported to the project site using local public streets, and as such, hazardous materials in association with the construction of the project may be handled via transport within 0.25-mile of an existing or proposed school located along these local public streets. Nevertheless, the handling and transportation of hazardous materials during construction would be subject to the requirements of the USDOT, and CHP. This impact would be **less than significant**.

There are no existing or proposed schools within 0.25-mile of the project site. The nearest school is Pleasant Grove Middle School, located at 2540 Green Valley Road, approximately 0.84-mile southeast of the project site.

Nevertheless, construction materials (which would include hazardous materials and may potentially include lead-based paints and asbestos-containing materials) may be transported to and from the project site using local public streets such as Green Valley Road, which does provide direct access to the project site. Therefore, hazardous materials could be transported within 0.25-mile of a school located along these public streets.

The transportation of hazardous materials to and from the project site would be subject to the requirements of the USDOT Office of Hazardous Materials Safety, and CHP, regarding safe transportation and handling. USDOT and CHP determine the container types used to transport hazardous materials and waste, and they license hazardous waste haulers to transport hazardous waste on public roads. Compliance with USDOT and CHP requirements would ensure that the transportation of any construction-related hazardous materials to and from the project site along local public streets would be handled with proper care and minimize any impact related to the handling of hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school.

Regarding operational hazardous materials, residential land uses typically do not involve the use of significant quantities of hazardous materials that would create a hazardous condition to the public or environment through transportation. Typical hazardous materials used in residential development include small quantities of cleaning supplies, paints, oil, grease, disinfectants, fertilizers, and pool chemicals for day-to-day operation and routine maintenance. Implementation of the County's Household Hazardous Waste Program and local adherence to manufacturer's instructions on use and disposal of these household materials would minimize any impact related to the transport/disposal of hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school.

Adherence to existing regulations and compliance with the safety procedures mandated by the USDOT and CHP would minimize the risks resulting from the transport and handling hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school to a **less-than-significant** level.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.8-3: For a Project Located within an Airport Land Use Plan or, Where Such a Plan Has Not Been Adopted, Within 2 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 project site is not located within 2 miles of a public airport or public use airport. Because of this distance, the project site is not located within any of the three ALUCP, as discussed previously under Section 3.8.2, "Environmental Setting." Therefore, construction and operation of the project would not have the potential to subject people residing or working in the project area to excess levels of aircraft noise. However, the project site is subject to the Federal Aviation Regulations (FAA), Part 77 notification area due to exceeding the slope ratio stated in Part 77 of Title 14 in the Code of Federal Regulations (14 CFR 77). Project development is not expected to create new impacts to navigable airspace given the height of future residential structures in relation to topography, height of existing oak woodlands and overhead powerline facilities in the project area. This impact would be **less than significant**.

The jurisdiction of providing appropriate development of areas surrounding public airports in El Dorado County is the County's designated ALUC, the EDTC. As previously discussed, the EDTC ALUC provides technical and advisory support to the Georgetown and Placerville Airports and the Cameron Park Airport District. The project site is not located within 2 miles of a public airport or public use airport, and as such, the project site is not located within any of the three ALUCPs. The nearest airport, the Cameron Airpark Airport, is located approximately 2.8 miles southeast of the project site. Therefore, the project would not result in a significant impact with respect to excessive noise for people residing or working in the project site area.

However, the project would be subject to the FAA 14 CFR 77.9 notification area. Part 77.9 requires proposed structures that exceed certain criteria to file a Notice of Proposed Construction or Alteration with the FAA Obstruction Evaluation Group (OEG) and fill out and submit Form 7460-1 to undergo an Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) (FAA 2023a). Although the project site is not within 2 miles of a public airport or public use airport, according to the FAA the project site is in proximity to a navigation facility; as a result, in accordance with 14 CFR 77.9, the project applicant must file the notice at least 45 days prior to the start of construction activities and undergo an OE/AAA (FAA 2023b). Once the notice has been filed, the OEG collaborates with the Departments of Defense and Homeland Security, the Army, Air Force, and Navy to determine if the project would have an adverse effect on national airspace (FAA 2023a). If there would be no adverse effect, the OEG would issue a Favorable Determination; if there is an adverse effect, then the OEG would file a Notice of Preliminary Findings, which lists the conditions needed to be met in order to receive a Favorable Determination (FAA 2023a). Once the Notice of Preliminary Findings has been published, the applicant has 60 days to agree to the conditions, request further study, or terminate the study. The FAA does not have land use authority and does not issue or deny building permits. However, local municipalities and counties may consider the FAA determination as part of their building permit approval process. Project development is not expected to create new impacts to navigable airspace given the height of future residential structures in relation to topography, height of existing oak woodlands and overhead powerline facilities in the project area. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.9 HYDROLOGY AND WATER QUALITY

This section identifies the regulatory context and policies related to hydrology and water quality, describes the existing hydrologic conditions at the project site, and evaluates potential hydrology and receiving water quality impacts of the proposed Generations at Green Valley Project (project).

Comments received on the Notice of Preparation (NOP) regarding hydrology and water quality included concerns regarding drainage and water quality impacts, stormwater runoff, subsurface water, water entitlements, and impacts to Folsom Lake water quality during construction resulting from project implementation. These comments are addressed where appropriate throughout this section. The NOP and comments submitted in response to it are included in Appendix A.

3.9.1 Regulatory Setting

FEDERAL

Clean Water Act

The US Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA as well as the states. Various elements of the CWA address water quality. These are discussed below.

CWA Water Quality Criteria/Standards

Pursuant to federal law, EPA has published water quality regulations under Title 40 of the Code of Federal Regulations (CFR). Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the act, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of state regulations below, the State Water Resources Control Board (SWRCB) and its nine regional water quality control boards (RWQCBs) have designated authority in California to identify beneficial uses and adopt applicable water quality objectives.

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. TMDL is the amount of the pollutant that the water body can receive and still comply with water quality objectives. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. In California, implementation of TMDLs is achieved through water quality control plans, known as Basin Plans, of the State RWQCBs. See state regulatory setting in the "State" section below.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits.

"Nonpoint source" pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or

discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The RWQCBs in California are responsible for implementing the NPDES permit system (see the discussion of state regulatory setting in the “State” section below).

Dredge/Fill Permitting

The discharge of dredged or fill material into waters of the United States is subject to permitting specified under Title IV (Permits and Licenses) of the CWA and specifically under Section 404 (Discharges of Dredge or Fill Material) of the CWA. Section 404 of the CWA regulates placement of fill materials into the waters of the United States. Section 404 permits are administered by US Army Corps of Engineers (USACE). Section 401 of the CWA requires that projects applying for a USACE permit for discharge of dredged or fill material must obtain water quality certification from the appropriate state agency, which in California is the SWRCB or designated RWQCB, indicating that the action would uphold state water quality standards.

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from and mitigating against disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of NFIP. Floodplains are divided into flood hazard areas, which are areas designated per their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas are the areas identified as having a one percent chance of flooding each year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain if the development is expected to increase flood elevation by 1 foot or more.

STATE

Porter-Cologne Water Quality Control Act

California’s primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants SWRCB and each of the nine RWQCBs power to protect water quality and is the primary vehicle for implementation of California’s responsibilities under the CWA. The applicable RWQCB for the proposed project is the Central Valley RWQCB. SWRCB and the Central Valley RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a water quality control plan (known as a “Basin Plan”) for its region. The Basin Plan for the Central Valley Region includes a comprehensive list of waterbodies within the region and detailed language about the components of applicable Water Quality Objectives (WQOs). The Basin Plan recognizes natural water quality, existing and potential beneficial uses, and water quality problems associated with human activities throughout the Sacramento and San Joaquin River Basins. Through the Basin Plan, the Central Valley RWQCB executes its regulatory authority to enforce the implementation of TMDLs, and to ensure compliance with surface WQOs. The Basin Plan includes both narrative and numerical WQOs designed to provide protection for all designated and potential beneficial uses in all its principal streams and tributaries. Applicable beneficial uses include municipal and domestic water supply; irrigation; non-contact and contact water recreation; groundwater recharge; freshwater replenishment; hydroelectric power generation; and preservation and enhancement of wildlife, fish, and other aquatic resources.

The Central Valley RWQCB also administers the adoption of waste discharge requirements, manages groundwater quality, and administers the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit).

California Fish and Game Code Section 1602—Lake and Streambed Alteration

California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports fish or wildlife resources under Section 1602 of the California Fish and Game Code. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to do any of the following without first notifying CDFW:

- ▶ substantially divert or obstruct the natural flow of, or 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.

A lake and streambed alteration agreement (LSAA) must be obtained for any diversion or alteration that would substantially adversely affect a fish or wildlife resource in a river, stream, or lake.

Anti-Degradation Policy

SWRCB has adopted an Anti-Degradation Policy, otherwise known as Resolution No. 68-16. This policy requires that the quality of existing high-quality water be maintained unless the State finds that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in policies as of the date on which such policies became effective. The policy also requires best practicable treatment or control of discharges to high-quality waters to assure that pollution or nuisance will not occur, and that the highest water quality consistent with maximum benefit to the people of the state will be maintained.

NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity

Dischargers whose projects disturb 1 or more acres of soil, or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under SWRCB's Construction General Permit (Order WQ 2022-0057-DWQ). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation.

Coverage under the Construction General Permit is obtained by submitting permit registration documents to SWRCB that include a risk-level assessment and a site-specific stormwater pollution prevention plan (SWPPP) that identifies an effective combination of erosion control, sediment control, and non-stormwater best management practices (BMPs). The Construction General Permit requires that SWPPP defines a program of regular inspections of the BMPs and, in some cases, sampling of water quality parameters.

NPDES Stormwater Permit for Discharges from Small Municipal Separate Storm Sewer Systems

EPA defines a municipal separate storm sewer system (MS4) as any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater that is designed or used for collecting or conveying stormwater. As part of the NPDES program, EPA initiated a program requiring that entities having MS4s apply to their local RWQCB for stormwater discharge permits. The program proceeded through two phases. Under Phase I, the program initiated permit requirements for designated municipalities with populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges. Phase II expanded the program to municipalities with populations of fewer than 100,000, as well as Small MS4s outside the urbanized areas that are designated by the permitting authority to obtain NPDES permit coverage for their stormwater discharges.

Generally, Phase I MS4s are covered by individual permits, and Phase II MS4s are covered by a general permit. Each regulated MS4 is required to develop and implement a stormwater management program (SWMP) to reduce the contamination of stormwater runoff and prohibit illicit discharges. El Dorado County is a Phase II Small MS4 Traditional Renewal Permittee under MS4 Order No. 2013-0001-DWQ.

California Water Code

The California Water Code is enforced by the California Department of Water Resources (DWR). The mission of DWR is “to manage the water resources of California in cooperation with other agencies, to benefit the State’s people, and to protect, restore, and enhance the natural and human environments.” DWR is responsible for promoting California’s general welfare by ensuring beneficial water use and development statewide.

Groundwater Management

Groundwater Management is outlined in the California Water Code, Division 6, Part 2.75, Chapters 1-5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as AB 3030, and has since been modified by SB 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management Act (SB 1168, SB 1319, and AB 1739) in 2014. The intent of the Acts is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a Groundwater Management Plan.

The Sustainable Groundwater Management Act of 2014 (SGMA) became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1). Pursuant to the SGMA, any local agency that has water supply, water management or land use responsibilities within a groundwater basin may elect to be a “groundwater sustainability agency” for that basin (Water Code Section 10723). The western slope of El Dorado County does not contain groundwater basins and is not subject to SGMA.

REGIONAL

Central Valley Water Quality Control Plan

The project would be located within the area under the jurisdiction of Central Valley RWQCB and its Basin Plan. SWRCB and the Central Valley RWQCB share the responsibility, under the Porter-Cologne Act (discussed above), to formulate and adopt water policies and plans and to adopt and implement measures to fulfill CWA requirements. The Central Valley Water Quality Control Plan (Basin Plan), last amended December 2020, identifies surface water and groundwater resources in the watershed and establishes beneficial uses and numeric water quality objectives for each resource.

Central Valley RWQCB Dewatering Requirements

CWA Section 402 includes waste discharge requirements for dewatering activities. While small amounts of construction-related dewatering are covered under the Construction General Permit, the Central Valley RWQCB has regulations specific to dewatering activities that typically involve reporting and monitoring requirements.

If dewatering is required as part of a project, then the project applicant would need to comply with the Central Valley RWQCB dewatering requirements. Coverage under the Construction General Permit typically covers uncontaminated dewatering activities, which are considered in the permit to be authorized non-stormwater discharges. As part of the Construction General Permit, all dewatering discharges are required to be filtered or treated, using appropriate technology, from sedimentation basins. Authorized non-stormwater dewatering discharges may require a permit because some RWQCBs have adopted General Permits for dewatering discharges. The Central Valley RWQCB has adopted a NPDES Low Threat Discharge and Dewatering General Permit. Therefore, a project applicant or the project applicant’s contractor would also need to obtain coverage under the NPDES Low Threat Discharge and Dewatering permit, which will require the dewatering discharge to be treated prior to discharge to any local water way.

If dewatering activities lead to discharges to the storm drain system or other water bodies, water treatment measures may be designed and implemented as necessary so that water quality objectives are met prior to discharge to waters of the state. As a performance standard, these measures would be selected to achieve the maximum removal of contaminant found in the groundwater and will represent the best available technology that is economically feasible. Implemented measures may include using infiltration areas and retaining dewatering effluent until particulate matter has settled before the water is discharged. The contractor should perform routine inspections of the construction area to verify that the water quality control measures are properly implemented and maintained; the contractor will also conduct observations of the water (e.g., check for odors, discoloration, or an oily sheen on groundwater). Other pre-discharge sampling and reporting activities required by the Central Valley RWQCB are typically conducted, if necessary. The final selection of water quality control measures would be subject to review by the Central Valley RWQCB, if necessary. If the groundwater is found to not meet water quality standards and treatment measures are not effective, the water may need to be hauled off-site for treatment and disposal at an appropriate waste treatment facility.

LOCAL

El Dorado County General Plan

The County General Plan Public Services and Utilities Element (El Dorado County 2015) and Conservation and Open Space Element (El Dorado County 2017) include the relevant objectives and policies that are applicable to the project.

- ▶ **Objective 5.4.1:** 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.
- ▶ **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.
- ▶ **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).
- ▶ **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.

Grading, Erosion, and Sediment Control Ordinances

The County Grading, Erosion, and Sediment Control Ordinance (Grading Ordinance) (Chapter 110.14 of the County Code of Ordinances) establishes provisions for public safety and environmental protection associated with grading activities on private property. Section 110.14.090 of the Grading Ordinance, which has incorporated the recommended standards for drainage BMPs from the High Sierra Resource Conservation and Development Council's BMP handbook, prohibits grading activities that would cause flooding where it would not otherwise occur or would aggravate existing flooding conditions. The Grading Ordinance also requires all drainage facilities, aside from those in subdivisions that are regulated by the County's Subdivision Ordinance, be approved by the County Transportation Division. Pursuant to the ordinance, the design of the drainage facilities in the county must comply with the County of El Dorado Drainage Manual (Drainage Manual) (El Dorado County 2020).

El Dorado County Subdivision Ordinance

The County's Subdivision Ordinance (El Dorado County Code of Ordinances Title 120) requires drainage plans to be submitted prior to the approval of tentative maps for proposed subdivision projects. The drainage plans must include an analysis of upstream, on-site, and downstream facilities and pertinent details, as well as details of any necessary off-site drainage facilities. The tentative map must include data on the location and size of proposed drainage structures. In addition, drainage culverts consistent with the drainage plan may be required in all existing drainage courses, including roads.

El Dorado County Design and Improvement Standards Manual

The County's Design and Improvement Standards Manual (Design Manual) was updated in 1990 and identifies required erosion and sediment control measures that are applicable to subdivisions, roadways, and other types of developments. Specifically, Volume III: Grading, Erosion and Sediment Control describes the criteria for determining whether an erosion and sediment control plan is required. When required, an erosion and sediment control plan must comply with the adopted Western El Dorado County Stormwater Management Plan (County SWMP) (El Dorado County 2004a).

El Dorado County Drainage Manual

The County's Drainage Manual provides standard procedures for designs of drainage improvements. The Drainage Manual supersedes the stormwater drainage system design standards in the County's Design Improvements Standards Manual. The Drainage Manual requires that a hydrologic and hydraulic analysis be submitted for all proposed drainage facilities. The analysis must include an introduction/background, location map/description, catchment description/delineation, hydrologic analysis, hydraulic and structural analysis, risk assessment/impacts discussion, unusual or special conditions, conclusions, and technical appendices. This analysis is usually required on projects undergoing discretionary review. However, under the Building Code and Grading Ordinance, the County also reviews ministerial development, including required drainage plans, to ensure that appropriate runoff design and controls are in place. The analysis addresses the following topics:

- ▶ A calculation of pre-development runoff conditions and post-development runoff scenarios using appropriate engineering methods. This analysis would evaluate potential changes to runoff through specific design criteria, and account for increased surface runoff.
- ▶ An assessment of existing drainage facilities within the project area, and an inventory of necessary upgrades, replacements, redesigns, and/or rehabilitation, including the sizing of on-site stormwater detention features and pump stations.
- ▶ A description of the proposed maintenance program for the on-site drainage system.
- ▶ Standards for drainage systems to be installed on a project- or parcel-specific basis.
- ▶ Proposed design measures to ensure structures are not located within 100-year floodplain.

Drainage systems must be designed on a site-specific basis in accordance with the findings of the studies and County requirements. As a performance standard, measures to be implemented would provide for no net increase in peak stormwater discharge relative to current conditions to ensure that 100-year flooding and its potential impacts are maintained at or below current levels and that people and structures are not exposed to additional flood risk.

Stormwater Management Plan and Stormwater Quality Ordinance

The County SWMP was adopted by the County in 2004 as a means of compliance with the applicable Small MS4 Permit and includes a Construction Site Runoff Control Program and a Post Construction Runoff Control Program. The purpose of the Construction Site Runoff Control Program of the SWMP is to control the discharge of pollutants from all construction sites greater than or equal to 1 acre. The SWMP requires full compliance with the Construction General Permit and El Dorado County's Grading, Erosion and Sediment Control Ordinance, Design Manual, and Drainage Manual. The Construction Site Runoff Control Program also describes the typical construction site practices expected to be implemented for common construction activities, as well as the minimum construction site practices required to protect water quality. The minimum measures include scheduling, preservation of existing vegetation, stockpile management, non-stormwater management, and disturbed soil area management.

The purpose of the Post Construction Runoff Control Program of the SWMP is to protect water quality and control runoff from all development or redevelopment projects greater than or equal to 1 acre during the operation period of the developments. This is achieved through the construction, implementation, and long-term operation and maintenance of BMPs. The SWMP requires full compliance with El Dorado County's Grading, Erosion and Sediment Control Ordinance, Design Manual, and Drainage Manual. The SWMP states that a site-specific Storm Water Mitigation Report (SWMR) documenting permanent stormwater quality mitigation measures must be developed during the planning/design stage of a proposed project; however, for practical purposes, the documentation of these measures is included in a project's drainage study, rather than in the SWMR.

In May 2015, the County adopted a County-Wide Storm Water Ordinance (Ordinance No. 5022) to ensure compliance with the new Small MS4 permit requirements in the entire unincorporated County. Chapter 8.79 of the County Code of Ordinances contains the stormwater regulations, which establishes the County's authority to implement and enforce the SWMP and to ensure compliance with state and federal stormwater laws and regulations. It also sets forth requirements that development projects incorporate BMPs to control the volume, rate, and potential pollutant loading of stormwater runoff. As provided by Section 8.79.150.G, the required BMPs may be contained in any land use entitlement, conditions of approval, grading plans, improvement plans, or any construction or building-related permit to be issued relative to such development. The requirements became effective in June 2015. The "West Slope Development and Redevelopment Standards and Post Construction Stormwater Plan Requirements," discussed below, provide details of the applicability and requirement.

West Slope Development and Redevelopment Standards and Post Construction Stormwater Plan Requirements

The West Slope Development and Redevelopment Standards provide the requirements to comply with the MS4 permit. The project would be a Type 5 hydromodifications project, which includes projects that create or replace one acre or more of impervious surface and require hydromodification management. The requirements include the following:

- ▶ Limit clearing, grading and soil compaction.
- ▶ Minimize impervious surfaces.
- ▶ Direct runoff to landscaping and/or use porous pavements.
- ▶ Conserve natural areas as much as possible consistent with local General Plan.
- ▶ Comply with County slope and stream setback ordinances/requirements.
- ▶ Comply with Chapter 15.14 of El Dorado County Grading, Erosion, and Sediment Control Ordinance.
- ▶ Implement and direct water to one or more Site Design Measures (BMPs).

- ▶ Remaining runoff from the 85th percentile 24-hour storm event (approximately 1.13 inches of water) shall be directed to one or more Storm Water Treatment and Baseline Hydromodification Measures using volumetric and/or flow-based sizing criteria.
- ▶ Identify potential sources of pollutant and implement corresponding source control measures.
- ▶ Provide ongoing maintenance of water retention and treatment facilities.
- ▶ Implement Hydromodification Management Measures (Section E.12.f. of the MS4 Permit).
- ▶ Verification showing post project flows will not exceed pre-project flow rate for the 2-year, 24-hours storm (can be included in a Drainage Report).

3.9.2 Environmental Setting

HYDROLOGY AND DRAINAGE

Regional Hydrology

The project site and off-site improvements are located within the Sacramento River Hydrologic Region and American River hydrologic unit (180201290703) (DWR 2014; Caltrans 2023). The Sacramento River Hydrologic Region extends from Chipps Island in Solano County north to Goose Lake in Modoc County. It is bounded by the Sierra Nevada on the east, the Coast Ranges on the west, the Cascade and Trinity mountains on the north, and the Sacramento-San Joaquin Delta on the south (DWR 2014).

Local Hydrology and Surface Water Conditions

The project site and the off-site improvements are located in the Lower South Fork American River watershed and Folsom Reservoir-South Fork American River subwatershed (Caltrans 2023). As described in Chapter 2, "Project Description," off-site improvements would occur within existing roadway rights-of-way, and developed areas with existing water, wastewater, and electrical infrastructure in the El Dorado Hills community. The project site is dominated by grasslands, oak woodlands, and scattered oak trees. The project site is mostly undeveloped with two existing residential structures and associated accessory structures located near Green Valley Road and Verde Valle Lane. Structures related to cattle ranching such as gates, fences, and feed areas are present throughout the project site. The southeast and center portions of the project site are relatively flat with the western portion sloping gently to the west and the northern portion sloping gently to the north. As described in Section 3.4, "Biological Resources," the project site surface water conditions consist of two ponds, seasonal wetland swales, seeps, intermittent and ephemeral drainages, and roadside ditches.

Runoff from the project site contributes to several drainage networks that ultimately tributary to Folsom Lake via New York Creek. The existing upstream shed contributing to Green Spring Creek is 2.6 square miles and is the primary source of runoff that flows through the project site via Green Spring Creek (D&A 2022). Green Spring Creek flows from east to west through the northern portion of the site, roughly paralleling Green Valley Road. The creek flows through two ponds with a total area of approximately 3.8 acres (Madrone 2022). The ponds are located on either side of an earthen embankment with a small bridge that provides site access and a flashboard riser that serves as the upper pond spillway. The earthen embankment impounds the creek, forming the upper pond, and the creek then flows through the spillway into the lower pond. The embankments for both ponds are overtopped during a 100-year event. Each pond's bypass can handle small storms, up to the 2-year storm, but larger events use the embankments to weir flow (D&A 2022). Green Spring Creek flows into Allegheny Creek approximately 1 mile west of the project site. Allegheny Creek converges with New York Creek approximately 0.5 mile further downstream. New York Creek then flows into Folsom Lake approximately 1 mile north of this convergence. Figure 3.4-1 illustrates on-site water features.

Wetlands and Waters of the U.S.

The project site supports seven types of aquatic features: seeps, seasonal wetland swales, seasonal wetlands, ponds, intermittent drainage, ephemeral drainage, and roadside ditch. Wetlands consist of seeps, seasonal wetland swale

and seasonal wetland, totaling approximately 2.56 acres. Other waters consist of ephemeral drainage, intermittent drainage, pond, and roadside ditch, totaling approximately 4.89 acres (Madrone 2022). Refer to Section 3.4, "Biological Resources," for a full description of the water bodies within the project site.

Flood, Tsunami, and Seiche Hazards

The FEMA flood hazard map identifies the areas of the project site and the off-site improvements as Zone X, which is an area of minimal flood hazard not within a 100-year flood zone (FEMA 2008). In addition, the project and the proposed off-site improvements are not located within an area subject to inundation related to dam failure (El Dorado County 2004b).

Tsunamis are ocean waves generated by vertical movement of the sea floor, normally associated with earthquakes or volcanic eruptions. The project and the proposed off-site improvements are not located in a coastal area subject to tsunami.

Seiche are oscillations of enclosed or semi-enclosed bodies of water that result from seismic events, wind stress, volcanic eruptions, underwater landslides, and local basin reflections of tsunamis. Within El Dorado County, the locations with the highest probability of impacts from seiches are shore areas of Lake Tahoe from 0 to 30 feet above mean lake water level (El Dorado County 2018). The project and the proposed off-site improvements are located more than 50 miles from Lake Tahoe.

Groundwater Conditions

The project site and the proposed off-site improvements are located in the western slope of El Dorado County, which does not contain groundwater basins. The project site consists of native soil and fills underlain by fractured metasedimentary bedrock. Two geotechnical investigations (Youngdahl Consulting Group, Inc. 2011a, 2011b) prepared for the project site noted that bedrock was encountered at depths ranging from 1 to 4 feet below ground surface in excavation pits located throughout the project site. Groundwater was encountered at depths of 1 to 4 feet below ground surface in four test pits located in the southern portion of the project site but was not identified in any of the other test pits to the depth of exploration, which ranged from 4 to 7 feet below ground surface (Youngdahl Consulting Group, Inc. 2011a). Groundwater conditions in the foothills are highly variable spatially and temporally. At varying times of the year, water may be perched on less weathered rock and/or present in the fractures and seams of the weathered rock found beneath the project site (Youngdahl Consulting Group, Inc. 2011a). Fractured bedrock aquifers tend to have a much lower capacity to transmit water than aquifers composed of unconsolidated medium to coarse-grained sediments. The amount of water that can be obtained from a well in an area underlain by fractured bedrock depends on the size and location of the fractures and their interconnection. Additionally, a lower percentage of precipitation over a fractured bedrock aquifer enters the groundwater system, which limits the ability of the groundwater in the bedrock to recharge (Robinson Noble, Inc. 2004). Because fractures in bedrock are often interconnected, the installation and operation of new wells into a fractured bedrock aquifer can affect groundwater levels in the vicinity and potentially affect the production in nearby wells. There are three known groundwater wells located on the project site. One well is located within the proposed Lot 1, which is proposed to continue to be used for water supply. The other two wells were suspected of being used for domestic use and watering for cattle operations. Both would be abandoned.

3.9.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and studies that address water resources in the vicinity of the project. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, state, and local laws, ordinances, and regulations identified in Section 3.9.1, "Regulatory Setting."

Storm Drainage Evaluation

A Storm Drainage Evaluation was conducted based on the project design (D&A 2022). The evaluation provides hydrologic and hydraulic analyses in support of storm drainage improvements shown on Figures 2-8a and 2-8b. The evaluation included modeling using the HEC-HMS (version 4.8) program to simulate hydrologic processes and using the HEC-RAS (version 5.0.7) program to create hydraulic analysis of Green Spring Creek (the intermittent drainage shown in Figure 3.4-1). The input parameters included the typography of the project site, the points of compliance (i.e., the locations where surface water would exist the project site), the soil types, the volume and extent of new impervious surfaces, and the proposed drainage improvements. The Storm Drainage Evaluation is provided in Appendix F.

THRESHOLDS OF SIGNIFICANCE

An impact on hydrology or water quality would be significant if implementation of the project would do any of the following:

- ▶ violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- ▶ substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- ▶ substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would
 - result in substantial erosion or siltation on-site or off-site;
 - result in flooding on-site or off-site;
 - create or contribute runoff water that would exceed the capacity of existing or planned stormwater- drainage systems or provide substantial additional sources of polluted runoff;
 - impede or redirect flood flows;
- ▶ in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- ▶ conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

Decrease Groundwater Supplies or Interfere with Groundwater Recharge

The project and the proposed off-site improvements are not located in a groundwater basin subject to SGMA. The project would obtain domestic water supply from El Dorado Irrigation District with the exception of the proposed Lot 1 that would continue to use its existing on-site well for water supply. The water use after implementation of the proposed project in Lot 1 would be comparable to current water use. The project would abandon the other two wells. The water wells have historically been used to serve residential uses and grazing operations on the property. Therefore, operation of the project would use less groundwater than existing conditions due to removal of two wells. In addition, project site geologic conditions are fractured bedrock that provides limited recharge potential. Therefore, implementation of the project would not decrease groundwater supplies or interfere with groundwater recharge. This issue is not applicable to the project and is not discussed further.

Contribute to Inundation by Flood, Tsunami, or Seiche

The project and the proposed off-site improvements are located in a FEMA designated Zone X area, which is an area of minimal flood hazard not within a 100-year flood zone (FEMA 2008). Therefore, the project and the proposed off-site improvements are not at risk due to inundation by floods. Impacts related to floods are not discussed further. The project and the proposed off-site improvements are not located in a coastal area subject to tsunami. Seiche waves, a

hazard specific to enclosed or semi-enclosed bodies of water. Within El Dorado County, the locations with the highest probability of impacts from seiches are shore areas of Lake Tahoe (El Dorado County 2018). The project and the proposed off-site improvements are located more than 50 miles from Lake Tahoe. The project and the proposed off-site improvements are not at risk due to inundation by tsunami or seiche. No impact would occur. Therefore, this issue is not discussed further.

Conflict with a Sustainable Groundwater Management Plan

The project and the proposed off-site improvements are not located in a groundwater basin subject to SGMA. Therefore, no sustainable groundwater management plan has been prepared, or is being prepared, that includes the project area. This issue is not applicable to the project and is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.9-1: Violate Water Quality Standards or Waste Discharge Requirements

Construction of the project, including off-site roadway and infrastructure improvements, would include earth-disturbing activities, which would result in the potential for increased erosion, runoff, and sedimentation on that site that could have subsequent effects on water quality. The project would be required to implement a SWPPP and associated BMPs to control erosion, reduce sedimentation and turbidity of surface runoff, and provide leak and spill protection for heavy equipment and hazardous material use. During operation, the project would be required to implement BMPs and LID measures in accordance with existing State and El Dorado County regulations, including the Grading Ordinance, the Design Manual, the Drainage Manual, and the West Slope Development and Redevelopment Standards and Post Construction Storm Water Plan. Impacts would be **less than significant**.

Construction

During site grading, trenching, construction of off-site roadway and infrastructure improvements, and other construction activities, areas of bare soil are exposed to erosive forces during rainfall events. Bare soils are more likely to erode than vegetated areas because of the lack of dispersion, infiltration, and retention properties created by covering vegetation. The extent of the impacts is dependent on soil erosion potential, type of construction practice, extent of disturbed area, timing of precipitation events, and topography and proximity to drainage channels. In addition, construction equipment and activities would have the potential to leak hazardous materials, such as oil and gasoline, that could affect surface water or groundwater quality. Improper use or accidental spills of fuels, oils, and other construction-related hazardous materials such as pipe sealant, solvents, and paints could also pose a threat to the water quality of local water bodies. Green Spring Creek and Allegheny Creek are located within the project site. Construction activities near and within the creeks may result in discharges of metals and other contaminants in sediment. Concrete, vehicle, and other fluids may be easily released into the creeks during construction as well. These discharges may have adverse impacts on the water quality of the creeks. The potential leaks or spills, if not contained, could also result in an adverse effect on groundwater and surface water quality. If precautions are not taken to contain or capture sediments and/or accidental hazardous spills, construction activities could result in substantial amounts of sediment or pollutants in stormwater runoff that adversely affect existing surface water quality.

Construction of the project and proposed off-site improvements would result in more than 1 acre of ground disturbance and the project applicant would be required to obtain coverage under the SWRCB NPDES Construction General Permit. As part of compliance with the NPDES Construction General Permit, a SWPPP must be prepared and implemented. One purpose of the SWPPP is to reduce the amount of construction-related pollutants that are transported by stormwater runoff to surface waters. The SWPPP would include specific construction BMPs, which include temporary erosion control measures (e.g., installation of straw wattle, silt fence, and erosion control blanket) to avoid transportation of construction-related pollutants to surface water bodies (e.g., Green Spring Creek and Allegheny Creek). Implementation of construction BMPs would reduce sedimentation and turbidity of surface runoff from disturbed areas within the project site, and leak and spill protection for heavy equipment and hazardous material use.

In addition to compliance with the latest NPDES and other water quality requirements (i.e., Construction General Permit and Small MS4 Permit), the project would be required to comply with the County's SWMP and Stormwater Quality Ordinance (Ordinance No. 5022), as discussed in Section 3.9.1, "Regulatory Setting," above. The SWMP and Stormwater Quality Ordinance set forth requirements that development projects incorporate BMPs to control the volume, rate, and potential pollutant loading of stormwater runoff. If dewatering is required during excavation activities, dewatering would be conducted locally and in accordance with methods described in the "Central Valley RWQCB Dewatering Requirements" heading under Section 3.9.1, "Regulatory Setting."

The project would adhere to state and local requirements, such as implementing a SWPPP and being consistent with the County's SWMP. With adherence to these requirements, potential adverse water quality impacts, such as violations of water quality standards or waste discharge requirements from construction activities, would be avoided and this impact would be less than significant.

Operation

Implementation of the project would increase the impervious surface on-site, which would alter the existing drainage pattern and increase stormwater runoff. Development and operation of the project would result in intensified land uses within the project site, which would result in increased vehicle use and the discharge of associated pollutants. Leaks of fuel or lubricants, tire wear, brake dust, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load. The increased stormwater runoff would pick up and carry pollutants to receiving waters. Implementation of the project could result in landscaped areas within new homes. Runoff from new landscaped areas may contain residential pesticides and nutrients. The development of residential units and public open space could increase the amount of pathogens in water from pet waste and the amount of trash and debris entering the stormwater drainage system. Consequently, the long-term degradation of runoff water quality within the project site and of receiving waters could occur as a result of project operation.

The County's Grading Ordinance requires the site to be graded in a way that would not cause flooding and would reduce stormwater runoff, which would reduce water quality pollution during storm events. The County's Subdivision Ordinance requires proposed subdivision projects to provide drainage structures to capture and treat stormwater runoff. The project would construct and operate eight on-site detention/water quality basins (as shown in Figure 2-9a and 2-9b). As described in the Storm Drainage Evaluation, the detention/water quality basins have been adequately sized to retain and treat runoff generated after project development. The basins would capture and treat runoff consistent with LID standards per the El Dorado County West Slope Development and Redevelopment Standards and Post Construction Storm Water Plan Requirements. The project site design also contains disconnected pavement and open space which provides additional LID. The proposed drainage structures would ensure that project operation would minimize water quality impacts.

In addition to on-site detention/water quality basins, the new stormwater management system would include LID water quality treatment measures to control the quality of stormwater runoff from the site prior to discharge to the downstream receiving waters (e.g., New York Creek) required by the El Dorado County West Slope Development and Redevelopment Standards and Post Construction Storm Water Plan Requirements. Typical measures could include bio-filtration planters, bio-filtration basins, infiltration areas, permeable paving, localized rainwater harvesting, where feasible, and other treatment measures as approved by the County. The LID measures would also minimize water quality impacts associated with project operation. Once constructed, Green Spring Creek would be restored to its approximate natural state and would largely be located within a designated open space area.

Furthermore, the County SWMP ensures compliance with the Small MS4 permit requirements in the entire unincorporated County by setting forth requirements that development projects incorporate BMPs to control the volume, rate, and potential pollutant loading of stormwater runoff. The required BMPs may be contained in any land use entitlement, conditions of approval, grading plans, improvement plans, or any construction or building-related permit to be issued relative to such development. Implementation of the BMPs required by the Small MS4 permit would ensure that the project operation would not violate water quality or waste discharge requirements. Therefore, the project operation would not violate water quality standards or waste discharge requirements with compliance with the regulations listed above and implementation of BMPs and LID measures. Operation of the

proposed off-site improvements would not require ground disturbing activities that would generate polluted runoff that could violate water quality standards. Impacts relative to water quality during operations would be less than significant.

Summary

Based on the discussion above, construction and operation of the project and proposed off-site improvements would not violate water quality standards or waste discharge requirements with compliance with existing regulations, BMPs, and LID measures. The project impacts on water quality would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-2: Substantially Alter Drainage Patterns of the Project Site Such That Substantial Erosion and Siltation Would Occur

Construction of the project and off-site improvements would include earth-disturbing activities that have the potential to result in soil erosion during excavation, grading, trenching, and soil stockpiling. Implementation of the project and the proposed off-site improvements would be subject to existing regulations pertaining to construction erosion control BMPs and post-construction stormwater runoff control, including the County's Grading Ordinance, the County SWMP's Construction Site Runoff Control Program, NPDES Construction General Permit, County's Design Manual, and MS4 permit requirements. Compliance with existing regulations would ensure that the impacts associated with soil erosion and siltation on-site or off-site would be **less than significant**.

Implementation of the project would result in grading that would alter site conditions and modifications to two existing ponds on the northern portion of the site (see Figure 2-9a and 2-9b) that would alter surface drainage patterns and potentially create erosion and siltation impacts from the alteration. Inappropriate design of the drainage system would have the potential to result in substantial on-site or off-site erosion or siltation.

Construction

As discussed under Impact 3.9-1 above, construction activities associated with the project and proposed off-site improvements would have the potential to expose topsoil and result in erosion and siltation. Erosion and transport of silt would be addressed by complying with the County's Grading Ordinance, the County SWMP's Construction Site Runoff Control Program, and the NPDES Construction General Permit requirements to implement construction erosion control BMPs. Implementation of BMPs, such as physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, and limitations on work periods during storm events, would substantially reduce or prevent erosion from occurring during construction. Compliance with these regulations would further reduce runoff, erosion, and sedimentation associated with drainage improvements. With compliance with existing regulations, impacts associated with substantial erosion or siltation on-site or off-site would be less than significant.

Operation

Once operational, disturbed areas would be restored and either covered in impervious surfaces with drainage control features to manage stormwater runoff, consistent with County's Design Manual, or landscaped/ vegetated which would reduce the erosion potential. The improvements that introduce new impervious surfaces would be required to include drainage control features consistent with County requirements that are designed to minimize the potential for erosion or siltation. In addition, the Small MS4 permit and the local ordinances and regulations implemented to comply with the Small MS4 permit would require LID measures to be constructed to control the quality of stormwater runoff from the site prior to discharge to the surrounding waters. Typical LID features could include bio-infiltration facilities, permeable paving, localized rainwater harvesting, and other treatment features as approved by the County. This would ensure the project's effect on drainage patterns would not cause or exacerbate the rate of sedimentation or siltation in a manner that would adversely affect the function of natural on-site or off-site drainages, streams, or creek. The project would include off-site transportation, water supply, wastewater conveyance, and electrical facilities improvements. No net increase in impervious surface would occur as a result of off-site improvements. Therefore, no change in drainage pattern from existing conditions would occur with implementation of the off-site improvements.

Implementation of the project operation would not result in substantial erosion or siltation on site or off site. This impact would be less than significant.

Summary

Based on the discussion above, implementation of the project would alter the existing drainage pattern. However, complying with existing regulations and implementation of BMPs and LID measures would ensure that the project would not result in substantial erosion or siltation on-site or off-site. The impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-3: Substantially Alter Drainage Patterns of the Project Site Such That Flooding On-Site or Off-Site Would Occur, or Flood Flows Would Be Impeded or Redirected

Project components such as roads and houses would alter surface drainage patterns as a result of adding impermeable surface and altering flow patterns that could yield increased amounts of stormwater runoff resulting in on-site or off-site flooding. However, the Storm Drainage Evaluation prepared for the project concluded that the proposed drainage facilities incorporated into the project design would be sufficient to manage stormwater runoff on-site and would not result in adverse impact to downstream channels. The project would also not impede or redirect flood flows because the project is not located in flood hazard zone and the surface water flow would be managed by the proposed drainage facilities. Therefore, the impacts related to flooding on-site or off-site and impeding or redirecting flood flows would be **less than significant**.

The project site is currently undeveloped with no existing manmade stormwater infrastructure on-site. Implementation of the project would develop roads and houses that would alter surface patterns as a result of adding impermeable surfaces and directly altering flow patterns. The project would include several drainage improvements in order to maintain or reduce peak flows leaving the project site as well as flows and flood elevations in the Green Spring Creek. The project would remove the two existing ponds within the Green Spring Creek corridor; replace the existing upstream culvert crossing with a new Conspan crossing at the proposed C-Drive crossing; remove the downstream embankment (downstream of C-Drive), and restore the creek channel to its approximate natural state near proposed A-Drive crossing. The project would result in altered flow patterns that could yield increased amounts of stormwater runoff resulting in flooding on-site or off-site. The project activities that convert permeable surface or install permanent structures would require stormwater drainage management measures to avoid on-site or off-site flooding impacts.

A Storm Drainage Evaluation (Appendix F) was conducted based on the proposed storm drainage facilities as required by the County's Drainage Manual (D&A 2022). The Storm Drainage Evaluation modeled 100-year storm events at 12 critical points within the project site under pre-development and post-development conditions. At all 12 critical points, the post-development conditions 100-year storm flows (ranging from 16.3 to 1950.7 cubic feet per second) are reduced below the pre-development conditions (ranging from 21.6 to 2040.7 cubic feet per second). The flow rate reductions are achieved primarily by use of the proposed detention basins to capture stormwater runoff. In addition, the Storm Drainage Evaluation also modeled the water surface elevations (WSEs) of the Green Spring Creek under pre-development and post-development conditions. Prior to project development, the 100-year and 10-year storm events overtop the existing pond embankments and flow continues downstream unrestricted. With implementation of the proposed drainage improvements, the peak flows during storm events would be reduced. The modeling indicated that the WSEs are lower throughout the Green Spring Creek within the project site with maximum increase in WSE of 0.1 foot for the 100-year storm event. Any increase or decrease in WSE of 0.1 foot or less is considered negligible and is within the computational accuracy of the model.

The evaluation concluded that the project design without the inclusion of LID measures is sufficient to satisfactorily treat and convey 100-year flow within the proposed drainage facilities without damage to structures or downstream channels. The proposed detention basins would direct flows to existing channels at rates that are below pre-development stormwater peak flows and would therefore reduce the existing rate of surface water flow from the

project site. Therefore, the proposed detention basins and the proposed drainage improvements would ensure that post-development stormwater runoff flow would not exceed pre-development conditions. As discussed in Impact 3.9-2 above, the project would be subject to Small MS4 permit and local ordinances requirements pertaining to post-construction stormwater runoff control. The project would be required to construct LID measures to control the quality of stormwater runoff from the site prior to discharge to the surrounding waters. Typical LID measures could include bio-infiltration facilities, permeable paving, localized rainwater harvesting, and other treatment features as approved by the County. Development of the proposed off-site improvements would not result in a net increase in impervious surface that could alter drainage patterns and result in on-site or off-site flooding. Therefore, implementation of the project would not result in altered drainage patterns that could result in on-site or off-site flooding or impeded or redirected flood flows with compliance with existing regulations. The project and the proposed off-site improvements are located in areas of minimal flood hazards and not within a 100-year flood zone (FEMA 2008). There is no localized flooding risk in the project area. Surface water flow would be managed by the proposed drainage facilities. Therefore, the project would not impede or redirect flood flows. Impacts associated with on-site or off-site flooding and impeding or redirecting flood flows would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.9-4: Conflict with or Obstruct Implementation of a Water Quality Control Plan

The Basin Plan implemented by the Central Valley RWQCB is a master policy document for managing water quality in the region. Folsom Lake is the closest waterbody to the project site and is identified in the Basin Plan with various beneficial uses. Folsom Lake is an impaired waterbody listed for mercury. Implementation of the project and the proposed off-site improvements would not use mercury containing materials and would not violate water quality standards as discussed in Impact 3.9-1. Therefore, the impact would be **less than significant**.

The Central Valley RWQCB implements the Basin Plan for the Sacramento and San Joaquin River Basins, a master policy document for managing water quality in the region. The Basin Plan established beneficial water uses for waterways and waterbodies within the region. The closest waterbody to the project site identified in the Basin Plan is Folsom Lake located approximately 2.5 miles to the west. Folsom Lake is listed as providing the beneficial uses of municipal and domestic supply, irrigation supply, service and power supply, water contact and non-contact recreation, warm and cold freshwater habitat, and wildlife habitat (Central Valley RWQCB 2019). Folsom Lake is also listed on the CWA 303(d) list of impaired water bodies and listed as impaired for mercury with potential source of this pollutant identified as "A Source Unknown" (EPA 2022). Implementation of the project and the proposed off-site improvements would not use mercury containing materials that would negatively impact Folsom Lake. In addition, construction and operation of the project and proposed off-site improvements would not violate water quality standards or waste discharge requirements with compliance with existing regulations, BMPS, and LID measures as discussed in Impact 3.9-1 above. Therefore, the project would not conflict with or obstruct the implementation of a water quality control Plan and the impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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3.10 LAND USE, PLANNING, AND AGRICULTURE AND FORESTRY RESOURCES

This land use analysis evaluates consistency of the project with applicable land use plans and policies. The physical environmental effects associated with the project, many of which pertain to issues of land use compatibility (e.g., noise, aesthetics, air quality) and the project's consistency with associated General Plan policies, are evaluated in other sections of Chapter 3 of this Draft EIR.

Comments received on the Notice of Preparation (NOP) regarding land use, planning, and agriculture and forestry resources included concerns regarding the General Plan Amendment and rezoning for the project, and annexation of the project by local agencies. The proposed annexation by local agencies is addressed throughout the EIR. These comments are addressed where appropriate throughout this section. The NOP and comments submitted in response to it are included in Appendix A.

3.10.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to land use are applicable to the project.

STATE

California Planning Law - General Plans

State law requires El Dorado County (County) (as well as all other cities and counties in the state) to "adopt a comprehensive, long-term general plan for the physical development of the county" (Government Code Section 65300). The general plan is considered to be the County's "constitution," containing development and conservation policies that will guide its long-term development. State law mandates that the general plan address land use, housing, circulation, open space, conservation, noise, and public safety, as well as any other issues that may be of interest to the county. The land use element of the general plan identifies the allowable types, density, and intensity of land uses through its list of residential, commercial, agricultural, industrial, and other land use designations. The land use diagram (map) identifies the locations of these existing and future land uses, as well as the communities within which they will be located.

California Department of Conservation Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP) was established by the State of California in 1982 to continue the Important Farmland mapping efforts begun in 1975 by the U.S. Soil Conservation Service (now called NRCS under the U.S. Department of Agriculture). The California Department of Conservation, Office of Land Conservation, maintains a statewide inventory of farmlands. Authority for the FMMP comes from Government Code Section 65570(b) and Public Resources Code Section 612. Government Code Section 65570(b) requires the Department of Conservation to collect or acquire information on the amount of land converted to or from agricultural use for every mapped county and to report this information to the Legislature. The maps are updated every 2 years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance.

Classifications are based on a combination of physical and chemical characteristics of the soil and climate that determine the degree of suitability of the land for crop production. The classifications under the FMMP are as follows:

- ▶ Prime Farmland—land that has the best combination of features to produce agricultural crops;
- ▶ Farmland of Statewide Importance—land other than Prime Farmland that has a good combination of physical and chemical features to produce agricultural crops, but that has more limitations than Prime Farmland, such as greater slopes or less ability to store soil moisture;

- ▶ Unique Farmland—land of lesser quality soils used to produce the state’s leading agricultural cash crops;
- ▶ Farmland of Local Importance—land of importance to the local agricultural economy;
- ▶ Grazing Land—existing vegetation that is suitable for grazing;
- ▶ Urban and Built-Up Land—land occupied by structures in density of at least one dwelling unit per 1.5 acres;
- ▶ Land Committed to Nonagricultural Use—vacant areas; existing land that has a permanent commitment to development but has an existing land use of agricultural or grazing lands; and
- ▶ Other Land— land not included in any other mapping category, common examples of which include low density rural developments, brush, timber, wetland, and vacant and nonagricultural land surrounded by urban development.

Public Resources Code

Public Resources Code Section 21060.1 defines “agricultural land” as: prime farmland, farmland of statewide importance or unique farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria, as modified for California. This definition is used to determine impact significance for the potential loss of agricultural lands under CEQA.

California Land Conservation Act of 1965

The California Land Conservation Act of 1965, or Williamson Act (California Government Code Section 51200 et seq.), preserves agricultural and open space lands through property tax incentives and voluntary restrictive use contracts. Private landowners voluntarily restrict their land to agricultural and compatible open-space uses under minimum 10-year rolling term contracts. In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value.

LOCAL

2020 Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy

The Sacramento Area Council of Governments (SACOG) is designated by the federal government as the Metropolitan Planning Organization for the Sacramento region, which requires SACOG to maintain a regional transportation plan that must be updated every 4 years in coordination with each local government. Placer and El Dorado Counties are different in this arrangement in that each county has its own State designation as a Regional Transportation Planning Agency responsible for developing its own transportation plan. SACOG is the Regional Transportation Planning Agency for Sacramento, Sutter, Yolo, and Yuba Counties. SACOG works in coordination with the Placer County Transportation Planning Agency and the El Dorado County Transportation Commission to ensure consistency between these two county-specific plans and the broader regionwide plan.

The Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) is required to be a 20-year multimodal transportation plan that is financially feasible, achieves health standards for clean air, and addresses Statewide climate goals. The MTP/SCS land use forecast identifies the general location of different types of land uses, residential densities, employment intensities, and natural resource areas.

The project is located within the Established Community type identified in the 2020 MTP/SCS. The 2020 MTP/SCS forecasts about 2,330 new housing units in El Dorado Hills and 8,490 new housing units in the Established Community Type in El Dorado County (SACOG 2020).

El Dorado County General Plan

The El Dorado County General Plan (General Plan) Introduction Chapter identifies the long-range direction and policy for the use of land in the County through the Statement of Vision, Plan Strategies, Plan Concepts, and Plan Objectives, and are the basis of the General Plan’s goals, objectives, policies, and implementation measures contained

in each of the plan's nine elements. These provisions constitute the central policy direction of the General Plan. contains goals, objectives, and policies related to the county's future growth and development.

The project site is located within the boundaries of the General Plan designated El Dorado Hills Community Region, which is identified in the General Plan's Plan Strategies and Plan Concepts as an area where urban growth is to be directed (El Dorado County 2004). The El Dorado County General Plan land use designations for the site are Low Density Residential (LDR) with approximately 1.4 acres designated Open Space (OS) associated with the Sacramento Municipal Utility District (SMUD) utility easement (Figure 2-2) (El Dorado County 2015).

The following are relevant land use objectives and policies to the project (El Dorado County 2019). The reader is referred to Sections 3.1 through 3.17 for applicable General Plan objectives and policies related to other environmental issue areas.

- ▶ **Objective 2.1.1: Community Regions.** Establish urban development line and provide opportunities that allow for continued population growth and economic expansion while preserving character of region.
 - **Policy 2.1.1.1:** The Communities within the County are identified as: El Dorado Hills, Cameron Park, El Dorado, Diamond Springs, Shingle Springs, and the City of Placerville and immediate surroundings. (Resolution 126-2019, August 6, 2019)
 - **Policy 2.1.1.2:** Establish Community Regions to define those areas which are appropriate for the highest intensity of self-sustaining compact urban-type development or suburban type development within the County based on the municipal spheres of influence, availability of infrastructure, public services, major transportation corridors and travel patterns, the location of major topographic patterns and features, and the ability to provide and maintain appropriate transitions at Community Region boundaries. These boundaries shall be shown on the General Plan land use map.
 - **Policy 2.1.1.7:** Development within Community Regions, as with development elsewhere in the County, may proceed only in accordance with all applicable General Plan Policies, including those regarding infrastructure availability as set forth in the Transportation and Circulation and the Public Services and Utilities Elements. Accordingly, development in Community Regions and elsewhere will be limited in some cases until such time as adequate roadways, utilities, and other public service infrastructure become available and wildfire hazards are mitigated as required by an approved Fire Safe Plan.
 - **Policy 2.2.5.2:** All applications for discretionary projects or permits including, but not limited to, General Plan amendments, zoning boundary amendments, tentative maps for major and minor land divisions, and special use permits shall be reviewed to determine consistency with the policies of the General Plan. No approvals shall be granted unless a finding is made that the project or permit is consistent with the General Plan. In the case of General Plan amendments, such amendments can be rendered consistent with the General Plan by modifying or deleting the General Plan provisions, including both the land use map and any relevant textual policies, with which the proposed amendments would be inconsistent.
 - **Policy 2.2.5.3:** The County shall evaluate future rezoning: (1) To be based on the General Plan's general direction as to minimum parcel size or maximum allowable density; and (2) To assess whether changes in conditions that would support a higher density or intensity zoning district. The specific criteria to be considered include, but are not limited to, the following:
 1. Availability of an adequate public water source or an approved Capital Improvement Project to increase service for existing land use demands;
 2. Availability and capacity of public treated water system;
 3. Availability and capacity of public wastewater treatment system;
 4. Distance to and capacity of the serving elementary and high school;
 5. Response time from nearest fire station handling structure fires;
 6. Distance to nearest Community Region or Rural Center;

7. Erosion hazard;
 8. Septic and leach field capability;
 9. Groundwater capability to support wells;
 10. Critical flora and fauna habitat areas;
 11. Important timber production areas;
 12. Important agricultural areas;
 13. Important mineral resource areas;
 14. Capacity of the transportation system serving the area;
 15. Existing land use pattern;
 16. Proximity to perennial water course;
 17. Important historical/archeological sites;
 18. Seismic hazards and present of active faults; and
 19. Consistency with existing Conditions, Covenants, and Restrictions.
- **Policy 2.2.5.21:** Development projects shall be located and designed in a manner that avoids incompatibility with adjoining land uses that are permitted by the policies in effect at the time the development project is proposed. Development projects that are potentially incompatible with existing adjoining uses shall be designed in a manner that avoids any incompatibility or shall be located on a different site.
- **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.

El Dorado County Zoning Ordinance

While the County General Plan establishes policies to guide the County's land use decision making, the Zoning Ordinance (County Code of Ordinances, Title 130) consists of enforceable regulations on the use of land areas subject to the county's jurisdiction (unincorporated area). The unincorporated area is broken into various residential, commercial, industrial, agricultural, and other "zones," with the standards and regulations applicable to each particular type of zone described in the Zoning Ordinance. Zoning maps illustrate how the zoning districts are distributed throughout the county. The Zoning Ordinance sets forth regulations to ensure that development and land use activities protect and promote the health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses in the County.

Zoning on the site consists primarily of Estate Residential 10-acre (RE-10) with some areas zoned RE-5, and the SMUD easement zoned as Recreational Facility Low (RF-L). The proposed C-Drive extension area is zoned RE-5, while the proposed A-Drive extension area is zoned RE-10 (Figure 2-3). A summary of these zoning districts is provided below (El Dorado County 2022).

- Estate Residential (RE-5 or RE-10). The RE, Residential Estate Zone is intended to preserve the rural character of an area by providing for and regulating the development of low density and rural residential development at a range of densities to include one dwelling unit per five acres and one dwelling per 10 acres. Minimum lot size designations of —5 and —10 are applied to this zone based on surrounding use compatibility, physical and infrastructural constraints, and General Plan use designation. Said designations represent the minimum number of acres allowed for each lot. Agricultural structures and uses are considered compatible with this zone.

- ▶ Recreational Facilities, Low-Intensity (RFL). The RFL Zone is applied to regulate and promote dispersed recreational and tourist accommodating uses and activities primarily in Rural Regions or Rural Centers of the County where such uses are compatible with adjacent or nearby rural residential, agricultural or resource development. Uses include but are not limited to camping, picnicking, equestrian staging, and river put-in and take-out.

3.10.2 Environmental Setting

PROJECT AREA

The project site encompasses 280 acres located on five parcels, Assessor's Parcel Numbers (APN) 126-020-001, 126-020-002, 126-020-003, 126-020-004, and 126-150-023. The majority of the site is located south of Green Valley Road, with the exception of the northern tip of the site that is north of Green Valley Road (portion of APN 126-150-023).

The project site is currently undeveloped and consists primarily of grassland vegetation, oak woodlands and scattered oak trees, on-site ponds/creek, and wetland features (Figure 2-1). The topography of the site is varied, with elevations ranging from approximately 960 feet to 1,235 feet above mean sea level. The center of the site is generally higher in elevation and relatively flat compared to the periphery of the site. Slopes range from flat to greater than 40 percent, with the majority of the site having less than a 10 percent slope. The project site is currently used for seasonal grazing. Additionally, a small strawberry field is located on the northern portion of the site with associated structures in the area. Two electrical lines are within the project vicinity. A distribution power line is located along Green Valley Road to the northwest of the project area, is supported by wooden poles, and serves area residents. A SMUD utility easement, which would not serve the project site, contains a 230-kilovolt electrical transmission line and traverses the southeastern corner of the project site.

While the project site has been used for agricultural uses, such as grazing and hosting a small strawberry field, the California Department of Conservation FMMP designates the site as "Grazing Land" and is not considered important farmland under CEQA. The project site is also not under a Williamson Act contract.

As noted above, the project site is used for seasonal grazing and the operation of a small strawberry field. There are no previous or existing commercial forest/timber production activities on the project site. The project is also not zoned for forest uses (i.e., Forest Resource or Timber Production zoning).

SURROUNDING LAND USES

The project site is primarily surrounded by a mix of existing residential and rural residential uses. The California Department of Conservation FMMP designates the surrounding land areas as "Grazing Land, Other Land, and Urban and Built-Up Land." These designations are not considered important farmland under CEQA.

3.10.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential land-use impacts is based on a review of the relevant planning documents pertaining to the project area that includes the El Dorado County General Plan and Zoning Ordinance.

The analysis discusses whether the project would be consistent with applicable land use plans and policies that were adopted for the purpose of avoiding or mitigating an environmental effect. Land use policies pertain to the type, location, and physical form of new development. For this analysis, policies "adopted for the purpose of avoiding or mitigating an environmental effect" are considered those that, if implemented and adhered to, would avoid or mitigate physical impacts on the environment. For each potential impact, the analysis compares the impact to the standards of significance listed below and determines the impact's level of significance under CEQA. The reader is

referred to the other sections of this EIR for evaluations of project consistency with county and State policies and regulations related to environmental issue areas beyond land use.

THRESHOLDS OF SIGNIFICANCE

A land-use impact is considered significant if implementation of the Generations at Green Valley Project would do any of the following:

- ▶ physically divide an established community; and/or
- ▶ cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

ISSUES NOT DISCUSSED FURTHER

Physical Division of an Established Community

The project would not physically divide an established community. The project would be adjacent to existing communities in the surrounding area. It does not re-route any roads or alter access to nearby neighborhoods. Therefore, this issue is not discussed further.

Project Off-Site Improvements

As identified in Chapter 2, "Project Description," the project would include off-site roadway facility and infrastructure improvements. These off-site improvements would occur within existing roadways and/or easements and would not create a new physical feature or land use that would conflict with county land use policies or physically divide an established community in the county. Therefore, this issue is not discussed further.

Agricultural Resources

As identified in Section 3.10-2, "Environmental Setting," the project site and surrounding area consists of residential and rural residential uses. The site is used for seasonal grazing and contains a small strawberry field on the north side of the project area; however the project site is not designated as important farmland under CEQA. Therefore, this issue is not discussed further.

Forestry Resources

As identified in Section 3.10-2, "Environmental Setting," the project site is used for seasonal grazing and the operation of a small strawberry field. There are no previous or existing commercial forest/timber production activities on the project site. The project is also not zoned for forest uses (i.e., Forest Resource or Timber Production zoning). Therefore, this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: Cause a Significant Environmental Impact Because of a Conflict with Any Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect.

Implementation of the project would include General Plan amendments and rezoning. These changes to the General Plan would not alter or conflict with General Plan land use policy provisions and would be consistent with the SACOG 2020 MTP/SCS. As identified in the Sections 3.1 through 3.17 of the Draft EIR, implementation of identified mitigation measures would address project consistency with the General Plan policy provisions that address environmental effects. This impact would be **less than significant**.

As described in Chapter 2, "Project Description," implementation of the Project would involve General Plan amendments and rezoning to increase the density of allowed residential land uses as well as establish open space

and recreation uses. However, the proposed residential density and project design would be consistent with the General Plan's Plan Strategies and Plan Concepts as well as Objective 2.1.1 and associated Policy 2.1.1.2 regarding the placement of urban-type development within the El Dorado Hills Community Region. In addition, the project design includes open space buffers and estate lot sizes that range from 5.0 to 5.7 acres to buffer and transition project residential densities with surrounding land uses (Figure 2-5 and 2-6) consistent with General Plan Policy 2.2.5.21 and Objective 2.5.1 and associated Policy 2.5.1.1.

As identified in Appendix G, the project would be generally consistent with applicable General Plan policy provisions, County Code of Ordinances requirements, and El Dorado Local Agency Formation Commission (LAFCO) which address environmental issues beyond the General Plan land use policy provisions described above. The reader is also referred to Sections 3.1 through 3.17 for additional consistency analysis discussion.

The project site is included in SACOG's 2020 MTP/SCS as an Established Community type and has therefore been accounted for in its growth pattern estimation for the region (SACOG 2020: 4). The 2020 MTP/SCS forecasts 4,070 housing units added to the Established Communities in El Dorado County and 2,330 housing units in El Dorado Hills between 2016 and 2040. In comparison to the 2020 MTP/SCS, the project would account for less than 10 percent of total new housing units in Established Communities in El Dorado County and approximately 16 percent of total new housing units in El Dorado Hills by 2040. SACOG describes Established Communities as areas typically adjacent to or surrounding Center and Corridor communities and are also known as mature suburban communities. These communities are typically made of low- to medium-density residential neighborhoods, which is consistent with the proposed project; therefore, the project is consistent with the land use assumptions for the Established Community Type in the 2020 MTP/SCS.

Based on the analysis above and Appendix G, the project would be implemented in a manner consistent with applicable plans and policies. This impact would be **less than significant** through application of the mitigation measures identified in Section 3.1 through 3.17.

Mitigation Measures

No mitigation is required for this impact.

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3.11 NOISE AND VIBRATION

This section includes a summary of applicable regulations related to noise and vibration, a description of ambient-noise conditions, and an analysis of potential short-term construction and long-term operational-source noise impacts associated with the Generations at Green Valley Project (project). Mitigation measures are recommended as necessary to reduce significant noise impacts. Additional data is provided in Appendix H.

Comments were received on the notice of preparation (NOP) identifying issues associated with construction and operational noise impacts from the project on adjoining residential areas. These issues are addressed in this section. The NOP and comments submitted in response to it are included in Appendix A.

3.11.1 Common Noise Descriptors

Prior to providing the regulatory and environmental setting, some fundamental definitions of commonly used noise terms are provided in this section. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors used throughout this section.

Equivalent Continuous Sound Level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013: 2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq} , is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by the California Department of Transportation (Caltrans) and the Federal Transit Administration (FTA) (Caltrans 2013: 2-47; FTA 2018).

Maximum Sound Level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013: 2-48; FTA 2018).

Day-Night Level (L_{dn}): L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-decibel (dB) "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013: 2-48; FTA 2018).

Community Noise Equivalent Level (CNEL): CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2013: 2-48).

Vibration Decibels (VdB): VdB is the vibration velocity level in decibel scale (FTA 2018: Table 5-1).

Peak Particle Velocity (PPV): PPV is the peak signal value of an oscillating vibration waveform. Usually expressed in inches/second (in/sec) (FTA 2018: Table 5-1).

3.11.2 Acoustic Fundamentals

Prior to discussing the noise setting for the project, background information about sound, noise, vibration, and common noise descriptors is needed to provide context and a better understanding of the technical terms referenced throughout this section.

SOUND, NOISE, AND ACOUSTICS

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

FREQUENCY

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

SOUND PRESSURE LEVELS AND DECIBELS

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.0000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB).

ADDITION OF DECIBELS

Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-WEIGHTED DECIBELS

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an “A-weighted” sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels (dBA). Table 3.11-1 describes typical A-weighted noise levels for various noise sources.

Table 3.11-1 Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013: Table 2-5.

HUMAN RESPONSE TO CHANGES IN NOISE LEVELS

The doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013: 2-18). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013: 2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

VIBRATION

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in PPV or RMS vibration velocity. PPV and RMS vibration velocity are normally described in in/sec or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2018: 110, Caltrans 2020: 6).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel

notation as VdB, which serves to compress the range of numbers required to describe vibration (FTA 2018: 111; Caltrans 2020: 7). This is based on a reference value of 1 micro inch per second.

The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2018: 120; Caltrans 2020: 27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings (FTA 2018: 113). Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants.

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment.

Table 3.11-2 summarizes the general human response to different ground vibration-velocity levels.

Table 3.11-2 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 μ inch/second and based on the root mean square (RMS) velocity amplitude.

Source: FTA 2018: 120.

SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The manner in which a noise level decreases with distance depends on the following factors:

Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the

attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Sound levels can be increased over large distances (e.g., more than 500 feet) from the source because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013: 2-41; FTA 2018: 42). Barriers higher than the line of sight provide increased noise reduction (FTA 2018: 16). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2018: 15, 104, 106).

3.11.3 Regulatory Setting

FEDERAL

US Environmental Protection Agency Office of Noise Abatement and Control

The US Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

Federal Transit Administration

To address the human response to ground vibration, FTA has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 3.11-3. In addition, FTA has also established construction vibration damage criteria, shown below in Table 3.11-4.

Table 3.11-3 Ground-Borne Vibration (GBV) Impact Criteria for General Assessment

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
<i>Category 1:</i> Buildings where vibration would interfere with interior operations.	65 ⁴	65 ⁴	65 ⁴
<i>Category 2:</i> Residences and buildings where people normally sleep.	72	75	80
<i>Category 3:</i> Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB = vibration decibels referenced to 1 μ inch/second and based on the root mean square (RMS) velocity amplitude.

¹ "Frequent Events" is defined as more than 70 vibration events of the same source per day.

² "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

³ "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

⁴ This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018.

Table 3.11-4 FTA Construction Damage Vibration Criteria

Land Use Category	PPV, in/sec
Reinforced-concrete, steel or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

Notes: PPV= Peak particle velocity in inches per second.

Source: FTA 2018.

In addition to vibration criteria, FTA has established construction noise criteria for residential uses which is used in this analysis for all other types of noise sensitive receptors identified. The FTA daytime construction noise criterion for residential receptors is 90 dB L_{eq} .

STATE

California General Plan Guidelines

The State of California General Plan Guidelines 2017, published by the California Governor's Office of Planning and Research (OPR) (2017), provides guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many local jurisdictions, these guidelines are used to derive local noise standards and guidance. Citing EPA materials and the State Sound Transmissions Control Standards, the State's general plan guidelines recommend interior and exterior CNEL of 45 and 60 dB for residential units, respectively (OPR 2017: 378).

California Department of Transportation

In 2020, Caltrans published the Transportation and Construction Vibration Manual (Caltrans 2020). The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 3.11-5 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 3.11-5 Caltrans Recommendations Regarding Levels of Vibration Exposure

PPV (in/sec)	Effect on Buildings
0.4-0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006-0.019	Vibration unlikely to cause damage of any type

Notes: PPV= peak particle velocity; in/sec = inches per second.

Source: Caltrans 2020: 38.

California Building Code Sound Transmission Standards

Noise within habitable units that is attributable to external sources is regulated by the California Building Standards codified in the California Code of Regulations, Title 24, Part 2, Chapter 12, Section 1206.04, *Allowable Interior Noise Levels*. These standards are enforceable at the time of construction or during occupancy and apply to habitable units. Under these standards, the interior noise levels attributable to exterior sources shall not exceed 45 decibels (dB) in any habitable room. The noise metrics used to measure these levels can be day-night average sound level (L_{dn}) or CNEL, consistent with the local general plan. An acoustical analysis documenting compliance with the interior sound

level standards shall be prepared for structures containing habitable rooms. Under Public Resources Code Section 25402.1(g), all cities and counties in the State are required to enforce the adopted California Building Code, including these standards for noise in interior environments.

LOCAL

The project site is located in an unincorporated area of El Dorado County, in the eastern portion of the El Dorado Hills Community Region. Therefore, the El Dorado County General Plan and El Dorado County Code (EDCC) are discussed under local regulations.

El Dorado County General Plan

The Public Health, Safety, and Noise Element of the El Dorado County General Plan includes objectives, goals, and policies related to noise level standards (El Dorado County 2024). These Noise Element policies and guidance are also implemented as Performance Standards in Chapter 130.37 of the EDCC. The Noise Element states that noise-sensitive developments include hospitals, schools, churches, and residential areas. The following General Plan noise objectives and policies are relevant to the project:

- ▶ **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.
 - **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 HS-3 [presented as Table 3.11-6 in this EIR] or the performance standards of Table HS-4 [presented as Table 3.11-7 in this EIR], 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 HS-3 and HS-4 [presented as Table 3.11-6 and Table 3.11-7 in this EIR], 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.
 - **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 HS-4 [presented as Table 3.11-7 in this EIR] 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 unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels specified in Table HS-3 [presented as Table 3.11-6 in this EIR].
 - **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 HS-3 [Table 3.11-6] at existing noise-sensitive land uses.
 - **Policy 6.5.1.10:** To provide a comprehensive approach to noise control, the County shall:
 - Develop and employ procedures to ensure that noise mitigation measures required pursuant to an acoustical analysis are implemented in the project review process and, as may be determined necessary, through the building permit process.
 - Develop and employ procedures to monitor compliance with the standards of the Noise Element after completion of projects where noise mitigation measures were required.

- The zoning ordinance shall be amended to provide that noise standards will be applied to ministerial projects with the exception of single-family residential building permits if not in areas governed by the Airport Land Use Compatibility Plan. (See Objective 6.5.2.)

Table 3.11-6 Maximum Allowable Noise Exposure for Transportation Noise Sources

Land Use	Outdoor Activity Areas (L _{dn} /CNEL) ¹	Interior Spaces (L _{dn} /CNEL)	Interior Spaces (L _{eq}) 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	--	--

Notes: L_{dn} = day-night level; CNEL = Community Noise Equivalent; L_{eq} = Equivalent Continuous Sound Level

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 3.11-7 Noise Level Performance Protection Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources

Noise Level Descriptor	Daytime 7:00 a.m. – 7:00 p.m. Community	Daytime 7:00 a.m. – 7:00 p.m. Rural	Evening 7:00 p.m. – 10:00 p.m. Community	Evening 7:00 p.m. – 10:00 p.m. Rural	Night 10:00 p.m. – 7:00 a.m. Community	Night 10:00 p.m. – 7:00 a.m. Rural
Hourly L _{eq} , dB	55	50	50	45	45	40
Maximum level, dB	70	60	60	55	55	50

Notes: L_{eq} = Equivalent Continuous Sound Level

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.

In Community areas 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. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all effected property owners and approved by the County.

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 6.5.1.11:** The standards outlined in Table HS-5, Table HS-6, and Table HS-7 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 HS-5, HS-6, and HS-7 shall not apply to public projects to alleviate traffic congestion and safety hazards.
- **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:
 - Where existing or projected future traffic noise levels are less than 60 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 5 dBA L_{dn} 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} at the outdoor activity areas of residential uses, an increase of more than 3 dBA L_{dn} caused by a new transportation noise source will be considered significant; and
 - Where existing or projected future traffic noise levels are greater than 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA L_{dn} caused by a new transportation noise will be considered significant.
- **Policy 6.5.1.13:** When determining the significance of impacts and appropriate mitigation to reduce those impacts for new development projects, including ministerial development, the following criteria shall be taken into consideration:
 - A. In areas in which ambient noise levels are in accordance with the standards in Table HS-4 [presented as Table 3.11-7 in this EIR], increases in ambient noise levels caused by new non transportation 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 HS-4 [presented as Table 3.11-7 in this EIR], increases in ambient noise levels caused by new non transportation noise sources that exceed 3 dBA shall be considered significant.

El Dorado County Code of Ordinances

The County Code of Ordinances establishes noise performance standards for noise sensitive land uses in Chapter 130.37, Noise Standards. This chapter complies with General Plan Goal 6.5 (Acceptable Noise Levels), and supplements EDCC Chapter 9.16 (Noise) by establishing standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses. The following noise regulations are applicable to the project:

Chapter 130.37 Noise Standards

Section 130.37.020 Exemptions

The following noise sources shall be exempt from the standards of this Chapter:

- D. Noise sources associated with property maintenance, such as lawn mowers, trimmers, snow blowers, power tools in good working order, and cutting of firewood for non-commercial personal use, provided that the activities take place between the hours of 8:00 a.m. and 9:00 p.m. on weekdays and 9:00 a.m. to 9:00 p.m. on weekends and federal holidays.
- F. Noise sources associated with work performed by public or private utilities in the maintenance or modification of its facilities.
- H. Traffic on public roadways, railroad line operations, aircraft in flight, and any other activity where regulation thereof has been preempted by state or federal law.
- I. Construction (e.g., construction, alteration or repair activities) during daylight hours provided that all construction equipment shall be fitted with factory installed muffling devices and maintained in good working order.

Section 130.37.50 Acoustic Analysis Requirements

An acoustic analysis prepared by an acoustic specialist shall be required prior to discretionary authorization or permit approval for the following uses:

- A. New noise-generating land uses likely to exceed the performance thresholds in the Tables in Section 130.37.060 (Tables 3.11-6 and 3.11-7) in this Chapter when proposed in areas adjacent to sensitive receptors. Noise sources may include industrial operations, outdoor recreation facilities, outdoor concerts and events utilizing amplified sound systems, commercial land uses, fixed sound sources, and other similar uses; or
- B. New noise-sensitive land uses proposed in areas exposed to existing or projected exterior noise levels likely to exceed the thresholds in the Tables in Section 130.37.060 (Tables 3.11-6 and 3.11-7) in this Chapter.

Section 130.37.060 Noise Standards

The following standards shall apply to all development projects for which an acoustic analysis is required:

- A. Noise sensitive land uses affected by non-transportation noise sources shall not exceed standards set forth in Table 130.37.060.1, Noise Level Performance Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources, as presented in Table 3.11-7 of this EIR.
 1. Each of the noise levels specified in Table 3.11-7 shall be lowered by 5 dB 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 5 dB 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, as presented in Table 3.11-6 of this EIR.
 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 dB L_{dn} 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 dB L_{dn} 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 dB L_{dn} /CNEL thresholds using a practical application of the best-available noise reduction measures, an exterior noise threshold 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.

- C. Construction-related noise shall allow for exceptions to the evening and nighttime 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.

3.11.4 Environmental Setting

EXISTING NOISE ENVIRONMENT

Existing Noise-and Vibration-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption if a project consists of nighttime construction. Additional land uses such as schools, transient lodging, historic sites, cemeteries, parks, and places of worship are also generally considered sensitive to increases in noise levels. Buildings and structures within these land use types are considered vibration-sensitive in addition to commercial and industrial buildings. However commercial and industrial land uses and buildings are not considered noise sensitive. The nearest noise-sensitive receptors are existing and future single-family homes that border the project property line to the north, east, south, and west.

Existing Noise Sources and Ambient Levels

The predominant noise source in the project area is vehicle traffic on the surrounding roadway network (e.g., Green Valley Road, El Dorado Hills Boulevard, and Silva Valley Parkway). Existing traffic noise levels on roadway segments in the project area were modeled using calculation methods consistent with FHWA Traffic Noise Model, Version 2.5 (FHWA 2004) and using average daily traffic (ADT) volumes calculated using peak volume data provided in the transportation analysis conducted by Kimley-Horn and summarized in Section 3.14, "Transportation." Table 3.11-8 summarizes the modeled existing traffic noise levels at 50 feet from the centerline of each area roadway segment identified for analysis and lists distances from each roadway centerline to the 70, 65, and 60 L_{dn} traffic noise contours. For further details on traffic-noise modeling inputs and parameters, refer to Appendix H.

Table 3.11-8 Summary of Modeled Existing Traffic Noise Levels

Roadway	Segment Description	L_{dn} at 50 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to $dB A L_{dn}$ Contour		
			70	65	60
El Dorado Hills Boulevard	Francisco Drive to Green Valley Road	64.2	13	42	133
El Dorado Hills Boulevard	Harvard Way to Francisco Parkway	68.8	38	120	381
El Dorado Hills Boulevard	Wilson Boulevard to Harvard Way	70.0	50	158	501
El Dorado Hills Boulevard	Serrano Parkway to Wilson Boulevard	70.0	50	157	495
El Dorado Hills Boulevard	Saratoga Way to Serrano Parkway	70.3	54	170	537
El Dorado Hills Boulevard	South end of Saratoga Way/US 50 WB Ramp to North end of Saratoga Way/Park Drive	70.5	56	179	565
Latrobe Road	US 50 EB Ramp to US 50 WB Ramp	71.8	76	242	764
Silva Valley Parkway	Tong Road to Serrano Parkway	68.8	38	121	383
Silva Valley Parkway	Serrano Parkway to Harvard Way	67.7	29	93	294
Silva Valley Parkway	Harvard Way to Appian Way	65.6	18	58	183
Silva Valley Parkway	Appian Way to Green Valley Road	64.9	15	49	155
Green Valley Road	Sophia Parkway to Francisco Drive	73.0	101	318	1006

Roadway	Segment Description	L _{dn} at 50 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to dBA L _{dn} Contour		
			70	65	60
Green Valley Road	Francisco Drive to El Dorado Hills Boulevard	71.2	66	210	665
Green Valley Road	El Dorado Hills Boulevard to Silva Valley Parkway	71.2	67	210	665
Green Valley Road	Silva Valley Parkway to Loch Way	69.8	48	153	483
Green Valley Road	Loch Way to Malcolm Dixon Cutoff	69.7	47	149	471
Green Valley Road	Malcolm Dixon Cutoff to Malcolm Dixon Road	69.7	46	146	462
Green Valley Road	Project Driveway 2 to Deer Valley Road	69.6	46	145	458
Green Valley Road	Deer Valley Road to Silver Springs Parkway	69.8	48	150	476
Green Valley Road	Silver Springs Parkway to Bass Lake Road	70.0	50	159	502
Green Valley Road	Bass Lake Road to Cambridge Road	70.3	54	169	536
Green Valley Road	Cambridge Road to Cameron Park Drive	69.5	44	140	442
Green Valley Road	Malcolm Dixon Road to Project Driveway 1	69.6	46	145	458
Green Valley Road	Project Driveway 1 to Project Driveway 2	69.6	46	145	458
Francisco Drive	Green Valley Road to El Dorado Hills Boulevard	66.7	23	74	233
Harvard Way	El Dorado Hills Boulevard to Silva Valley Parkway	65.5	18	56	176
Serrano Parkway	El Dorado Hills Boulevard to Silva Valley Parkway	66.5	23	71	226

Notes: L_{dn} = day-night level

All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. All noise levels are reported as A-weighted noise levels.

Source: Data modeled by Ascent 2024; based on traffic data provided by Kimley Horn (2022).

To characterize the existing ambient noise environment at the project site, long-term (24-hour continuous) (LT) and short-term (ST) ambient noise level measurements were conducted at three locations in the project area on February 27, 2024. The locations of the noise monitoring sites are shown in Figure 3.11-1. A Larson Davis Laboratories Model LxT precision integrating sound level meter was used for the ambient noise level measurement surveys. The meters were calibrated before use with Larson Davis Laboratories Model CAL200 acoustical calibrators to ensure measurement accuracy. The measurement equipment meets all pertinent specifications of the American National Standards Institute. The results of the ambient noise measurement survey are summarized in Table 3.11-9.

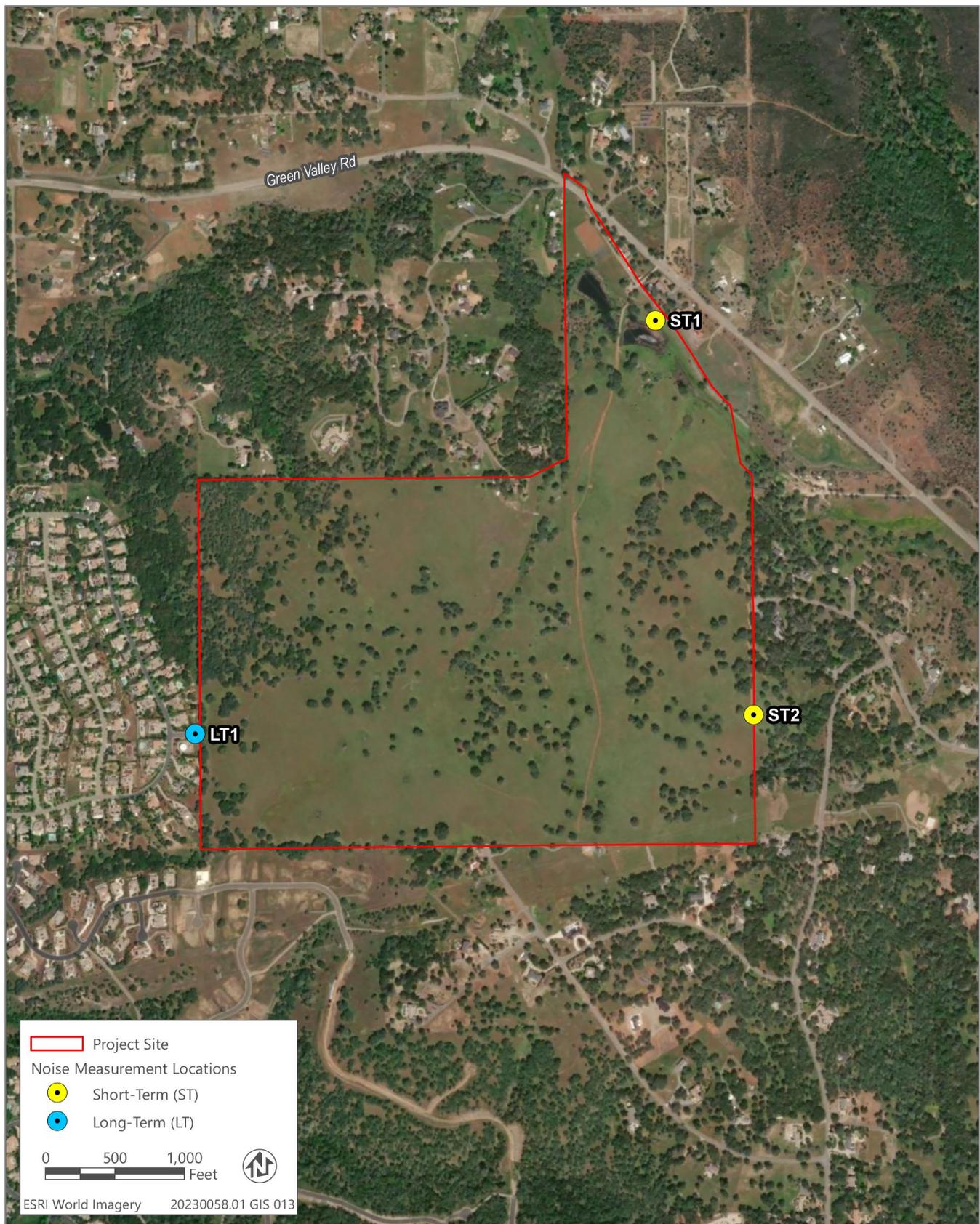
Table 3.11-9 Summary of Existing Ambient Noise Level Survey

Short-Term Measurements (15-minute)					
Noise Measurement Locations ¹	Date	Start/Stop Time	L _{eq} dBA	L _{max} dBA	L _{min} dBA
ST 1	2/27/2024	7:43 am/8:01 am	59.7	74.5	41.4
ST 2	2/27/2024	8:47 am/9:02 am	45.6	61.4	34.3
Long-Term Measurement (24-hour)					
	Date	Start/Stop Time.	CNEL dBA		
LT 1	2/27/2024-2/28/2024	9:45 a.m. / 10:26 a.m.	44.8		
			Daytime/Nighttime L _{eq} (10-hour average)		
			43.0/37.8 dBA L _{eq}		

Notes: L_{eq} = equivalent continuous sound level

¹ Refer to Figure 3.11-1 for ambient noise level measurement locations; ST = short-term measurement; LT = long-term measurement

Source: Data collected by Ascent in 2024.



Source: adapted by Ascent in 2024.

Figure 3.11-1 Noise Measurement Locations

3.11.5 Environmental Impacts and Mitigation Measures

METHODOLOGY

Construction Noise and Vibration

To assess potential short-term (construction-related) noise and vibration impacts, sensitive receptors and their relative exposure were identified. Project-generated construction source noise and vibration levels were determined based on methodologies, reference emission levels, and usage factors from FTA's *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2018) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise and vibration emissions for specific equipment or activity types are well documented and the usage thereof common practice in the field of acoustics.

Operational Noise and Vibration

With respect to non-transportation noise sources (e.g., stationary) associated with project implementation, the assessment of long-term (operational-related) impacts was based on reconnaissance data, reference noise emission levels, and measured noise levels for activities and equipment associated with project operation (e.g., heating, ventilation and air conditioning [HVAC] units, delivery docks), and standard attenuation rates and modeling techniques.

To assess potential long-term (operation-related) noise impacts due to project-generated increases in traffic, noise levels were estimated in using calculations consistent with the Federal Highway Administration's Traffic Noise Model Version 2.5 (FHWA 2004) and project-specific traffic data. The analysis is based on the reference noise emission levels for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and ground attenuation factors. Truck usage and vehicle speeds on area roadways were estimated from field observations and the project-specific traffic report. Note that the modeling conducted does not account for any natural or human-made shielding (e.g., the presence of walls or buildings) or reflection off building surfaces.

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, noise policies and standards in the EDCC, County General Plan policies, and Caltrans and FTA vibration and noise standards, the project would result in a significant noise or vibration impact if it would:

Construction Noise

- ▶ For this analysis, short-term temporary noise levels generated by construction of the project are evaluated against the FTA recommended daytime construction noise level thresholds, which establishes a sound level threshold of 90 dB L_{eq} at the property line of nearby residential land use.

Stationary Noise

Long-term stationary noise impacts are assessed in conjunction with the County's noise performance standards and General Plan Policy 6.5.1.13. The following standards were applied as thresholds for operational stationary noise sources:

- ▶ The project site falls within the Community Region area (as depicted in General Plan Figure LU-1). The Community Region stationary noise standards applicable to the project are:
 - 55 dBA L_{eq} and 70 dBA L_{max} between 7:00 a.m. and 7:00 p.m.
 - 50 dBA L_{eq} and 70 dBA L_{max} between 7:00 p.m. and 10:00 p.m.
 - 45 dBA L_{eq} and 70 dBA L_{max} between 10:00 p.m. and 7:00 a.m.

- ▶ If the project results in a 5 dB increase and the existing ambient noise complies with the Community Region land use stationary noise standards.
- ▶ If the project results in a 3 dB increase in noise levels and the existing ambient noise does not comply with the Community Region land use stationary noise standards.

Long-term Traffic Noise

- ▶ Long-term traffic noise levels are evaluated against the County's General Plan Policy 6.5.1.12 regarding incremental noise increases.
 - Where existing or projected future traffic noise levels are less than 60 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 5 dBA L_{dn} 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} at the outdoor activity areas of residential uses, an increase of more than 3 dBA L_{dn} caused by a new transportation noise source will be considered significant; and
 - Where existing or projected future traffic noise levels are greater than 65 dBA L_{dn} at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA L_{dn} caused by a new transportation noise will be considered significant.

Construction Vibration

- ▶ The County General Plan and the EDCC do not have vibration-related standards. Therefore, construction-generated vibration levels exceeding Caltrans' recommended standards with respect to the prevention of structural building damage (0.2 and 0.08 in/sec PPV for normal and historical buildings, respectively) or FTA's maximum-acceptable-vibration standard with respect to human response (80 VdB for residential uses) at nearby existing vibration-sensitive land uses will be considered significant.

Airport Noise

- ▶ For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; or
- ▶ For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

ISSUES NOT DISCUSSED FURTHER

Airport Noise

The project is not located within two miles of an airport land use plan. The airport located nearest to the project site is Cameron Park Airport, approximately 2.8 miles southeast of the project site. The project site is well outside the Cameron Park Airport's 55-60 dB CNEL noise contour. Therefore, the project would not expose people residing or working in the project area to excessive noise levels. Thus, noise impacts due to proximity to public and private airports and airstrips are not discussed further.

Noise Associated with Property Maintenance

Notice of Preparation comments identified noise concerns associated with property maintenance. A mechanized trimmer and leaf blower each generate 81 dB L_{eq} and 77 dB L_{eq} at a distance of 3 feet, respectively (Berger, Neitzel, and Kladden 2015: 9, 10). Therefore, noise levels associated with property maintenance would exceed the County's stationary noise standard of 55 dB L_{eq} if a mechanized trimmer or leaf blower were to operate within 57 feet or 36 feet of a sensitive receptor, respectively (See Appendix H). Although it is possible that landscaping would take place for short periods within close proximity to the property line of neighboring residential uses adjacent to the project

site (i.e., back yards), this noise source is constantly moving and would not create a long-term or constant affect. Additionally, noise levels associated with property maintenance would occur during the allowable daytime hours to minimize noise disturbance and would therefore not have an effect on people while they typically sleep. As discussed in Section 3.11.3 Regulatory Setting above, noise sources associated with property maintenance, such as lawn mowers, trimmers, power tools in good working order, and cutting of firewood for non-commercial personal use are exempt from the County noise ordinance between the hours of 8:00 a.m. and 9:00 p.m. on weekdays and 9:00 a.m. to 9:00 p.m. on weekends and federal holidays. Additionally, these types of noise generating activities would not be newly introduced to the existing noise environment as the project site is surrounded by residential uses that generate the same types of noise from routine landscaping and other maintenance. For these reasons, the project would not result in an adverse effect to humans. Thus, noise impacts due to proximity to public and private airports and airstrips are not discussed further.

Long-term Groundborne Vibration

The project would not result in the development of any major sources of ground vibration such as commercial railways or passenger rail transit lines. Therefore, development facilitated by the project would not result in long-term operational activities associated with permanent or substantial levels of ground vibration. Therefore, this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: Construction Activities Could Result in a Substantial Temporary Increase in Noise Levels at Nearby Noise-Sensitive Receptors

Short-term construction-generated noise levels associated with the project would expose nearby noise-sensitive receptors to noise levels that could exceed the FTA's recommended daytime construction noise criteria of 90 dB L_{eq} . Thus, this impact would be **significant**.

On-Site Improvements

As described in Chapter 2, "Project Description," construction would occur in one phase over a 5-year period and begin in April of 2025. Construction would occur between the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. on weekends and federal holidays. No blasting, pile driving, or nighttime construction activity is proposed.

Construction of the project would involve noise-generating activities. Short-term construction noise levels on and near the project site would fluctuate depending on the type, number, and duration of usage for the varying types of heavy-duty equipment. The effects of construction noise largely depend on the type of construction activities being performed, noise levels generated by those activities, distances to noise-sensitive receptors, the relative locations of noise attenuating features such as vegetation and existing structures, and existing ambient noise levels.

Construction noise would be temporary in nature and would include noise from activities such as site preparation, truck hauling of material, paving, and construction of buildings, and grading. This analysis used the default construction equipment mix to estimate construction noise levels. Specifically, this analysis modeled the simultaneous use of the three loudest pieces of equipment during the loudest construction phase (i.e., grading) for a relatively conservative construction noise scenario. The three loudest pieces of equipment are a grader, excavator, and dozer.

To evaluate on-site construction noise, which involves the movement of several pieces of equipment about a site, the center of construction activity, consistent with FTA guidance, was used as the reference point for evaluation. Noise levels generated by grading activities at the center of the project site at nearby residential receptors are shown in Table 3.11-10.

Table 3.11-10 Construction Noise Levels from Center of Project Site at Nearest Sensitive Receptors

	Reference Noise Level at 50 feet (L_{eq})	Distance from Center of Project Site to Nearest Residential Uses (feet)	Noise Level at Nearest Residential Uses (dB L_{eq})
Grading	85.8	600	64.2

Note: L_{eq} = equivalent continuous sound level

Source: Modeled by Ascent in 2024.

As shown in Table 3.11-10, construction noise levels during grading, the loudest phase, would reach approximately 64.2 dB L_{eq} at 600 feet. Understanding that construction noise can fluctuate depending on the specific equipment being used and their location in proximity to nearby receptors, based on the equipment modeled, the 90 dBA L_{eq} threshold would be exceeded within 31 feet of construction activity where if three pieces of equipment were operating simultaneously. There are no off-site receptors located within this distance. The nearest off-site receptor is a residence located along West Green Springs Road, near the northern part of the project site approximately 50 feet west of the project boundary. Noise at this location would be 85.8 dBA (Table 3.11-10). Considering existing daytime ambient noise levels were measured to be 43.0 dBA L_{eq} (See Table 3.11-9), construction noise of approximately 86 dBA L_{eq} , would be perceived as a more than a doubling of the existing noise levels (i.e., a 10 dBA increase in perceived as a doubling in noise). However, anticipated noise from on-site construction would not result in substantial increases in noise that would exceed the 90 dBA L_{eq} threshold at nearby receptors. Further, all construction would occur during the daytime hours, not resulting in potential adverse effects associated with sleep disturbance.

Off-Site Improvements

The proposed project includes off-site improvements encompassing operational roadway enhancements, water supply infrastructure, wastewater infrastructure, and electrical infrastructure. Unlike on-site construction where the construction site is fixed, off-site improvements progress linearly resulting in exposure to construction noise at any individual receptor for relatively brief durations. Figures 2-8a, 2-8b, 2-10, and 2-12 delineate the locations of these off-site improvements. For instance, equipment associated with off-site water, wastewater (including alternative wastewater pipeline alignment), and electrical improvements would be minimal such as excavators and trenchers. The anticipated construction noise levels from this equipment range between 73 dB L_{eq} to 80 dB L_{eq} at a distance of 50 feet and would exceed the applicable threshold of 90 dBA L_{eq} within 12 feet (applying a standard attenuation rate of 6 dB for each doubling of the distance from the source). Residential receptors are located adjacent to where off-site construction activity would occur. Therefore, noise levels could exceed the FTA 90 dBA L_{eq} daytime construction noise standard which would result in a substantial noise increase.

Summary

On-site construction activities would not exceed applicable thresholds at any nearby existing sensitive land use. However, proposed off-site improvements could occur adjacent to existing sensitive land uses; thus, could exceed the FTA daytime construction noise standard of 90 dB L_{eq} along the roadways where off-site improvements would occur. Therefore, although short-term, it is possible that sensitive receptors would be exposed to excessive construction noise levels. Therefore, construction noise impacts would be **significant**.

Mitigation Measures

Mitigation Measure 3.11-1: Implement Construction-Noise Reduction Measures

To minimize noise levels during construction activities, the construction contractor shall comply with the following measures during all construction work:

- ▶ Construction activities shall be limited to the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, and 8:00 a.m. and 5:00 p.m. on weekends, and on federally recognized holidays.
- ▶ All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.

- ▶ Where construction equipment with back-up alarms are available they shall be equipped with either audible self-adjusting backup alarms or alarms that only sound when an object is detected. Self-adjusting backup alarms shall automatically adjust to 5 dB over the surrounding background levels. All non-self-adjusting backup alarms shall be set to the lowest setting required to be audible above the surrounding noise levels.
- ▶ For all off-site improvement construction activities anticipated to occur within 31 feet of an existing residential land use, install a temporary solid barriers (e.g., plywood, noise curtains) around the construction site or construction equipment such that the line-of-sight between construction activities and the adjacent sensitive land uses is blocked.
- ▶ Designate a disturbance coordinator and post that person's telephone number conspicuously around the construction site and provide to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem.
- ▶ Restrict construction vehicle navigation to and from the project site to Green Valley Road so that heavy vehicles and equipment are not accessing the site via local roadways (as detailed in Mitigation Measure 3.14-3).

Significance after Mitigation

Implementation of Mitigation Measure 3.11-1 would provide reductions in levels of construction noise exposure at noise-sensitive receptors by ensuring proper equipment use; requiring a temporary solid barrier around construction activities adjacent to sensitive receptors; requiring the use of enclosures, shields, and noise curtains (noise curtains typically can reduce noise by up to 10 dB [EPA 1971]); and limiting construction vehicle navigation to and from the project via Green Valley Road. This mitigation measure would be consistent with Objective 6.5.1 and associated Policy 6.5.1.12. However, in some instances installing temporary noise curtains may not be possible. Specifically, this could occur in locations near off-site improvement sites where there is not enough space between the construction activities and the receiving land use to adequately install the noise curtains. Further, because linear construction activities generally move along rapidly, not remaining in one location for extended periods of time, installing noise curtains that adequately blocks the line-of-site between mobile equipment and receivers may not always be achieved. For these reasons, it is possible that noise would not adequately be reduced at all off-site improvement locations, and this impact would remain **significant and unavoidable**.

Impact 3.11-2: Exposure of Persons to or Generation of Excessive Vibration

The use of heavy-duty construction equipment can generate various increased vibration levels. According to the FTA, vibratory rollers generate ground vibration levels of 0.20 in/sec PPV at 25 feet. Based on modeling conducted, vibration levels from the use of a vibratory roller could exceed the threshold of significance of 0.2 in/sec PPV for structural damage within 26 feet and 80 VdB for human annoyance within 73 feet of any vibratory roller activities. Because the project site is directly adjacent to residential uses to the west and south, it cannot be guaranteed that construction would not occur within 73 feet of those sensitive receptors. Therefore, the impact would be **significant**.

Construction activities generate varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be unnoticeable at the lowest levels, result in low-rumbling sounds and detectable vibrations at moderate levels, and high levels of vibration can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping.

Pile driving and blasting are the types of construction activities that typically generate the highest vibration levels and, therefore, are of greatest concern when evaluating construction-related vibration impacts. However, pile driving and blasting would not occur during project construction. Construction activities would require the use of heavy-duty off-road equipment such as rollers, graders, excavators, and trucks (e.g., material and equipment haul trucks). Based on reference vibration levels for typical construction equipment, a vibratory roller could generate the greatest level of ground vibration at 0.210 PPV in/sec and 94 VdB at 25 feet (FTA 2018: 184).

Based on FTA recommended procedure for applying a propagation adjustment to reference levels, vibration levels from the use of a vibratory roller could exceed the threshold of significance of 0.2 in/sec PPV for structural damage within 26 feet of vibratory roller activities (see Appendix H for vibration modeling details). As discussed above, construction associated with off-site improvements could occur adjacent to existing residential structures; thus, the potential for structural damage could occur depending on the proximity of construction activities to existing structures and the type of equipment required for off-site improvement work. A vibratory roller operated within 73 feet of a building could expose the building occupants to ground vibration levels that exceed the FTA maximum-acceptable vibration standard of 80 VdB with respect to human annoyance for residential uses. As detailed in the Environmental Setting section, there are residential uses located directly adjacent to the project boundary; thus, there is the possibility that construction activity would take place within 73 feet from sensitive receptors. Therefore, there could be an exceedance of FTA's standard of 80 VdB with respect to human annoyance for residential uses. Furthermore, although EDCC Section 130.37.020 exempts construction activity from the County's noise performance standard, it does not specify standards or exemptions specific to vibration. Therefore, the project has the potential to result in structural damage and exposure of persons to excessive levels of groundborne vibration during construction. This impact would be **significant**.

Mitigation Measure 3.11-2: Develop and Implement Construction Vibration Control Measures

This mitigation measure would apply to construction activity within 73 feet of an occupied residence or other sensitive receptor.

Vibration control measures shall be identified prior to construction and implemented during construction for areas where sensitive receptors or structures are located (i.e., 75 feet from occupied residential structures and 26 feet from any structure). The vibration control measures shall be included in a program and provided to the County prior to construction activities. Vibration control measures shall consider all potential vibration-inducing activities that would occur within the distance parameter described above and include various measures, setback distances, precautions, monitoring programs, and alternative methods to vibration-intensive activities with the potential to result in adverse impacts to sensitive receptors or structures. The following vibration control measures (or other equally effective measures approved by the County) shall be included in the plan:

- ▶ To prevent structural damage and disturbance for sensitive land uses, minimum setback requirements for different types of ground vibration producing activities (e.g., vibratory roller) shall be established based on the proposed activities and locations, once determined. Established setback requirements can be breached only if a project-specific, site-specific, technically adequate ground vibration study indicates that the buildings would not be exposed to ground vibration levels in excess of 0.2 PPV (in/sec) or 80 VdB, and ground vibration measurements performed during the construction activity confirm that the buildings are not being exposed to levels in excess of these limits.
- ▶ Limit vibration-intensive activities to the daytime hours between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 5:00 p.m. on Saturday and Sunday.
- ▶ Phase high-impact activities so as not to occur simultaneously with other construction activities.

Significance after Mitigation

Implementation of Mitigation Measure 3.11-4 would serve to reduce potential vibration impacts from construction activities by requiring minimum setbacks to sensitive land uses/structures, monitoring vibration levels during construction, use of alternative equipment when appropriate, and restrictions on hours of use to avoid impacts to structures and sensitive uses. Through these measures, potential impacts on structures and sensitive land uses from vibratory roller activity would be avoided. Therefore, the impact would be **less than significant**.

Impact 3.11-3: Exposure to Existing Sensitive Receptors to New Stationary Noise Sources

Project related stationary noise would consist of recreational activities and HVAC mechanical equipment. Depending on the proximity of future HVAC equipment to neighboring sensitive receptors, HVAC noise levels could potentially result in an 8 dBA increase over existing noise levels and exceed the applicable County nighttime noise standard of 45 dBA L_{eq} and 55 dBA L_{max} for stationary noise sources. Therefore, stationary noise impacts would be **potentially significant**.

The project would subdivide the site into 379 residential lots, clubhouse lot and a park site lot. Noise sources associated with residential land uses include mechanical equipment such as HVAC equipment, and people talking/recreating at the park and clubhouse.

Heating and Cooling Mechanical Equipment

Noise levels from residential HVAC equipment vary depending on the unit efficiency, size, and location, but generally range from 60 to 70 dB L_{eq} at a distance of 3 feet (Carrier 2022). Noise from heating and cooling mechanical equipment emits a steady state noise, meaning that the frequency (Hertz) content and the loudness do not fluctuate much if at all over time. Thus, reference L_{eq} noise levels would also be representative of the L_{max} levels for this noise source. Project site plans show that some of the proposed residential lots would abut existing residential land use property lines to the north, east, west and south. To comply with the County stationary noise standard, typical HVAC equipment would need to be installed at least 15 feet from the nearest receptor property line for noise levels to be reduced to the daytime noise standard of 55 dBA L_{eq}/L_{max} and 50 feet to achieve the nighttime standard of 45 dBA L_{eq} . Daytime noise would not be a concern as equipment would not be located within 15 feet of existing residences. Regarding nighttime noise, HVAC equipment could potentially be placed within 50 feet of an off-site receptor property line. Considering existing nighttime noise levels (i.e., 37.8 dBA L_{eq} , Table 3.11-9), the allowable increase in noise from stationary sources would be 5 dBA, as existing noise is below the applicable noise standard of 45 dBA L_{eq} and when combining HVAC noise with existing noise, noise levels could reach 45.8 dBA L_{eq} , an 8 dBA increase; thus, stationary noise from HVACs could potentially result in substantial increases in noise exceeding applicable nighttime standards of 45 dBA L_{eq} .

Recreational Uses

Park Lot A

Noise sources associated with parks are typically limited to human communication such as speech and laughter. Noise levels associated with speech can vary depending on the nature of the communication. A conversation between two people using a normal voice is 60 dBA at 3 feet. If people are in an environment that requires raised voices for audibility, voice levels would typically be 66 dBA at 3 feet (The Engineering Toolbox 2005). Shouting and screaming voices, sometimes heard from adults or children during playtime or recreational activities, are approximately 78 dBA at 3 feet (The Engineering Toolbox 2005). The proposed park would mostly consist of people using normal to slightly raised voices. People would also be spread out throughout the park site so the cumulative noise level from multiple people would be insignificant.

To estimate average noise levels, the distance from the center of these lots to the nearest receptor property line was measured. As shown in Table 3.11-11, noise levels from recreational activities within the park would not exceed the applicable non-transportation daytime (applied to daytime park/recreation non transportation uses) County noise standards of 55 dBA L_{eq} or 70 dBA L_{max} (Table 3.11-7) at the nearest residential receptor.

Table 3.11-11 Noise Levels from Park Lot A and Open Space Lots

Lot Number and Use	Distance to Nearest Residential Property Line	Attenuated Noise Levels	
		Normal Voices, dBA L_{eq}	Raised Voices, dBA L_{max}
Lot A – Park	285 feet	20	26

Notes: L_{eq} = equivalent noise level; L_{max} = maximum sound level

Source: The Engineering Toolbox 2005. Required Voice Levels at a Distance; Acoustics Group, Inc. 2012. Noise Study for Cimarron Pickleball Courts in Surprise, AZ.

Clubhouse

The residential development would build a clubhouse owned and maintained by the project's HOA. The clubhouse would offer amenities such as a community building, pool, barbeque facilities, bocci ball courts, and a pickle ball court. Similar to open spaces and parks, the primary noise sources associated with the club house amenities, would be from normal to raised voices. Pickleball noise is more complex as it involves impact noise from ball to paddle. Noise measurements conducted for a pickleball study concluded that average noise levels from pickleball ball courts with up to 32 players were 66.9 dBA L_{eq} at 10 feet from the edge of the courts (Acoustics Group 2012). Though the study did not provide L_{max} levels, it is not uncommon for L_{max} levels for dynamic noise sources to be 10 dBA higher than the L_{eq} . Therefore, it is reasonable to assume L_{max} levels of 76.9 dBA for pickleball activities.

The nearest existing residential receptors to the proposed clubhouse and amenities are single-family homes to the west and south, approximately 890 feet and 700 feet, respectively. As shown in Table 3.11-12, noise levels from voices and pickleball activities would significantly attenuate at distances of 700 and 890 feet and not result in a substantial increase over existing conditions.

Table 3.11-12 Noise Levels from Clubhouse

Nearest Receptors	Distance from Clubhouse to Residential Property Line	Attenuated Noise Levels			
		Normal Voices, dBA L_{eq}	Raised Voices, dBA L_{max}	Pickleball, dBA L_{eq}	Pickleball, dBA L_{max}
Single-family homes to the west	890 feet	11	17	28	38
Single-family homes to the south	700 feet	13	19	30	40

Notes: L_{eq} = equivalent noise level; L_{max} = maximum sound level

Source: The Engineering Toolbox 2005. Required Voice Levels at a Distance; Acoustics Group, Inc. 2012. Noise Study for Cimarron Pickleball Courts in Surprise, AZ.

Summary

Stationary noise source levels associated with open space lots, park Lot A, and the club house would not result in a noise increase above the County noise ordinance of 55 dBA L_{eq} and 70 dBA L_{max} . Daytime noise from HVACs would not be located close enough to off-site receptors such that daytime noise standards of 55 dBA L_{eq} would be exceeded. However, it is possible that HVAC equipment be located within 50 feet of off-site sensitive uses, such that the nighttime standard of 45 dBA L_{eq} could be exceeded, resulting in a substantial increase (i.e., 8 dBA) in noise over existing nighttime noise levels. This impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 3.11-3: Heating, Ventilation, and Cooling Noise

An acoustical assessment shall be required as part of building permit submittal associated with proposed HVAC equipment, subject to County review and approval prior to issuance of building permits. The acoustical assessment shall evaluate the potential operational noise impacts attributed to HVAC noise. The acoustical assessment shall be completed by a qualified acoustical consultant that shall verify that the chosen mechanical equipment for individual development projects would not exceed the county noise ordinance for stationary noise sources of 55 dB L_{eq} and 70 dB L_{max} (daytime) or 45 dBA L_{eq} and 55 dBA L_{max} (nighttime) at the receiving property line of the nearest sensitive receptor. Where the acoustical analysis determines that noise levels would exceed applicable noise standards, noise reduction measures shall be identified. Noise reduction measures may include, but are not necessarily limited to:

- ▶ Selecting equipment with sound power specifications that do not exceed the 45 dBA L_{eq} or 55 dBA L_{max} at the nearest noise-sensitive receptor.
- ▶ Installing the equipment at a distance no less than the 50 feet.
- ▶ Employing noise dampening techniques such as solid enclosures or parapets walls to block the line-of-sight between the noise source and the noise-sensitive receptors. Blocking the line of sight with a solid barrier or enclosure would reduce noise levels by at least 5 dBA.

Significance after Mitigation

Implementation of Mitigation Measure 3.11-2 would reduce potentially significant HVAC noise levels at noise-sensitive receptors to a less-than-significant level. Screening distances, acoustical shielding methods, and proper selection of HVAC units with low noise emissions would ensure HVAC noise levels would comply with the stationary noise standard of 45 dB L_{eq} and 55 dB L_{max} at receiving sensitive receptor property lines. This mitigation measure would be consistent with General Plan Objective 6.5.1 and associated Policies 6.5.1.1, 6.5.1.3, and 6.5.1.7. This impact would be **less than significant** with mitigation.

Impact 3.11-4: Long-Term Traffic Noise Increases

Project operation would result in an increase in traffic volumes along project-affected roadways, resulting in long-term permanent increases in traffic noise. Traffic noise modeling was conducted for the existing and the existing plus project conditions. Based on modeling conducted and applicable County of El Dorado allowable incremental noise increase standards (General Plan Policy 6.5.1.12), a significant increase in noise would occur if traffic noise would increase by 1.5 dB L_{dn} to 5 dB L_{dn} depending on the existing noise level. None of the studied roadway segments would result in a traffic noise increase of 1.5 dB L_{dn} or more. Therefore, this impact would be **less than significant**.

Project-generated vehicle trips would result in an increase in average daily traffic volumes and associated increases in traffic noise levels along affected roadway segments near the project site. To analyze the impact of project-generated operational transportation noise sources, traffic noise levels under existing and existing-plus-project conditions were modeled for affected roadway segments. Refer to Appendix H for detailed noise modeling input parameters. Table 3.11-13 summarizes the overall net change in noise level as a result of project-generated traffic.

Table 3.11-13 Summary of Modeled Traffic Noise Levels under Existing and Existing Plus Project Conditions

Roadway	Segment Description	Noise (dB L_{dn} /CNEL) at 50 feet from Roadway		Change
		Existing	Plus Project	
El Dorado Hills Boulevard	Francisco Drive to Green Valley Road	64.2	64.4	0.2
El Dorado Hills Boulevard	Harvard Way to Francisco Parkway	68.8	68.9	0.1
El Dorado Hills Boulevard	Wilson Boulevard to Harvard Way	70.0	70.0	0.0
El Dorado Hills Boulevard	Serrano Parkway to Wilson Boulevard	70.0	70.0	0.0
El Dorado Hills Boulevard	Saratoga Way to Serrano Parkway	70.3	70.4	0.1
El Dorado Hills Boulevard	South end of Saratoga Way/US 50 WB Ramp to North end of Saratoga Way/Park Drive	70.5	70.6	0.1
Latrobe Road	US 50 EB Ramp to US 50 WB Ramp	71.8	71.9	0.1
Silva Valley Parkway	Tong Road to Serrano Parkway	68.8	68.9	0.1
Silva Valley Parkway	Serrano Parkway to Harvard Way	67.7	67.8	0.1
Silva Valley Parkway	Harvard Way to Appian Way	65.6	65.8	0.2
Silva Valley Parkway	Appian Way to Green Valley Road	64.9	65.0	0.1
Green Valley Road	Sophia Parkway to Francisco Drive	73.0	73.2	0.2
Green Valley Road	Francisco Drive to El Dorado Hills Boulevard	71.2	71.5	0.3
Green Valley Road	El Dorado Hills Boulevard to Silva Valley Parkway	71.2	71.6	0.4
Green Valley Road	Silva Valley Parkway to Loch Way	69.8	70.6	0.8
Green Valley Road	Loch Way to Malcolm Dixon Cutoff	69.7	70.5	0.8
Green Valley Road	Malcolm Dixon Cutoff to Malcolm Dixon Road	69.7	70.4	0.7
Green Valley Road	Project Driveway 2 to Deer Valley Road	69.6	69.9	0.3
Green Valley Road	Deer Valley Road to Silver Springs Parkway	69.8	69.9	0.1

Roadway	Segment Description	Noise (dB L _{dn} /CNEL) at 50 feet from Roadway		Change
		Existing	Plus Project	
Green Valley Road	Silver Springs Parkway to Bass Lake Road	70.0	70.1	0.1
Green Valley Road	Bass Lake Road to Cambridge Road	70.3	70.4	0.1
Green Valley Road	Cambridge Road to Cameron Park Drive	69.5	69.6	0.1
Green Valley Road	Malcolm Dixon Road to Project Driveway 1	69.6	70.4	0.8
Green Valley Road	Project Driveway 1 to Project Driveway 2	69.6	70.3	0.7
Francisco Drive	Green Valley Road to El Dorado Hills Boulevard	66.7	66.9	0.2
Harvard Way	El Dorado Hills Boulevard to Silva Valley Parkway	65.5	65.5	0.0
Serrano Parkway	El Dorado Hills Boulevard to Silva Valley Parkway	66.5	66.5	0.0

Notes: dB = a-weighted decibels; L_{dn} = Day-Night Level; CNEL = Community Noise Equivalent

Source: Modeled by Ascent Environmental (2024); based on traffic data provided by Kimley-Horn (2022).

The General Plan includes standards related to incremental noise increases (General Plan Policy 6.5.1.12) that are designed to protect sensitive land uses from excessive traffic noise levels. As detailed in the Thresholds of Significance section, above, the project would result in a significant traffic noise impact if the project meets one of the following criteria:

- ▶ 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 dB L_{dn} caused by a new transportation noise source will be considered significant.
- ▶ Where existing or projected future traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of residential uses, an increase of more than 3 dB L_{dn} caused by a new transportation noise source will be considered significant; and
- ▶ Where existing or projected future traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of residential uses, an increase of more than 1.5 dB L_{dn} caused by a new transportation noise will be considered significant.

As shown in Table 3.11-13, none of the studied roadway segments would result in an increase of 1.5 dB L_{dn} or more. Additionally, as detailed in the Regulatory Setting, a 3-dB increase, or doubling of noise, would be perceptible to the human ear (Caltrans 2013). Thus, because none of the studied roadway segments would result in a 3 dB increase or more, project-generated traffic noise would not result in an adverse effect to sensitive receptors in the vicinity of the project site. Therefore, the impact from traffic noise would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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3.12 POPULATION AND HOUSING

This section describes the existing population and housing conditions on the site and its surrounding area. Descriptions and analysis in this section are based on information provided by El Dorado County, the California Department of Finance (DOF), and the Sacramento Area Council of Governments (SACOG). The analysis includes a description of the methods used for assessment, as well as the potential direct and indirect impacts of project implementation.

One comment was received on the Notice of Preparation (NOP) regarding population and housing, and it included a request for the analysis to include regional housing needs allocation goals. This comment is addressed where appropriate throughout this section. The NOP and comments submitted in response to it are included in Appendix A.

3.12.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws are applicable to the provision of population and housing for the project.

STATE

State law requires each local government in California to adopt a comprehensive, long-term general plan for the physical development of its city or county, and the housing element is one of seven mandated elements of the general plan. Housing elements address the existing and projected housing needs of all economic segments of the community. The 2021 Housing Element in the El Dorado County General Plan identifies the nature and extent of housing needs in incorporated and unincorporated areas, and the housing element itself includes goals, policies, and implementation programs for the planning and development of housing.

State law sets out a process for determining each local jurisdiction's fair share of regional housing needs. As a first step in the process, the California Department of Housing and Community Development (HCD) assigns each regional council of governments a required number of new housing units for that region, including affordable housing. The council of governments, in turn, allocates the region's share to cities and counties in the region.

LOCAL

Regional Housing Needs Allocation and Regional Housing Needs Plan

The State of California requires every county and city to plan for and accommodate its fair share of regional growth through the Regional Housing Needs Allocation (RHNA) process. As part of the RHNA process, HCD issues a Regional Housing Needs Determination, which includes an overall housing needs number, as well as a breakdown of the number of units required in four household income categories, every 8 years. The distribution of the county's overall allocation into four income categories, defined by state law, is intended to facilitate the equitable distribution of lower income households throughout the county's communities. Using this information, the Sacramento Area Council of Governments (SACOG) must develop a Regional Housing Needs Plan (RHNP) and administer the RHNA process in its six-county region, including El Dorado County, the five other member counties (Placer, Sacramento, Sutter, Yolo, and Yuba), and their respective cities. HCD's intent, through implementation of the RHNA process, is to promote the following objectives.

- ▶ Increase the housing supply and the mix of housing types, tenure and affordability in all cities and counties within the region in an equitable manner.
- ▶ Promote infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns.
- ▶ Promote an improved intraregional relationship between jobs and housing.

The RHNA, part of SACOG's 2021–2029 RHNP, establishes the total number of housing units and expected growth that each member city and county must plan for within the 8-year planning period of its general plan housing element. The SACOG 2021–2029 RHNP, adopted in March 2020, formally allocates to SACOG cities and counties their fair share of the region's projected housing needs. SACOG's total housing allocation for the current planning period of October 31, 2021 through October 31, 2029 is 153,512 dwelling units (SACOG 2020).

As further described below, SACOG adopted the 2021-2029 RHNP in March 2020 identified the unincorporated area of El Dorado County RHNA at 4,994 units (excluding the Tahoe Basin).

Sacramento Area Council of Governments Regional Housing Needs Allocation

In 2020, the SACOG Board finalized its 2021-2029 RHNA, a state-required determination of the number of housing units cities and counties must plan for in their housing element updates. The RHNA allocates housing units in each of four income categories to each city and county in the six-county region, including the Tahoe Basin portions in El Dorado and Placer Counties. The region's total housing allocation is 153,512 units for the plan period which covers October 31, 2021 through October 31, 2029 (SACOG 2020). Unincorporated El Dorado County's allocation is for 4,994 housing units. Following SACOG's adoption of the RHNA, all cities and counties were required to update the housing element of their general plans by October 31, 2021. Accordingly, El Dorado County updated its housing element in 2021 to reflect its allocation. It should be noted that SACOG prepared its 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), an update to the 2016 MTP/SCS.

2020 Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy

SACOG is designated by the federal government as the Metropolitan Planning Organization for the Sacramento region, which requires SACOG to maintain a regional transportation plan that must be updated every 4 years in coordination with each local government. Placer and El Dorado Counties are different in this arrangement in that each county has its own State designation as a Regional Transportation Planning Agency responsible for developing its own transportation plan. SACOG is the Regional Transportation Planning Agency for Sacramento, Sutter, Yolo, and Yuba Counties. SACOG works in coordination with the Placer County Transportation Planning Agency and the El Dorado County Transportation Commission to ensure consistency between these two county-specific plans and the broader regionwide plan.

The MTP/SCS is required to be a 20-year multimodal transportation plan that is financially feasible, achieves health standards for clean air, and addresses Statewide climate goals. The MTP/SCS land use forecast identifies the general location of different types of land uses, residential densities, employment intensities, and natural resource areas.

The project site is located within an Established Community,¹ per the 2020 MTP/SCS. The 2020 MTP/SCS forecasts about 2,330 new housing units in El Dorado Hills and 4,070 new housing units within Established Communities in El Dorado County (SACOG 2019).

El Dorado County General Plan

The El Dorado County General Plan Housing Element includes policies related to housing. Relevant policies from the Housing Element include:

- ▶ **Policy HO-1.2:** To ensure that projected housing needs can be accommodated, the County shall maintain an adequate supply of suitable sites that are properly located based on environmental constraints, community facilities, and adequate public services.
- ▶ **Policy HO-1.5:** The County shall direct higher density residential development to Community Regions and Rural Centers.

¹ Established Communities are typically the areas adjacent to, or surrounding, Center and Corridor Communities. Many are characterized as "first tier," "inner ring," or mature suburban communities. Some are today's newest subdivisions and suburbs. Local land use plans aim to maintain the existing character and land use pattern in these areas. Land uses in Established Communities are typically made up of existing low- to medium-density residential neighborhoods, office and industrial parks, or commercial strip centers (SACOG 2019).

3.12.2 Environmental Setting

POPULATION AND POPULATION GROWTH

In developing the 2020 MTP/SCS, SACOG prepares a land use forecast required to accommodate the regional growth forecast of population, employment, and housing demand. The 2020 MTP/SCS includes a forecast of the amount of growth that will occur in SACOG's plan area over a 20-year planning period (2020-2040). The regional growth forecast is based on economic and demographic projections through 2040, adopted and pending land use plans and policies, market and economic considerations, and other state and federal policies and regulations that can affect the locations and pace of growth.

As calculated in preparation for the 2020 MTP/SCS, the SACOG area is estimated to add approximately 620,000 new residents between 2016 and 2040 (Table 3.12-3).

Table 3.12-1 SACOG Regional Population Growth Forecast

	2016	2035	2040
Population	2,376,311	2,903,090	2,996,832
Increase	-	526,779	93,742

Source: SACOG 2019.

El Dorado County is, and is expected to remain, one of California's fastest-growing regions. During the 20-year period from 1990 to 2010, the County's population increased by approximately 44 percent. From 2010 to 2020, the County's population increased 5.6 percent to a total of 191,185. Unincorporated areas within El Dorado County experienced a 7 percent increase of approximately 159,722 from 2010 to 2020. The population of El Dorado County's unincorporated area grew by 66 percent during the 1990 to 2020 period. For the 25-year period of 2010 to 2035, the county's population is expected to increase by 37 percent from 180,921 to 248,623 (El Dorado County 2021). Table 3.12-2 shows the population increase from 1990 to 2020 in 10-year increments for the entire County and for the unincorporated County.

Table 3.12-2 Comparison 1990, 2000, 2010, and 2020 Population

	1990	2000	2010	2020	% Change 2000-2010	% Change 2010-2020
Population, Entire County	125,995	156,299	181,058	191,185	15.8%	5.5%
Population, Unincorporated County*	96,054	123,080	149,266	159,722	21.3%	7.0%

*The unincorporated county does not include the City of South Lake Tahoe or the City of Placerville.

Source: El Dorado County 2021.

According to a study completed by BAE Urban Economics, Inc. in 2019, discussed in El Dorado County's 2021-2029 Housing Element Update, El Dorado County's population could grow by an additional 16,846 persons by 2030 from 2020. Table 3.12-3 summarizes the population projections presented in the County's Housing Element Update. According to these projections, it is expected that the El Dorado County population would increase 8.8 percent between 2020 and 2030, with an average annual growth rate of 0.9 percent per year. By 2040, it is projected for the County to grow to approximately 225,419 residents, an increase of approximately 36,413 new residents compared to the current population of 189,006 residents (El Dorado County 2022).

Table 3.12-3 Population Forecast for El Dorado County

	2020	2025	2030	2035	2040
Population	191,581	199,521	208,457	217,619	225,419
Increased from previous period	-	7,940	8,936	9,162	7,800
Average annual growth from previous period	-	4.1%	4.5%	4.4%	3.5%

Sources: El Dorado County 2022.

HOUSING UNITS AND VACANCY

Countywide, the 2023 DOF estimates indicate that there were 95,278 housing units, 76,649 of which were occupied as a result of the County's vacancy rate of 19.6 percent, suggesting a housing market with relative housing availability. However, DOF estimates do not reflect second homes and seasonal vacation housing accurately. More specifically, the high countywide vacancy rate, averaged across cities and the unincorporated area, reflects the high number of seasonal vacation housing in the city of South Lake Tahoe, where the 2023 vacancy rate was 42.8 percent (DOF 2023). However, this data does not seem to be reflected in local housing conditions. Vacancy rates could reflect second-home ownership—the City of South Lake Tahoe is a tourist destination—and other factors, such as some housing in disrepair.

The housing vacancy rate is a measurement of general housing availability and represents the percentage of all available housing units that are vacant or unoccupied at a particular time. Generally, a low vacancy rate, 5 percent or less, suggests that housing availability is low; conversely, a high vacancy rate (greater than 8 percent) may indicate a high number of seasonal units (second homes) are vacant. When a region maintains a "healthy" vacancy rate of between 5 percent and 8 percent, housing consumers generally have a wide choice of housing types and prices to choose from. As vacancy rates drop, shortages generally result in higher housing costs and limited choices. The County's housing vacancy rate usually exceeds the state's vacancy rate. In 2023, the vacancy rate was 19.6 percent in El Dorado County and 6.6 percent in California (DOF 2023).

According to the DOF, in 2023, there was a total population of 157,873 residents with 74,357 dwelling units in the unincorporated area of the county, of which 65,290 were single-family detached units, 839 were single-family attached units, 1,597 were multifamily structures with two or four units, 3,312 were multifamily structures with five or more units, and 3,319 were mobile homes (DOF 2023). A total of 62,877 dwelling units were estimated to be occupied in the unincorporated area in 2023, leaving approximately 11,480 housing units unoccupied, reflecting a vacancy rate of 15.4 percent. Table 3.12-4 displays the DOF housing estimates for the County in 2023. Countywide, the average household size is 2.52 persons, however, per the United States Census (US Census), the El Dorado Hills Community has an average household size of 2.84 persons (US Census 2023).

Table 3.12-4 2023 Population and Housing Estimates for El Dorado County

	Population	Total Housing Units	Single-Family Detached	Single-Family Attached	Multifamily Two to Four Units	Multifamily Five or More Units	Mobile Homes	Occupied Units	Vacancy Rate
Unincorporated Area	157,873	74,357	65,290	839	1,597	3,312	3,319	62,877	15.4%
County Total	189,006	95,278	78,224	1,496	4,859	6,669	4,030	76,649	19.6%

Source: DOF 2023.

3.12.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

To evaluate the potential impacts of the project on the population and housing, the existing population and housing conditions in El Dorado County were compared to the anticipated population and housing growth under implementation of the project. This examination of population and housing conditions is based on information obtained from review of available population and housing projections from the County, SACOG, and DOF. In determining the level of significance, the analysis assumes compliance with relevant federal and state laws, regulations, and ordinances.

THRESHOLDS OF SIGNIFICANCE

A population, employment, and housing impact is considered significant if implementation of the project would do any of the following:

- ▶ induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); and/or
- ▶ displace substantial numbers of existing people or homes, necessitating the construction of replacement housing elsewhere.

ISSUES NOT DISCUSSED FURTHER

The project would eliminate an existing residence at 1856 Green Valley Road, but does not propose or involve any actions that would displace substantial numbers of people. The project site is primarily undeveloped and is used for seasonal grazing. Thus, there would be no impacts associated with the displacement of substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere. This issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.12-1: Induce Substantial Unplanned Population Growth in an Area, Either Directly or Indirectly

The proposed project would consist of General Plan land use designation amendments, rezoning, and approval of a tentative subdivision map to create 379 residential lots. With the future development of the proposed residential lots, the proposed project would create population growth within the unincorporated area of El Dorado County. However, the County, through its General Plan, anticipates additional population growth over the next 20 years. The site is also part of assumed areas of development within the SACOG 2020 MTP/SCS. As such, the population growth increase associated with the project is considered to be within the County's projected increase and no substantial unplanned population growth would occur. Therefore, this impact would be **less than significant**.

Implementation of the proposed project would result in General Plan land use designation amendments, rezoning, and approval of a tentative subdivision map for the creation of 379 residential lots, clubhouse lot, park site lot, six landscape lots, and nine open space lots within unincorporated El Dorado County. The proposed 379 residential lots would be developed over 280 acres that are designated as Low-Density Residential (LDR) and zoned as Residential Estate (RE-10), with a maximum allowable density of one housing unit per 5 acres per the General Plan and a minimum lot size of 10 acres per the Zoning Ordinance. A maximum of approximately 56 residential lots are allowable under the project site's current land use and zoning. Therefore, under current land use designations and zoning, the proposed project would exceed the number of allowable housing units and lots within the site. However, Policy 2.2.1.2 in the General Plan states that within Community Regions and Rural Centers, the LDR designation shall remain in effect until a specific project is proposed that applies the appropriate level of analysis and planning and yields the necessary expansion of infrastructure.

As reported by the DOF, El Dorado County had a total population of 189,006 in 2023. Of these residents, 157,873 were reported to live in unincorporated El Dorado County (DOF 2023). As mentioned above, it is expected that the El Dorado County population would increase 8.8 percent between 2020 and 2030, with an average annual growth rate of 0.9 percent per year (El Dorado County 2022). By 2040, it is projected for the County to grow to approximately 225,419 residents, an increase of approximately 36,413 new residents compared to the current population of 189,006 residents. The proposed project would generate housing-related population growth, by adding approximately 379 new residential units to the County's housing stock, given the assumption that each proposed residential lot would contain a minimum of one housing unit per lot. Of the proposed 379 residential lots, 214 would be classified as "age-restricted" units, and would be restricted to residents who are 55 years or older in age. As noted by the US Census, in

the El Dorado Hills Community, there is an average household size of approximately 2.84 persons per household. Based on the average of 2.84 persons per household, the proposed project could result in a total population of up to 1,077 residents. However, it is expected that the proposed age restricted residential units would have fewer residents due to the lack of children living in the said units. The 2021 Heritage at Carson Creek Public Facilities Financing Plan estimated a persons per household of 1.8 for an approved age restricted development project in the Carson Creek Specific Plan (DPFG 2021:Table A.5). Using this persons per household factor for the 214 age restricted residential lots and 2.84 persons per household for the remaining 165 residential lots, the project would result in a population of 854 residents on the project site. Thus, the anticipated population on the project site is expected to range between 854 to 1,077 residents.

While the population of El Dorado County has been on a slow decline since 2020 and may not meet the future projected population estimates, the County expects a 0.9 percent annual growth rate per year between 2020 and 2030, estimating approximately 1,724 new residents per year, with a total population of 225,419 residents by 2040. Due to the County's anticipated population growth, the project population 854 to 1,077 residents would be within the County's projected population growth. However, this population increase does not account for additional projects in the County that have the potential to contribute to the County's projected and planned growth. Additionally, the project would comply with the County's General Plan policy, HO-1.2, by contributing to provide an adequate number of housing units for the anticipated population growth of the county.

Additionally, the project site is included in SACOG's 2020 MTP/SCS as part of an Established Community and is considered to be accounted for in SACOG's growth pattern estimation for the region (SACOG 2020). The 2020 MTP/SCS forecasts about 2,330 new housing units in El Dorado Hills and 4,070 new housing units in the Established Community Type in El Dorado County. The project would account for approximately 16 percent of total new housing units in El Dorado Hills by 2040.

The proposed project is located within the El Dorado Hills Community Region, which by definition, provides opportunities that allow for continued population growth and economic expansion while preserving the character an extent of existing rural centers and urban communities, emphasizing both the natural setting and built design elements which contribute to the quality of life and economic health of the County (General Plan Objective 2.1.1 and associated Policy 2.1.1.2). The extension of infrastructure onto the project site, including roadways and utilities that would serve the proposed development, would not contribute to or cause additional growth to occur outside of the Community Region boundaries or elsewhere within the vicinity of the project site, as project proposed infrastructure improvements are designed to just accommodate project's demands and not to support growth outside of the General Plan El Dorado Hills Community Region boundary.

The proposed project would not induce substantial unanticipated population growth within the county, and the population increase would fall within the projected increase identified in the County's Housing Element Update. Sections 3.1 through 3.17 of this Draft EIR address the environmental effects associated with the growth proposed by this project. Therefore, impacts related to direct or indirect substantial unplanned population growth would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.13 PUBLIC SERVICES AND RECREATION

This section provides an overview of the regulatory and environmental settings for public services and recreation in the project area and evaluates the potential for implementation of the project to affect the availability, service level, and capacity of fire protection services, police protection services, parks and recreation, and public schools, and if an effect is determined to occur, whether new or expanded facilities would be required that could result in a potentially significant impact on the environment. Other publicly provided utility services, such as water and wastewater treatment, stormwater management, and solid waste, are addressed in Section 3.9, "Hydrology and Water Quality," and Section 3.15, "Utilities and Service Systems."

Comments were submitted in response to the notice of preparation (NOP) that relates to police and fire protection capacity, the status of emergency access (EA), impacts to schools, local recreation capacity, and parks facilities that will be included in the project design. These issues are addressed in this section. For a discussion of wildfire management and fire protection, the reader is referred to Section 3.17, "Wildfire and Evacuation." See Appendix A for all NOP comments received.

3.13.1 Regulatory Setting

FEDERAL

National Fire Protection Association

The National Fire Protection Association publishes standards, including the following standard, that are useful to the El Dorado County Fire Department:

NFPA 1710: Provides standards for response time; including a call processing time of 60 seconds; a personnel turnout time of 60 seconds for medical, and one minute twenty seconds for fires; and a travel time of 4 minutes (240 seconds). This equates to a 6 minute 20 second response time standard for fire calls.

STATE

California Fire Code

The California Fire Code is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. It establishes minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. The California Fire Code also contains requirements related to emergency planning and preparedness, fire service features, building services and systems, fire resistance-rated construction, fire protection systems, and construction requirements for existing buildings, as well as specialized standards for specific types of facilities and materials. Structures used for indoor cultivation of cannabis and cannabis-supportive uses (e.g., manufacturing, distribution, processing, microbusinesses, and retail nurseries) would be subject to applicable sections of the California Fire Code.

Title 24 CCR, Part 2, Section 701A.3 (New Buildings Located in Any Fire Hazard Severity Zone) requires that new buildings located in any Fire Hazard Severity Zone within SRAs, any local agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted, shall comply with all the requirements of Chapter 7A. These requirements include the following:

- ▶ roofing design to be fire resistant and constructed to prevent the intrusion of flames and embers (Section 705A);
- ▶ attic ventilation designed to be resistant to the intrusion of flames and embers into the attic area of the structure (Section 706A);

- ▶ exterior walls design (including vents, window, and door) with noncombustible or ignition-resistant material and resist the intrusion of flame and ember (Section 707A and 707A);
- ▶ decking be designed with ignition-resistant material (Section 709A); and
- ▶ ancillary buildings and structures comply with the above provisions (Section 710A).

Public Resources Code Section 4291

CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors (PRC 4201-4204 and Government Code 51175-89). Factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. CAL FIRE has identified two types of wildland fire risk areas: 1) wildland areas that may contain substantial forest fire risks and hazards, and 2) very high fire hazard risk zones.

PRC Section 4291 gives CAL FIRE the authority to enforce 100 feet of defensible space around all buildings and structures on SRA lands. PRC Sections 4790 through 4799.04 provide the regulatory authority for CAL FIRE to administer the California Forest Improvement Program. PRC Sections 4113 and 4125 give CAL FIRE the responsibility for preventing and extinguishing wildland fires in the SRAs. The PRC also includes fire safety statutes that restrict the use of equipment that may produce a spark, flame, or fire; requires the use of spark arrestors on construction equipment with internal combustion engines; specifies requirements for the safe use of gasoline-powered tools in fire hazard areas; and specifies fire suppression equipment that must be provided for various types of work in fire-prone areas.

New development located in SRAs are subject to the following requirements:

- ▶ Determination that new subdivisions are consistent with regulations adopted by the State Board of Forestry and Fire Protection pursuant to PRC Sections 4290 and 4291 or are consistent with local ordinances certified by the State Board of Forestry and Fire Protection as meeting or exceeding the state regulations (14 CCR Section 1266.01)
- ▶ Defensible space of 100 feet around all buildings and structures (PRC Section 4291 and Title 14 CCR Section 1299.03)
- ▶ Provision of adequate emergency access and egress (PRC Sections 4290 and 4291, Title 14 CCR Sections 1273.01 through 1273.09)
- ▶ Emergency water requirements (Title 14 CCR Sections 1275.01 through 1275.04)
- ▶ Building signage and number requirements (PRC Sections 4290 and 4291 and Title 14 CCR Sections 1274.01 through 1274.04)

The 2022 California Fire Code incorporates the 2021 International Fire Code and contains regulations related 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 hazard safety, hazardous materials and device storage, and many other general and specialized fire safety requirements for new and existing buildings and the surrounding premises.

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards (as 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.

California Occupational Safety and Health Administration

In accordance with CCR Title 8, Section 1270, "Fire Prevention," and Sections 6773, "Fire Protection and Fire Equipment," the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include guidelines on the handling of highly combustible materials; fire hose sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all firefighting and emergency medical equipment.

State School Funding

California Education Code Section 17620 authorizes the governing board of any school district to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the school district, for the purpose of funding the construction or reconstruction of school facilities, provided that the district can show justification for levying of fees.

California Education Code Section 17070.10 et seq., the Leroy F. Greene School Facilities Act (commonly known as Senate Bill (SB) 50 [Statutes 1998, Chapter 407, Section 19]), instituted a school facility program by which school districts can apply for state construction and modernization funds. This legislation imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development.

California Government Code Section 65995 provides for school facility financing and the mitigation of impacts on the need for school facilities from land use approvals by establishing statutory fees that may be levied or imposed in connection with, or made a condition of, any land use approval, to be used for the construction or reconstruction of school facilities. It limits the fee to be collected to the statutory fee unless a school district conducts a school facility needs analysis (Section 65995.6) and meets certain conditions. Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed under Section 17620 of the Education Code is deemed to be full and complete mitigation of the impact for the planning, use, development, or provision of adequate school facilities.

Quimby Act

The Quimby Act (California Government Code Section 66477), enacted in 1966, is a state law, applied at the local level, that specifies the parkland dedication requirements for new residential development. The Quimby Act allows local jurisdictions to require developers of new residential subdivisions to dedicate up to 3 acres of park area per 1,000 persons, or, if the amount of existing neighborhood and community park area exceeds that limit, the jurisdiction can require a higher ratio not to exceed 5 acres of land per 1,000 persons or the payment of in-lieu fees for park or recreational purposes. Although the Quimby Act requires the dedication of new parkland, it does not address the development, operation, or maintenance of new park facilities. Therefore, the Quimby Act provides open space needed to develop park and recreational facilities but does not ensure the development of the land or the provision of a park.

LOCAL

El Dorado County General Plan

The El Dorado County General Plan contains goals, objectives, and policies related to public services and recreation critical to the county's future growth and development (El Dorado County 2019). The following objectives and policies related to public services and recreation are relevant to the project:

- ▶ **Objective 5.1.2 - Concurrency:** Ensure through consultation with responsible service and utility purveyors that adequate public services and utilities, including 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 [presented below as Table 3.13-1], 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 [Capital Improvements Plan] 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 (Draft EIR Table 3.13-1).

The following Levels of Service shall apply to the review of discretionary projects.

Table 3.13-1 El Dorado County General Plan Table 5-1: Minimum Level of Service

	Community Region	Rural Center and Rural Region
Public water source	As determined by purveyor	As determined by purveyor, when applicable
Private well	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 school districts	As determined appropriate by school districts
Parks	Specific plan for new community 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 2019.

- **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.
- ▶ **Objective 5.1.3:** Efficient Development Patterns: 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.
- ▶ **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 5.7.3:** 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.

- ▶ **Objective 5.7.4: Medical Emergency Services:** Adequate medical emergency services available to serve existing and new development recognizing that levels of service may differ between Community Regions, and Rural Centers and Regions.
 - **Policy 5.7.4.1:** Prior to approval of new development, the applicant shall be required to demonstrate that adequate medical emergency services are available and that adequate emergency vehicle access will be provided concurrent with development.
 - **Policy 5.7.4.2:** Prior to approval of new development, the Emergency Medical Services Agency 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.
- ▶ **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 6.2.3: Adequate Fire Protection.** Application of uniform fire protection standards to development projects by fire districts.
 - **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 fire protection district that, concurrent with development, adequate emergency water flow, fire access, and fire fighting personnel and equipment will be available in accordance with applicable State and local fire district standards.
 - **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 6.2.3.3:** Day care centers shall be subject to conformance with all applicable sections of Title 19 of the Fire Code
- ▶ **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 [see Table 3.13-2] for the acquisition and development of park facilities:

Table 3.13-2 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
<i>Specific Standards (Neighborhood and Community Parks)</i>	
Cameron Parks 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 9.1.1.2:** Neighborhood parks shall be primarily focused on serving walk-to or bike to recreation needs. When possible, neighborhood parks should be adjacent to schools. Neighborhood parks are generally 2 to 10 acres in size and may include a playground, tot lot, turf areas, and picnic facilities.
- **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 9.2.2: 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 9.2.2.2:** New development projects creating community or neighborhood parks shall provide mechanisms (e.g., homeowners associations, or benefit assessment districts) for the ongoing development, operation, and maintenance needs of these facilities if annexation to an existing parks and recreation service district/provider is not possible.

El Dorado Local Agency Formation Commission

The El Dorado Local Agency Formation Commission (LAFCO) is a state-mandated local agency whose jurisdiction is all of El Dorado County. The California Legislature directs the El Dorado LAFCO to promote orderly growth and development, discourage urban sprawl while preserving open space and agricultural lands, and encourage efficient service areas for local governments.

LAFCOs are responsible for reviewing and approving proposed boundary changes for most public agencies, including annexations and detachments of territory to or from cities and special districts; incorporations of new cities; formations of new special districts; and consolidations, mergers, and dissolutions of existing districts. In addition, LAFCOs must review and approve contractual service agreements, determine spheres of influence (plans that show future service areas and boundaries) for each city and district, and may initiate proposals involving district consolidation and dissolution. As described in Chapter 2, "Project Description," the project involves annexation into the El Dorado Hills Community Services District (CSD) and El Dorado Hills Fire Department. The following policies must be met for the project to receive annexation from the El Dorado LAFCO:

- ▶ **Policy 3.2.16:** When evaluating environmental impacts discovered during the Initial Study process, LAFCO will identify such impacts as potentially significant and adverse if:
 - Build-out of the proposed project may cause service levels to decline below established standards, costs of service provision to rise substantially to the detriment of service levels, or cause those currently receiving

service to receive reduced or inadequate services especially when such change may cause adverse health and safety or other physical impacts;

- Build-out of the proposed project may cause the infrastructure capacity of a service provider to exceed planned and safe limits especially when such change may cause adverse health and safety or other physical impacts;
- The proposed project includes or plans for infrastructure capacity, especially water and sewer lines, that exceed the needs of the proposed project and may be used to serve areas not planned for development, especially those containing prime agricultural land, mineral, sensitive plant and wildlife or other important resources;
- The proposed plan could cause health and safety or other physical impacts because a service provider is incapable of providing service, the proposal has an illogical boundary, or elements needed to provide service (water supply, treatment facilities, equipment, energy) are not available, or stressed beyond capacity.
- The proposed project is substantially inconsistent with applicable Sphere of Influence Plans, long range and area service plans, phased land use plans of any city or county, or resource conservation plans of the state or federal government.
- In the case of Sphere of Influence and area of service plans, the Environmental Coordinator reviews the appropriate plans and determines whether the level of significance warrants additional review. In the case of public agency land use or resource plans, the affected agency shall provide specific information regarding the nature and substance of the project's potential impacts upon its plans or programs.
- The proposed project may induce substantial growth on important agricultural and open space lands because it would:
 - Permit the extension of, or require, infrastructure such as flood control levees or water diversions, electrical, water or sewer lines, especially trunk lines, roadways or other public facilities that would permit new development in a substantial area currently constrained from development;
 - Be adversely and substantially inconsistent with the agricultural, open space, resource conservation or preservation, growth management, trip reduction, air quality improvement or other plans, policies or Ordinances of the General, Community, Specific or other Plan of the land use jurisdiction responsible for the project site or vicinity.
 - Cause significant adverse cumulative impacts when considered in conjunction with other recent, present and reasonably foreseeable projects;
 - Result in substantial noncontiguous development which, in turn, results in adverse physical impacts;
 - Have no need for service and the proposed project adversely affects important public resources or the public health and safety;
 - Adversely impact animal or plant species either listed as, or determined to be, endangered, rare, or threatened as provided in §15380; or
 - Be identified as potentially significant when completing the Initial Study checklist adopted as Exhibit A of LAFCO's CEQA procedures.
- ▶ **Policy 3.3.2.2:** If service cannot be provided without expanding service capacity or constructing infrastructure (other than at parcel connections to service), then the following information shall be provided:
 - A description of any required facility or infrastructure expansions or other necessary capital improvements;
 - The likely schedule for completion of the expanded capacity project, the viability of the needed project, and the relation of the subject project to the overall project and project time line;

- A list of required administrative and legislated processes, such as CEQA review or State Water Resources Board allocation permits, including assessment of likelihood of approval of any permits and existence of pending or threatened legal or administrative challenges if known;
 - The planned total additional capacity;
 - The size and location of needed capital improvements;
 - The proposed project cost, financing plan and financing mechanisms including a description of the persons or properties who will be expected to bear project costs; and
 - Any proposed alternative projects if the preferred project cannot be completed (include information in letters "a" through "f" for each proposed alternative).
- ▶ **Policy 3.4.1: Consistency with General and Specific Plans.** For the purposes of this policy, a project is consistent if the type and level of services to be provided are consistent with and appropriate to the applicable General or Specific Plan land use designations and document text, and the applicable General or Specific Plan is legally adequate and internally consistent. The Commission will not approve projects that are inconsistent with the applicable General or Specific Plan unless the following circumstances are shown to exist:
- The site is fully developed and located in an existing developed area where district or city facilities are present and found by LAFCO to be sufficient for service and where the Commission determines that the change of organization or reorganization will not induce growth in the area.
 - The site is fully developed and located in an existing developed area where LAFCO finds that the public interests of health, safety, and welfare would best be served, or that clear and present health or safety hazards could be mitigated, by the proposal.
 - The site is located in an undeveloped area where disapproval would cause a loss of service to existing service users.
- ▶ **Policy 3.4.3: Planning and pre-zoning.** All territory proposed for annexation must be specifically planned and/or pre-zoned by the appropriate planning agency. The planning or pre-zoning of the territory must be consistent with the applicable General or Specific Plan and sufficiently specific to determine the likely intended use of the property.
- ▶ **Policy 3.4.5:** Pending changes to applicable land use designations, zoning, or pre-zoning must be completed before review of the proposal.
- ▶ **Policy 3.9.1:** Every determination made by the Commission shall be consistent with the Spheres of Influence of the local agencies affected by that determination (§56375.5).
- ▶ **Policy 3.9.3:** Lands to be annexed which are within an adopted Sphere of Influence shall be physically contiguous to the boundaries of the annexing agency except under one of the following circumstances (§56119):
- Existing developed areas where LAFCO determines that interests of public health, safety, and welfare would best be served by the extension of the service, or which represent clear or present health or safety hazards that could be mitigated by the proposal and city or district facilities are present and sufficient for service.
 - Existing developed areas where city or district facilities are present and sufficient for service, and where the Commission determines that the annexation will not induce growth.
- ▶ **Policy 3.9.7:** The resulting boundary configuration shall not produce areas that are difficult to serve (§56668, §56001).
- ▶ **Policy 3.10.6:** Development of existing vacant lots for urban uses should be encouraged before any proposal is approved which would allow for or lead to the development of existing agricultural lands for nonagricultural uses. Spheres of influence should reflect consideration for existing and/or potential agricultural uses (§56668).
- ▶ **Policy 6.1.2:** An annexation shall not be approved unless the annexing agency is willing to accept the annexation.

- ▶ **Policy 6.1.4:** It is the policy of the Commission to approve changes of organization that encourage and provide planned, well ordered, efficient development patterns, that include the appropriate preservation and conservation of open space and prime agricultural lands within and around developed areas, and contribute to the orderly formation and development of local agencies based upon local circumstances and conditions (§56300, §56301).
- ▶ **Policy 6.1.5:** The Commission shall consider existing zoning and pre-zones, general plans, and other land use plans, interests and plans of unincorporated communities, SOIs and master service plans of neighboring governmental entities and recommendations and determinations from related service reviews (§56375, §56668).
- ▶ **Policy 6.1.7:** Prior to annexation to a city or special district, the petitioners shall demonstrate that the need for governmental services exists, the annexing agency is capable of providing service, that a plan for service exists, and that the annexation is the best alternative to provide service (§56700, §56668)
- ▶ **Policy 6.1.8:** LAFCO will discourage projects that shift the costs of services and infrastructure benefits received to others or other service areas.
- ▶ **Policy 6.1.9:** The proposed annexation shall be a logical and reasonable expansion to the annexing district (§56001, §56119, §56668).
- ▶ **Policy 6.2.1:** The annexation must provide for the most efficient delivery of services. The most efficient services are those provided at the lowest cost and highest service level. In the case of similar providers with the same level of service, the one that delivers the same service at the lowest cost will be considered to be most efficient.
- ▶ **Policy 6.2.2:** The annexation shall be modified, conditioned or disapproved if it permits the more efficient delivery of one or more services to the detriment of other services.
- ▶ **Policy 6.2.3:** The annexing agency must demonstrate that no parcel located within district boundaries will be deprived of its right to receive services if the annexation is approved (§56668).
- ▶ **Policy 6.2.4:** The annexing agency must demonstrate that levels of service for existing and potential customers within its service boundaries will not be lowered, or costs of service increased, if the annexation is approved (§56668). If any adverse impacts may occur, the applicant or annexing agency must provide, for LAFCO consideration, a written justification for project approval despite the negative impacts.

El Dorado County Code of Ordinances

Chapter 8.09 - Vegetation Management and Defensible Space

Chapter 8.09 of Title 8 of the County Code of Ordinances requires the removal or abatement of all hazardous vegetation and combustible material, which constitutes a fire hazard which may endanger or damage neighboring property. Section 8.09.070(F) establishes defensible space requirements for parcels in, upon, or adjoining land that is covered with flammable material.

Chapter 120.12 - Conditions and Requirements

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 park land would conform with the goals, objectives, and standards contained in the recreation element of the general plan and any applicable specific plans and the dedicated land would serve park and recreation facilities for the proposed project, in the case of this project the ratio would be required to be 5.0 acres of parks and recreation land per 1,000 residents, as stated in General Plan Policy 9.1.1.1.

The dedicated land or fees required will be conveyed or paid to the local public agency which provides park and recreation services on a community-wide level and to the area within which the proposed development will be located. The local agency accepting the land or fees shall develop the land or use the fees only for the purpose of developing new or rehabilitating existing neighborhood or community park or recreation facilities that serve the

subdivision. The amount of land to be dedicated as a condition of approval would be calculated by the proposed dwelling units, average population density of the type of dwelling unit proposed, and acres of land needed to satisfy the 5.0 acres of park area to 1,000 population ratio. The fee in lieu of land dedication required to be paid by the County Code would need to equal an amount that accounts for the required land dedicated to parkland and would be calculated by the amount of acres of land to satisfy the 5.0 acres of park area to 1,000 population ratio multiplied by the fair market value per acre of the land proposed for the subdivision. The fee in lieu shall be paid prior to approval of the final map and dedications shall be recorded concurrently with the final map.

If the subdivision plans to create private park and recreation facilities these facilities can be credited against the fee in lieu or land dedication as long as the private facilities would maintain zoning and building regulations, open space is adequately provided for in written agreement, that the private land can be used and would be restricted to park and recreation purposes, the facilities are in accordance with the recreational element of the El Dorado County General Plan, and the private facilities will be constructed as agreed upon.

El Dorado Hills Fire Department Standards

The El Dorado Hills Fire Department has adopted the following standards for fire protection:

- ▶ Automatic and Manual Gates on Fire Access Roadways (Standard #B-002),
- ▶ Emergency Apparatus Access (Standard #B-003),
- ▶ Water Supply (Standard #D-001), and
- ▶ Access During Construction (Standard #G-001).

The El Dorado Hills Fire Department collects development fees to mitigate the impact of new development on fire services and associated facility and equipment needs. This fee is currently approximately \$0.94 per square foot of single family housing (Standard #A-001).

El Dorado Union High School District 2018 Master Plan

The El Dorado Union High School District 2018 Master Plan (2018 Master Plan), adopted in April 2018, is intended to guide the district in managing, upgrading, and modernizing its school facilities for 10 years (Schoolwork's 2018). The 2018 Master Plan presents the district's 10-year enrollment history, current and projected enrollment and capacity for each of its schools, and an assessment of existing school facilities' adequacy and projected needs. The plan presents projected facility needs, makes recommendations, and outlines potential and projected district revenues and their sources.

Facility needs considered in the 2018 Master Plan fall into several categories: growth, modernization, support facilities, program needs, and building and grounds upgrades. These needs are driven by a variety of factors, including student population and facility aging. The 2018 Master Plan defines growth needs as those that arise from an increased student population associated with projected new developments that generate more students than can be accommodated in existing facilities. Modernization needs are associated with the aging of existing facilities, which state standards suggest should be modernized at 25 years of age, or 20 years for portable structures. Support facility needs refer to the ability of nonclassroom areas, such as libraries, kitchens, gymnasiums, restrooms, and site acreage, to serve the number of students at a school. Program needs are those caused by educational program changes, and building and grounds upgrades reflect activities such as improving access for people with disabilities; roof replacement; upgrades to electrical, plumbing, and heating and air conditioning systems; and fire and safety upgrades.

The 2018 Master Plan contains the following relevant strategic planning goal:

- ▶ Develop and implement Facilities Master Plan designed to maximize local and state funding sources to maintain, upgrade, and modernize facilities and technology across the District.

El Dorado Union High School District uses several sources of revenues, including two local sources—developer fees and community facilities district special taxes—to pay for its facilities. The district collects developer fees on commercial/industrial projects, senior housing projects, and residential additions consisting of more than 500 square

feet (SchoolWorks 2018). Use of these funds is limited to growth-related capital facility projects and related expenses (SchoolWorks 2018). These fees are collected one time, concurrent with County building permit issuance for such projects. In addition, the district receives 38 percent of special taxes collected in the El Dorado Schools Financing Authority Community Facilities District (CFD), which was established in the El Dorado Hills Specific Plan area in 1992 to fund capital facilities needed to accommodate new development in the El Dorado Union High School District, the Buckeye Union School District, and the Rescue Union School District. These funds are collected annually over a long period (SchoolWorks 2018).

El Dorado County Parks and Trails Master Plan

The *El Dorado County Parks and Trails Master Plan* covers County-owned recreational facilities in its plan area, consisting of the portion of western El Dorado County not within the boundaries of a local parks provider. The stated purpose of the Parks and Trails Master Plan is to “provide direction and implementation strategies to guide the acquisition, development, and operation of County-owned parks and trails in the Plan Area” (El Dorado County 2012). The Parks and Trails Master Plan incorporates the goals, objectives, and policies included in the Parks and Recreation Element of the County General Plan and supplements those with additional goals, objectives, and policies to direct the planning, operation, and maintenance of parks and trails consistent with the County’s vision. At the time of this draft EIR, the El Dorado County Parks and Trails Master Plan is being updated but has not yet been released to the public. The Parks and Trails Master Plan includes the following relevant objectives and policies:

- ▶ **Objective 1.1: Park and Trail Locations.** Park and trails facilities shall be located taking into consideration the potential to provide recreational opportunities to underserved populations and to expand the diversity of recreational experiences available to County residents.
 - **Policy 1.1.2:** Some trails should be located to provide connections to neighborhoods or public places such as schools, parks, and civic areas to encourage residents to incorporate walking and cycling as a regular activity.
 - **Policy 1.1.3:** As new parks and trails are planned, consideration should be given to locating them in places that will provide access to diverse and unique recreation experiences.
- ▶ **Objective 1.2: Public Access.** El Dorado County parks and trails will be designed and operated to provide maximum public access as feasible considering safety, sensitive natural resources, and other constraints.

El Dorado Hills Community Services District Park and Recreation Facilities Master Plan

The El Dorado Hills CSD Parks and Recreation Facilities Master Plan provides a 15-year vision for how parks, facilities, and recreation programs will be managed in the El Dorado Hills CSD service area to respond to anticipated growth and changing recreation trends (EDHCSD 2021). The plan includes the vision and priorities of residents living in the El Dorado Hills CSD service area, implementation strategies, and analysis of funding requirements. It has been a comprehensive tool since 2007 for staff and directors to guide development of high-quality parks and facilities; provide recommendations for system management; and prioritize improvements to investment in El Dorado Hills’ parks, trails, El Dorado Hills CSD facilities, and recreation programs (EDHCSD 2021). The goals of the master plan include promoting health and wellness, communicating and collaborating with CSD stakeholders, preserving and promoting education about natural areas, and developing and maintaining state-of-the-art parks, trails, and facilities.

To continue to provide recreation facilities at a capacity adequate for residents living in the El Dorado Hills CSD service area, the El Dorado Hills Community Services District Parks and Recreation Facilities Master Plan emphasizes the importance of maintaining partnerships with homeowners associations (HOAs). Partnerships, including joint use agreements, build on the capacity of the CSD’s parks and facilities to meet the needs of the current population and allow for flexibility as the community’s needs change and evolve. Still, new community recreation facilities will be needed to meet demand, including those that add variety and opportunity for a broader array of activities.

3.13.2 Environmental Setting

EL DORADO HILLS COMMUNITY SERVICES DISTRICT

The El Dorado Hills CSD was created in 1962. They provide park, recreation, and local community service to residents of the El Dorado Hills community. The El Dorado Hills CSD service area is located on the western edge of El Dorado County in the Sierra Nevada foothills, 25 miles east of Sacramento. To the north, the El Dorado Hills CSD service area is bounded by Folsom Lake and the Folsom Lake State Recreation Area.

Today, the El Dorado Hills CSD service area encompasses approximately 28 square miles (18,079 acres), is home to more than 45,000 residents, and includes the most populated community in the county (El Dorado Hills CSD 2023). Beyond the El Dorado Hills CSD's boundaries is an identified sphere of influence (SOI) that brings the total service area to 33.95 square miles (El Dorado Hills CSD 2023). The project site is in the SOI, which generally includes areas that may be considered for annexation to the El Dorado Hills CSD or may be amended from time to time by the El Dorado LAFCO (El Dorado Hills CSD 2023). El Dorado Hills and the EDHCSO SOI is home to 15 public schools, residential and commercial areas, 27 public parks, and 35 existing developed private parks and recreation facilities.

FIRE PROTECTION

The El Dorado Hills Fire Department (EDHFD) (also known as the El Dorado Hills County Water District/Fire Protection District) provides fire prevention and protection services to the entire community, including the project site, and some small areas outside the community boundary in the county. EDHFD provides fire suppression, emergency medical services, special and technical rescue, hazardous materials mitigation, fire prevention, public education, disaster preparedness, and support to many community-based programs within the nearly 78.8 square miles of response district encompassing the communities of El Dorado Hills (EDHFD 2016).

Under the direction of the fire chief, EDHFD is divided into three divisions: Office of Emergency Planning, Office of Operations, and Office of Community Risk Reduction. Prehospital emergency medical and dispatch services are provided by EDHFD in cooperation with County Service Area No. 7 and El Dorado County Regional Pre-Hospital Emergency Services Operations Authority (EDHFD 2023).

EDHFD has five stations, and Station 84 (2180 Francisco Drive) is closest to the project site, located approximately 3 miles west of the site. Station 84 houses a Type 1 engine and a Type 3 engine. Station 85, located at 1050 Wilson Boulevard, is the second closest station to the project site and serves as EDHFD's administrative headquarters. Station 85, located 5 miles southwest of the project site, houses a Type 1 engine, a Type 5 engine, a reserve medical unit, and an air unit (EDHFD 2020). The department currently has 65 firefighters and paramedics and a total of 83 personnel (including firefighters, paramedics, chief officers, fire prevention specialists, training officers, fleet maintenance personnel and administrative staff (EDHFD 2024a).

Policy 5.1.2.2 of the County General Plan identifies that the minimum level of service for fire district responses should be an 8-minute response to 80% of the population. The standard for the fire department is a 6-minute travel time 90% of the time for all emergency calls (ICF 2022). EDHFD participates in joint dispatching with other fire agencies in El Dorado County, which means the closest uncommitted unit responds to an emergency call, regardless of jurisdiction. In addition, EDHFD participates in the Master Mutual Aid System for the State of California, which provides staff and mechanical assistance throughout the state (EDHFD 2016).

LAW ENFORCEMENT

El Dorado County Sheriff's Office

The project would be served by the El Dorado County Sheriff's Office (EDCSO). EDCSO is made up of the South Lake Tahoe patrol and the West Slope patrol. The West Slope patrol contains the Placerville team that would serve the project site. There is also a substation in El Dorado Hills that is frequently staffed by volunteers and deputies and used

for focused patrol efforts to address criminal activities. EDCSO services approximately 1,763 square miles of unincorporated areas of El Dorado County, which encompasses a population of approximately 190,000 (EDCSO 2020). With a service population of approximately 153,200 in unincorporated El Dorado County and 50 deputies on the West Slope Patrol, the service ratio is approximately 3,064 residents to one deputy (EDCSO 2020). Additionally, EDCSO is responsible for maintaining and convening the Local hazard Mitigation Plan for the County (El Dorado County 2018).

Policy 5.1.2.2 of the County General Plan states that the minimum level of service for sheriff responses should be an 8-minute response to 80 percent of the population. In 2022, the EDCSO dispatch received 81,959 total calls for patrol response and answered 99 percent of the calls in 15 seconds, whereas the national average standard is to answer 90 percent of dispatch calls in 10 seconds (EDCSO 2022). In an effort to improve response times to all areas of the county, EDCSO has implemented several new programs in the past few years, such as the assignment of residential deputies. In 2017, EDCSO changed from a system of assigning deputies to geographic patrol zones to a data-driven policing model whereby crime events are analyzed in real time, and deputies are assigned to geographic areas based on data (EDCSO 2017).

EDCSO's main office is located at 300 Fair Lane in Placerville. The station closest to the project site, the El Dorado Hills Substation, is located at 4354 Town Center Drive, approximately 6.4 miles southwest of the project site.

SCHOOLS

The Rescue Union School District (RUSD) and El Dorado Union High School District (EDUHSD) provide educational services to the project site. The RUSD serves 3,520 students in seven schools. The two schools that serve the project site are Green Valley Elementary School (K–5) and Pleasant Grove Middle School (6–8) (RUSD 2023a). EDUHSD serves 6,561 students in grades 9–12 and has a capacity of 8,221 total students (SchoolWorks 2018). The project site is in the Oak Ridge High School service area. The 2018 Master Plan indicates a variety of needs districtwide, but no needs are identified at Oak Ridge High School.

The proposed project is calculated into the 2022/23 Demographics and Enrollment Projections report for EDUHSD. This report estimates that in the 2023/24 school year 284 new housing units would be added, which correlates to 26 new students to EDUHSD from development, and adds to the report that over the next six years an estimated 208 students would be added to EDUHSD while 1,702 housing units are added within the EDUHSD boundary. This creates an average student generation rate of about 0.10 students per housing unit added. The report also states that EDUHSD is expected to see a 7.78 percent decrease in enrollment. RUSD uses a student generation rate of 0.56 students per residential unit (LSA 2014).

As shown in Table 3.13-3, enrollment numbers have declined at Green Valley Elementary School, Pleasant Grove Middle School, and Oak Ridge High School and the schools have available capacity for additional students. Enrollment at Oak Ridge High School is projected to decline along with EDUHSD wide enrollment even as new development is added to the EDUHSD (SchoolWorks 2022). Oak Ridge High School projects losing approximately 370 students over the course of the next six years (SchoolsWorks 2022). RUSD and EDUHSD promise to serve students residing in the school districts. New students in the area may not be guaranteed enrollment at the school in whose service area they live in, but they will be given priority over intradistrict transfer students (RUSD 2023b; EDUHSD 2023).

Table 3.13-3 School Enrollment in the Project Area

School	Number of Students						Available Capacity?
	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	School Capacity	
Green Valley Elementary School (K-5)	403	393	522	349	347	415	Yes
Pleasant Grove Middle School (6-8)	512	484	631	480	476	631	Yes
Oak Ridge High School (9-12)	2,461	2,470	2,491	2,537	2,516	2,530	Yes

Sources: California Department of Education 2023a; SchoolWorks 2018, SchoolWorks 2022.

RECREATION

In the El Dorado Hills CSD service area, parks, trails, and other recreation facilities occupy more than 500 acres, which is double the acreage since 2007, when there was a total of 248 maintained acres (El Dorado Hills CSD 2021). The El Dorado Hills CSD manages 27 public parks (El Dorado Hills CSD 2021). The many public parks, in addition to a 1-percent growth in population in El Dorado Hills, has placed a greater demand and strain on maintenance and operations. The El Dorado Hills CSD uses a standard of 5 acres per 1,000 residents for neighborhood and community parks as a guideline for the acquisition and development of park facilities (El Dorado Hills CSD 2021: 22).

Per Policy 9.1.1.1, El Dorado County uses a standard of 1.5 acres per 1,000 residents for regional and community parks and a standard of 2 acres per 1,000 residents for neighborhood parks as guidelines for the acquisition and development of park facilities. However, in El Dorado Hills CSD, neighborhood and community parks shall maintain a ratio of 5.0 acres per 1,000 residents. El Dorado County categorizes parks, in increasing size, as neighborhood, community, and regional facilities. Neighborhood parks, which are 2–10 acres in size, are typically within walking or biking distance of the residents they serve and have amenities such as play areas, turf, and picnic areas. Community parks, generally 10–44 acres in size, are intended to serve the larger community and may include sports fields and courts, a swimming pool, and a community center, as well as the amenities found in smaller neighborhood parks. Regional parks range in size from 30 to 1,000 acres, are intended to serve a region larger than an individual community, may include all the amenities typically found in neighborhood and community parks, and may feature facilities such as amphitheaters, trails, campgrounds, and interpretive centers. The County is responsible for managing and maintaining six public recreation facilities and owns land targeted for four additional parks (El Dorado County 2012). The six facilities consist of two community parks (51-acre Henningsen Lotus Park and 21-acre Pioneer Park); one neighborhood park (3-acre Bradford Park); the El Dorado County Fairgrounds and Joe's Skate Park, located at the fairgrounds; and the 16-acre Chili Bar rafting/kayaking put-in on the South Fork of the American River. The three proposed County parks are the 26-acre Pollock Pines Community Park, a 62-acre portion of the 1,600-acre Cronan Ranch Regional Trails Park in Pilot Hill, and the 6.3-acre Railroad Park in the community of El Dorado.

Folsom Lake and the Folsom Lake State Recreation Area, which border the El Dorado Hills CSD service area and are as close as 2.6 miles from the project site, are popular recreation areas for community members. Similarly, the South Fork of the American River and access to recreational areas in the Sierra Nevada foothills and Lake Tahoe Basin are within 75 miles of the project site.

3.13.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential public service and recreation impacts was based on a review of documents pertaining to the project, including the El Dorado County General Plan, El Dorado Union High School District Master Plan, El Dorado County Parks and Trails Master Plan, and El Dorado Hills Community Services District Park and Recreation Facilities Master Plan; consultation with appropriate public service providers, such as the El Dorado Hills CSD, EDCSO, the Rescue Unified School District, the El Dorado Union High School District, and El Dorado County Recreation Facilities; and review of the project area and surroundings. Impacts on public services and recreation that would result from implementing the project were identified by comparing existing service capacity and facilities against future demand associated with project implementation.

THRESHOLDS OF SIGNIFICANCE

A public services and recreation impact would be significant if implementation of the project would:

- ▶ result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of

which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- fire protection,
 - police protection,
 - schools, and
 - 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 that might have an adverse physical effect on the environment.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.13-1: Result in Increased Demand for Fire Protection Facilities and Services

Implementation of the project would result in conversion of oak woodland and grassland into a residential neighborhood in the El Dorado Hills community and would add between 854 to 1,077 residents to the area. The location and additional population would increase the demand for fire protection and emergency services on-site. The project would be served by EDHFD and would be required to comply with County, State, and EDHFD fire protection requirements, as well as pay development fees. The project would not trigger a need for additional equipment or new fire protection facilities that would create a physical impact on the environment. Therefore, this impact would be **less than significant**.

After LAFCO annexation of the project site, the site would be served by EDHFD. Station 84, at 2180 Francisco Drive, is the fire station closest to the project site. The average response time for Station 84 is under 6 minutes 90 percent of the time for all emergency calls (ICF 2022), which is better than the minimum requirement (8-minute response time for 80 percent of the population) identified in the County General Plan Policy 5.1.2.1. The EDHFD NOP comment letter confirmed that emergency response from Station 84 would be able to reach the project site entrance on Green Valley Road in under 8 minutes (EDHFD 2024b). The response from Station 85, the second closest fire station, would be approximately 9 minutes, assuming no traffic. If fire personnel were required to use a gated EA road to access the project site, the response time would be longer. EDHFD's joint agreement with other fire agencies aids in response times throughout the county. Although the population increase associated with the project would increase the number of emergency calls, the EDHFD confirmed that the project is not expected to affect the ability of the fire department to meet the minimum required response time (EDHFD 2024b). As noted above, service of the project would be consistent with the service levels identified in General Plan Objective 5.1.2 and associated Policy 5.1.2.1 and 5.1.2.2. The project would also be consistent with evaluation of service impacts under El Dorado LAFCO Policy 3.2.16 and LAFCO Policies 3.4.1, 3.9.3, 3.9.7, and 6.2.1.

The project includes an emergency access/egress at Lima Way to serve as a secondary means of emergency access and evacuation and two emergency vehicle access road connections at Marden Drive and at East Green Springs Road (to the south) that would be stubbed to the property line for emergency vehicle use. El Dorado Irrigation District and EDHFD have stated that the off-site water distribution improvements proposed for the project would provide adequate fire flow water pressure to the project. This would be consistent with General Plan Objective 5.7.1 and associated Policy 5.7.1.1. These issues are further analyzed in Section 3.17, "Wildfire and Evacuation" and Section 3.15, "Utilities and System Services." In addition, EDHFD charges a development fee based on square footage that must be paid to EDHFD for any development within its jurisdiction (Standard #A-001). Fees are collected go to support the fire department's capacity to serve the development. The project would not trigger a need for additional equipment or new fire protection facilities that would create a physical impact on the environment.

EDHFD provides guidance to developers outlining requirements related to providing fire and emergency medical services to residential developments consistent with the El Dorado County General Plan, state fire safety regulations adopted by El Dorado County, and the California Fire Code as amended locally (EDHFD 2020). This includes the location of and specifications for fire hydrants; emergency access design, including roadway widths and turning radii; and fire flow and sprinkler requirements. The reader is referred to Section 3.17, "Wildfire and Evacuation," for the impact analysis of wildfire hazards.

For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.13-2: Result in Increased Demand for Police Protection Facilities and Services

Implementation of the project would result in the expansion of residential uses in the project area, increasing demand for law enforcement services. No reduction in law enforcement services to the project area would be expected. In addition, no additional facilities or equipment would be required by the project that would create a physical impact on the environment. This impact would be **less than significant**.

The County is served by EDCSO, which provides law enforcement services to unincorporated El Dorado County. As stated in the "Environmental Setting" above, there are 50 deputies working on the West Slope, EDCSO uses increased surveillance and targeted patrol methods to appropriately patrol the West Slope (EDCSO 2022). The increased population and development on the project site associated with implementing the project would increase demand for police protection services. However, the increase in demand is expected to be incremental and is not expected to require construction of a new station to serve the project due to the close proximity of the substation in El Dorado Hills 6.5 miles from the project (EDCSO 2022). The gated EA in the project area would be able to be used by EDCSO in the event of emergency evacuations or other security needs. This would ensure no conflicts with service provision levels identified in General Plan Objective 5.1.2 and associated Policy 5.1.2.1 and 5.1.2.2. Emergency evacuation is further addressed in Section 3.17, "Wildfire and Evacuation."

Funding considerations associated with future increased police protection staffing would be addressed by the County Board of Supervisors and general funding unrelated to the proposed project. Additionally, in compliance with El Dorado County General Plan Objective 5.7.3 and associated Policy 5.7.3.1, law enforcement would be able to review the project application and provide comments. The El Dorado County Sheriff submitted a Notice of Preparation Letter on March 21, 2024 and identified no issues or facilities needed to service the project (EDSCO 2024). Implementation of the project would likely not require the construction of a new police station, construction of which could cause a physical impact on the environment. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.13-3: Result in Increased Demand for Public School Facilities and Services

Implementation of the project would result in 379 residential lots, which using the generation rates provided from the school districts, may lead to an increase of up to 38 students to EDUHSD and 212 students at RUSD. The project would not include any new school facilities or services but would introduce additional students to existing schools in EDUHSD and RUSD. EDUHSD and RUSD have capacity to increase student enrollment, even accounting for future development in El Dorado County. In addition, the project would be required to pay school impact fees to assist the school districts with meeting the increased demand for school services. Government Code Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed under Section 17620 of the Education Code is deemed to be full and complete mitigation of the impact for the planning, use, development, or provision of adequate school facilities. This impact would be **less than significant**.

The project site is in the RUSD and EDUHSD, which provide education services to the students in the area. The project proposes 379 residential lots within the school districts' boundaries and would add between 854 to 1,077 residents to the project area due to the consideration of the proposed age restricted lots (214) that are expected to generate fewer residents per residential unit. Taking into account the average student generation rate of 0.10 students to residential units that was provided in the 2022/23 Demographics and Enrollment Projections from EDUHSD and RUSD's student generation rate of 0.56 per residential unit, there would be up to 38 students added to EDUHSD and 212 students added to RUSD from the proposed project, generating a total of 250 students to El Dorado County.

As described above in Section 3.13.2, "Environmental Setting," the RUSD contains five elementary schools and two middle schools, and the EDUHSD has four high schools. The project area lies within Green Valley Elementary School, Pleasant Grove Middle School, and Oak Ridge High School service boundaries (RUSD 2023a; SchoolWorks 2018). Enrollment in Rescue Union Elementary District and El Dorado Union High District has declined over the last 5 years and is projected to continue to decline (California Department of Education 2023b, SchoolWorks 2022). As described above in the "Environmental Setting" section and in Table 3.13-3, both districts have capacity to be able to serve the population associated with the project. Oak Ridge High School is below enrollment capacity and EDUHSD has stated that the district would serve students who live in the area, adding if enrollment capacity is reached at individual high schools the students may be placed in schools outside the school service area they reside in, and priority would be given to students who live in the school service area (EDUHSD 2023). Green Valley Elementary School and Pleasant Grove Middle School have seen a decrease in annual enrollment as well (California Department of Education 2023a). Similar to EDUHSD, RUSD does not guarantee that school-aged residents from the project site would be assigned to the school whose boundary they reside in but would assign students to a school that has capacity in the district if needed (RUSD 2023b).

The RUSD schools currently have the capacity to increase their student enrollments and serve the project. Oak Ridge High School also has the capacity to serve the students associated with the project. Additionally, EDUHSD and RUSD would still be able to accommodate future students. Therefore, no school facilities would need to be built to accommodate the students generated by the project.

In addition, the project applicant would be required to pay school impact fees to assist the school districts with meeting the increased demand for school services. Government Code Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed under Section 17620 of the Education Code is deemed to be full and complete mitigation of the impact for the planning, use, development, or provision of adequate school facilities. Thus, the project would be consistent with General Plan Objective 5.1.2 and associated Policy 5.1.2.1 and 5.1.2.2, and Objective 5.8.1 and associated Policy 5.8.1.1. For these reasons, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.13-4: Result in Increased Demand for Park Facilities and Services

Implementation of the project would result in between 854 to 1,077 residents in the project area who would use parks and recreational facilities. The El Dorado County General Plan and County Code of Ordinances Chapter 120.12 require 5.0 acres of parks and recreation facilities per 1,000 residents for new residential development projects through land dedication and/or fees in lieu of land dedication for new development projects in El Dorado Hills CSD. The project design includes a 4.0-acre park and community clubhouse that would provide a variety of recreational resources and would be required to pay park dedication fees. This impact would be **less than significant**.

Lot A on the project site is proposed to be a 4-acre park along A-Drive (outside of the gated portion of the project) near Green Valley Road and dedicated to the El Dorado Hills CSD. The design of the park site would be determined by the El Dorado Hills CSD but may include a baseball diamond, tot lot, parking lot, and restroom. The clubhouse site, Lot B, would be owned and maintained by the homeowners association and may include a community building, a pool, barbeque facilities, bocci courts, and a pickle ball court. Funding and maintenance for the clubhouse would be

provided by the homeowners association, while the 4.0-acre park site would be constructed and maintained by the El Dorado Hills CSD upon annexation to the CSD and subsequent acceptance of the proposed park site. In addition to the Lot A park, open space, pedestrian trails, and landscaped lots would be incorporated into the project site.

The El Dorado Hills CSD and the El Dorado County General Plan uses a standard of 5 acres per 1,000 residents to assess adequacy of park access to residents. The project would create 379 residential lots and between 854 to 1,077 residents. This population range is due to the consideration of the proposed age restricted lots (214) that are expected to generate fewer residents per residential unit. Using the higher range of the project population, the project could require up to 5.385 acres of adequate park access to be in compliance with local regulations. In-lieu fees would be required to cover the 0.385 remaining acres for the project to remain in compliance with local regulations. While the project would increase the amount of parks acreage available to El Dorado Hills CSD patrons, the project would also be required to pay fees in lieu according to El Dorado County Code of Ordinances Chapter 120.12 Conditions and Requirement for parks development to meet park dedication requirements consistent with General Plan Objective 9.1.1 and associated Policy 9.1.1.1 and Objective 9.2.2 and associated Policy 9.2.2.2. The project would also be consistent with evaluation of service impacts under El Dorado LAFCO Policy 3.2.16 and LAFCO Policies 3.4.1, 3.9.3, 3.9.7, and 6.2.1. Project funding for El Dorado Hills CSD park maintenance and recreation services would be provided through property taxes associated with CSD landscape and lighting

Environmental impacts from construction of the park and clubhouse and the reduction in open space from the project are addressed in the various technical sections of this EIR. The impact related to park and recreation facilities would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.14 TRANSPORTATION

This section describes the applicable federal, state, and local transportation regulations and policies; discusses the existing roadway network and transportation facilities in the project area; and analyzes the potential impacts from implementation of the project on transportation. Mitigation measures that would reduce impacts, where applicable, are also discussed. The analysis in this section is based on the analysis and findings of the Vehicle Miles Traveled Memorandum (VMT Memo) (Kimley-Horn 2023) and Transportation Impact Study prepared for the project (Kimley-Horn 2022). These studies evaluate the effects of the project based on County significance thresholds contained in El Dorado County's Transportation Impact Study Guidelines (El Dorado County 2014). The VMT Memo is included as Appendix I of this EIR and incorporated herein.

Pursuant to Senate Bill (SB) 743, CEQA Section 21099, and State CEQA Guidelines Section 15064.3(a), generally, a project's effect on automobile delay is no longer considered when identifying impacts under CEQA. Instead, VMT has been identified as the most appropriate measure of transportation impacts. Therefore, the transportation analysis herein evaluates impacts using VMT and does not include a level of service (LOS) analysis.

Comments received on the Notice of Preparation (NOP) regarding transportation included concerns regarding vehicular access and circulation to/from the project site, emergency access, adequate pedestrian facilities, adequate transportation infrastructure to support the project, and safety for all modes of transportation as well as along the Highway 50 corridor. Because a project's effects on automobile delay no longer constitute a significant impact under CEQA, comments related to automobile delay (e.g., LOS, congestion) are not addressed in this EIR. All other comments are addressed in the analysis below. The NOP and comments submitted in response to it are included in Appendix A.

3.14.1 Regulatory Setting

FEDERAL

Federal Highway Administration

The Federal Highway Administration (FHWA), an agency of the US Department of Transportation, provides stewardship over the construction and preservation of the nation's highways, bridges, and tunnels. FHWA also conducts research and provides technical assistance to state and local agencies to improve safety, mobility, and livability and to encourage innovation in these areas. FHWA also provides regulation and guidance related to work zone safety, mobility, and temporary traffic control device implementation.

STATE

California Department of Transportation

The California Department of Transportation (Caltrans) is the state agency responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as the segments of the Interstate Highway System that are located in California. Caltrans District 3 is responsible for the operation and maintenance of US 50, which is located south of the project site.

California Manual on Uniform Traffic Control Devices, Part 6: Temporary Traffic Control

The California Manual on Uniform Traffic Control Devices, Part 6: Temporary Traffic Control provides principles and guidance regarding the movement of all roadway users (e.g., motorists, bicyclists, pedestrians) through or around temporary traffic control zones while reasonably protecting road users, workers, responders to traffic incidents, and equipment. Additionally, this document notes that temporary traffic control plans and devices shall be the responsibility of the authority of a public body or official having jurisdiction for guiding road users.

Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance

The purpose of the Interim Local Development Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance is to provide instructions to Caltrans personnel, lead agencies, developers, and consultants conducting safety reviews for proposed land use projects and plans affecting the State Highway System. The LDIGR guidance establishes the safety impact review expectations for Caltrans and lead agencies when complying with CEQA; however, it does not establish thresholds of significance for determining safety impacts (Caltrans 2020). The LDIGR guidance can also be used by lead agencies, developers, and consultants as a model for analyzing the safety impacts of proposed land use projects and plans on local roadways. The LDIGR guidance prioritizes vulnerable users and communities; enhances safety for pedestrians, bicycle, transit, and vehicular modes; and applies both reactive and systemic perspectives.

California Fire Code

The 2022 California Fire Code, which is codified as Part 9 of the Title 24 of the CCR, incorporates by adoption the 2021 International Fire Code and contains regulations related to construction, maintenance, access, and use of buildings. Topics addressed in the California Fire Code include design standards for fire apparatus access (e.g., turning radii, minimum widths), standards for emergency access during construction, provisions intended to protect and assist fire responders, and several other general and specialized fire safety requirements for new and existing buildings and the surrounding premises. The California Fire Code contains specialized technical regulations related to fire and life safety. The California Building Standards Code, including the California Fire Code, is revised and published every 3 years by the California Building Standards Commission.

Senate Bill 743

SB 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new State CEQA Guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." In December 2018, OPR published the most recent version of the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory), which provides guidance for VMT analysis (OPR 2018). The Office of Administrative Law approved the updated State CEQA Guidelines and, as of July 1, 2020, implementation of CCR Section 15064.3 of the updated State CEQA Guidelines applies statewide.

REGIONAL

Sacramento Area Council of Governments

The Sacramento Area Council of Governments (SACOG) is an association that includes the Counties of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba. As the federally designated metropolitan transportation organization for the region, SACOG is required to prepare a long-range transportation plan for all modes of transportation, including public transit, automobile, bicycle, and pedestrians, every 4 years. In addition to preparing the region's long-range transportation plan, SACOG assists in planning for transit, bicycle networks, clean air, and airport land uses.

Metropolitan Transportation Plan/Sustainable Communities Strategy

SACOG is responsible for preparing and updating the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the corresponding Metropolitan Transportation Improvement Program (MTIP) for the six-county Sacramento region. The purpose of the MTP/SCS is to establish regional access and identify mobility goals; identify present and future transportation needs, deficiencies, and constraints in the transportation system; analyze potential solutions; estimate available funding; and propose investments (SACOG 2019). On November 18, 2019, the SACOG Board of Directors adopted the 2020 update to the MTP/SCS. The next update to the MTP/SCS is scheduled for 2025.

The Congestion Management Process (CMP) and MTP/SCS are developed as a single integrated document. As part of the MTP/SCS, SACOG's CMP addresses the six-county Sacramento region and the transportation network therein.

The CMP focuses on travel corridors with significant congestion and critical access and mobility needs to identify projects and strategies that meet CMP objectives. Transportation projects are nominated by local agencies and analyzed against community priorities through public outreach, as well as technical performance and financial constraints.

Metropolitan Transportation Improvement Program

SACOG prepares and adopts the MTIP approximately every 2 years. The MTIP is a short-term listing of surface transportation projects that receive federal funds, are subject to a federally required action, or are regionally significant. SACOG adopted the 2023–2026 MTIP in September 2022. The 2023–2026 MTIP covers 4 years of programming: federal fiscal years 2023–2026. The project listing in the MTIP provides a detailed description for each individual project in the 2023–2026 MTIP, including those in El Dorado County.

Regional Bicycle, Pedestrian, and Trails Master Plan

SACOG approved the Regional Bicycle, Pedestrian, and Trails Master Plan in April 2015. The plan envisions a complete transportation system that supports healthy living and active communities where bicycling and walking are viable and popular choices in a comprehensive, safe, and convenient network (SACOG 2015). The *Regional Bicycle, Pedestrian, and Trails Master Plan* is intended to guide the long-term decisions for the Bicycle and Pedestrian Funding Program. The projects included in the plan are regionally significant projects that require at least partial regional funding. This plan is not fiscally constrained, so it contains at least 20 years' worth of projects.

Sacramento Region Trail Network Action Plan

SACOG approved the Sacramento Region Trail Network Action Plan in August 2022 (SACOG 2022). The plan establishes a vision for walking, biking, and rolling throughout the region by planning for a network of trails that reaches key destinations and closes existing gaps. The *Sacramento Region Trail Network Action Plan* establishes the baseline environment, identifies a proposed network of facilities, and sets forth goals for the trail network.

El Dorado County Transportation Commission

The El Dorado County Transportation Commission (EDCTC), the designated regional transportation planning agency for El Dorado County, serves as the planning and programming authority for transportation projects on the western slope of El Dorado County, excluding the areas within the Tahoe Regional Planning Agency boundaries. As the designated regional transportation planning agency, EDCTC prepares the regional transportation plan (RTP) and improvement program for the western slope of El Dorado County every 5 years (EDCTC 2023).

El Dorado County 2040 Regional Transportation Plan

The EDCTC is the regional transportation planning agency for most of El Dorado County, excluding a portion of the county located in the Tahoe Regional Planning Area. State law requires the EDCTC to adopt and submit an approved RTP to the California Transportation Commission every 5 years. The purpose of the RTP is to identify regional short-term and long-range transportation needs and to establish policies, programs, and projects designed to meet those needs. Adopted in November 2020, the El Dorado County 2020–2040 RTP is a guide for the systematic development of a balanced, comprehensive, and multimodal transportation system in the county. The RTP analyzes existing conditions, establishes regional goals, and proposes investments for both short-term (up to 10 years) and long-term (10–20 year) periods (EDCTC 2020a).

LOCAL

El Dorado County General Plan

The El Dorado County General Plan was adopted in July 2004. The Transportation and Circulation Element (amended in 2019) of the General Plan provides the framework for County decisions concerning the countywide transportation system, which includes various transportation modes and related facilities. The Transportation and Circulation Element establishes standards that guide development of the transportation system, including access to the road and highway system required by new development (El Dorado County 2019). Transportation and Circulation Element

policies provided below are applicable to the project. The project’s Transportation Impact Study addresses project consistency and required transportation improvements for Transportation and Circulation Element policies related to transportation operations. Based on the results of the Transportation Impact Study, the project is proposing the traffic signal operational improvements to El Dorado Hills Boulevard/Latrobe Road from White Rock Road to Saratoga Way and Silva Valley Parkway and Harvard Way intersection as identified in Chapter 2, “Project Description,” to address queuing and operation issues consistent with General Plan Policies TC-Xa, TC-Xd, TC-Xe, and TC-Xf, and TC-Xg.

- ▶ **Policy TC-1a:** The County shall plan and construct County-maintained roads as set forth in Table TC-1 [shown as Table 3.14-1 in this EIR]. Road design standards for County-maintained roads shall be based on the American Association of State Highway and Transportation Officials (AASHTO) standards, and supplemented by Caltrans design standards and by County Department of Transportation standards. County standards include typical cross sections by road classification, consistent with right-of-way widths summarized in Table TC-1 [Table 3.14-1].

[Table 3.14-1] General Plan Table TC-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.
- ▶ **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 [shown as Table 3.14-1 in this EIR].
 - ▶ **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-3a:** The County shall support all standards and regulations adopted by the El Dorado County Air Quality Management District governing transportation control measures and applicable state and federal standards.

- ▶ **Policy TC-4a:** The County shall implement a system of recreational, commuter, and inter-community bicycle routes in accordance with the County's Bicycle Transportation Plan. The plan should designate bikeways connecting residential areas to retail, entertainment, and employment centers and near major traffic generators such as recreational areas, parks of regional significance, schools, and other major public facilities, and along recreational routes.
- ▶ **Policy TC-4b:** The County shall construct and maintain bikeways in a manner that minimizes conflicts between bicyclists and motorists.
- ▶ **Policy TC-4c:** The County shall give priority to bikeways that will serve population centers and destinations of greatest demand and to bikeways that close gaps in the existing bikeway system.
- ▶ **Policy TC-4d:** The County shall develop and maintain a program to construction bikeways, in conjunction with road projects, consistent with the County's Bicycle Transportation Plan, taking into account available funding for construction and maintenance.
- ▶ **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-4f:** The County shall sign and stripe Class II bicycle routes, in accordance with the County's Bicycle Transportation Plan, on roads shown in Figure TC-1, when road width, safety, and operational conditions permit safe bicycle operation.
- ▶ **Policy TC-4g:** The County shall support development of facilities that help link bicycling with other modes of transportation.
- ▶ **Policy TC-4h:** Where hiking and equestrian trails abut public roads, they should be separated from the travel lanes whenever possible by curbs and barriers (such as fences or rails), landscape buffering, and spatial distance. Existing public corridors such as power transmission line easements, railroad rights-of-way, irrigation district easements, and roads should be put to multiple use for trails, where possible.
- ▶ **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.
- ▶ **Policy TC-5a:** Sidewalks and curbs shall be required throughout residential subdivisions, including land divisions created through the parcel map process, where any residential lot or parcel size is 10,000 square feet or less.
- ▶ **Policy TC-5c:** Roads adjacent to schools or parks shall have curbs and sidewalks.
- ▶ **Policy TC-8b:** The County shall review the EDCTC's RTP and SACOG's Metropolitan Transportation Plan, including the Sustainable Communities Strategy each time it reviews and updates the General Plan and any master plan, strategy, and zoning, to ensure overall consistency among all of these plans and strategies to allow for CEQA streamlining and to ensure eligibility for State transportation and housing funding.
- ▶ **Policy TC-9a:** Incorporate circulation concepts that accommodate all users in new developments as appropriate.

Transportation Impact Study Guidelines

The El Dorado County Community Development Agency adopted the Transportation Impact Study Guidelines in November 2014. The guidelines ensure that the impacts of proposed development projects are addressed in a manner consistent with the policies established in the General Plan Transportation and Circulation Element (El Dorado County 2014). As detailed above, a project's effect on automobile delay is no longer a consideration when identifying a significant impact under CEQA; thus, the portions of the guidelines not directly applicable to CEQA are not included herein.

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. Resolution 141-2020 provides: "The County shall apply the significant threshold of 15 percent, as

recommended by OPR's Technical Advisory, below baseline for residential and office land use and no net increase for retail projects. Consistent with OPR's Technical Advisory, the Board of Supervisors finds that a proposed project exceeding a level of 15 percent below the existing VMT per capita 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 and further reduced to 100 to remain consistent with the existing threshold in General Plan Policy TC-Xe;
- ▶ projects that are within one-half 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 conclusions in its Technical Advisory); and
- ▶ 100-percent affordable residential development, including moderate, low, and very low categories as defined in the Regional Housing Needs Assessment, consistent with OPR's conclusions in its Technical Advisory.

El Dorado County Transit Authority Plan

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 projects that the agency will work on over the next 25 years. The short-range element provides a detailed, 5-year plan that focuses on concrete implementable steps toward the long-range vision for public transit services. The long-range element focuses on long-range strategies for public transportation in western El Dorado County over the next 25 years (EDCTC 2019).

El Dorado County Parks and Trails Master Plan

The El Dorado County Parks and Trails Master Plan provides direction and implementation of strategies to guide the development and operation of County-owned parks and trails (El Dorado County 2012). 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. The following policies are relevant to the project:

- ▶ **Policy 1.1.2:** Some trails should be located to provide connections to neighborhoods or public spaces such as schools, parks, and civic areas to encourage residents to incorporate walking and cycling as a regular activity.
- ▶ **Policy 1.2.2:** Parks and trails should be open at all times to make it possible for people with diverse work and school schedules to utilize them.
- ▶ **Policy 1.2.3:** Design of parks and trail[s] should take into consideration the varying age-related physical abilities and interests of El Dorado County residents and provide a variety of appropriate improvements to encourage physical activity and social engagement.
- ▶ **Policy 2.1.3:** Unique features or themes should be incorporated in park and trailhead design to give them an identity consistent with the local character and identity.

Active Transportation Plan

The 2020 El Dorado County Active Transportation Plan (Active Transportation Plan) is the guiding document for achieving the County's goal to 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 and strategies to ensure that implementation of these recommendations is manageable and fundable (EDCTC 2020b). The following Active Transportation Plan policies are applicable to the project:

- ▶ **Objective 1.2:** Proactively address safety for people walking and bicycling at potential conflict locations.
- ▶ **Objective 3.1:** Provide safe and accessible connections to important community destinations.
- ▶ **Objective 3.2:** Support regional connectivity for active transportation.

- ▶ **Objective 3.3:** Maintain the active transportation network at an acceptable condition.
- ▶ **Objective 3.4:** Support multimodal connections between active transportation and transit.
- ▶ **Objective 4.1:** Identify and prioritize improvements for bicycling and walking in El Dorado County.

County Code of Ordinances

Chapter 12 of the El Dorado County Code of Ordinances includes regulations regarding county streets, sidewalks, and public spaces, including provisions regarding road encroachments for the purpose of protecting the safety of the public traveling on public roads.

County Design and Improvement Standards Manual

The County Design and Improvement Standards Manual (DISM) was adopted in May 1986 and revised in May 1990. The DISM presents standards for the design and implementation of streets that ensure a safe and accessible multimodal transportation system. The DISM also includes specific design standards (e.g., sidewalk width requirements, minimum road width) for subdivisions (El Dorado County 1990).

County Green Valley Road Corridor Analysis

The County of El Dorado retained the assistance of Kittleson & Associates, Inc. to prepare a Corridor Analysis Report for Green Valley Road in 2014 (County of El Dorado 2014). The purpose of the Corridor Analysis was to identify potential short-term improvements that may be implemented to improve operating and safety conditions for all users and modes of travel along the Green Valley Road corridor which encompasses approximately 11 miles of predominantly rural area that includes two suburban unincorporated communities: El Dorado Hills and Cameron Park. An analysis pertaining to the following topics was performed: traffic operations, speed limits, crash analysis, bicycle facilities, private driveways, Pleasant Grove Middle School, and cut-through traffic.

In the immediate vicinity of the project site, the following improvement considerations were provided (County of El Dorado 2014: Exhibit 13):

Intersection features at Green Valley Road and Malcolm Dixon Road:

- ▶ Realignment to form standard T-intersection
- ▶ Advance intersection warning signs on Green Valley Road
- ▶ Left-turn lane for eastbound traffic on Green Valley Road
- ▶ Lane markings and rumble strips on major road approach to increase visibility
- ▶ Splitter island on minor approach to improve intersection visibility and improve traffic control compliance
- ▶ Upgraded post-mounted delineators

Safety and Physical Features:

- ▶ 8-foot-wide shoulders along Green Valley Road between Malcolm Dixon Road and Deer Valley Road

El Dorado Hills County Fire Department Ordinance 2022-01

El Dorado Hills County Fire Department Ordinance 2022-01 was adopted by the County Board of Directors on October 20, 2022. The ordinance adopts the 2022 California Fire Code with exclusions and amendments to accommodate local climate, geological, and topographical conditions.

3.14.2 Environmental Setting

This section describes the existing environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated. The environmental setting for transportation includes descriptions of roadway, transit, bicycle, and pedestrian facilities.

ROADWAY SYSTEM

County roadways are classified as highways, thoroughfares, arterials, collectors, and local streets. The primary roadways in the vicinity of the project site are described as follows:

- ▶ **Green Valley Road** is an east-west arterial roadway that provides a primary connection between Folsom and Placerville. There are no pedestrian facilities on Green Valley Road between El Dorado Hills Boulevard and Deer Valley Road. There are Class II bicycle lanes along Green Valley Road between Boeing Road and Loch Way.
- ▶ **Bass Lake Road** is a north-south arterial roadway that extends from US 50 and ends at Green Valley Road. There is a sidewalk on one side of Bass Lake Road between Green Valley Road and Lambeth Road. There are no bicycle facilities present along Bass Lake Road between Green Valley Road and Silver Springs Parkway.
- ▶ **Cameron Park Drive** is a north-south arterial roadway that provides a primary connection to US 50 for western El Dorado County. There are Class II bicycle lanes along Cameron Park Drive between Green Valley Road and Oxford Road.
- ▶ **Silva Valley Parkway** is a two-lane north-south arterial roadway that runs from US 50 and ends at Green Valley Road. There are sidewalks along one side of Silva Valley Parkway between Green Valley Road and Harvard Way. Between Harvard Way and Serrano Parkway, there are sidewalks on both sides of the street. There are Class I bicycle facilities along Silva Valley Parkway between Appian Way and Harvard Way.
- ▶ **El Dorado Hills Boulevard** is a north-south arterial roadway that provides a primary connection between Green Valley Road and US 50 for western El Dorado County. There are Class I bicycle facilities along El Dorado Hill between Green Valley Road and Serrano Parkway.
- ▶ **Deer Valley Road** is a north-south collector roadway located approximately 0.3 mile east of the project site. There are no pedestrian facilities along Deer Valley Road. There is a Class III bicycle route located on Deer Valley Road north of the intersection with Green Valley Road.
- ▶ **Malcolm Dixon Road** is an east-west collector roadway located less than 0.1 mile north of the project site. There are no pedestrian facilities along Malcolm Dixon Road. There is a Class III bicycle route located along the entirety of Malcolm Dixon Road.
- ▶ **Marden Drive** is a southeast-northwest local road adjacent to the project site. There are no pedestrian or bicycle facilities present along Marden Drive.

TRANSIT SYSTEM

El Dorado Transit provides fixed-route bus, dial-a-ride, and paratransit services throughout western El Dorado County, as well as commuter routes from El Dorado County to downtown Sacramento. The bus stop nearest to the project site serves the local Route 40 bus and is located approximately 2 miles east of the project site, near the intersection of Green Valley Road and Cambridge Road. Hourly bus service is provided Monday through Friday between approximately 6:30 a.m. and 7:30 p.m. Bus Route 40 does not operate on weekends or major holidays. The El Dorado County Health and Human Services Agency also operates a door-to-door senior shuttle program in Placerville, Diamond Springs, and El Dorado Hills. This volunteer-driven transportation service assists adults 60 years and older with grocery shopping trips and trips to various locations in the community.

BICYCLE SYSTEM AND PEDESTRIAN SYSTEM

The bicycle network serving the county consists of the following bicycle facility classifications as described in the County Active Transportation Plan:

- ▶ **Class I (Shared-Use Paths):** Class I bikeways are paved shared-use paths completely separated from the street or highway.
- ▶ **Class II (Bicycle Lanes):** Class II bikeways are striped preferential bicycle lanes on the roadway for one-way bicycle travel that include pavement stencils and signs.

- ▶ **Class IIB (Buffered Bicycle Lanes):** Class IIB bikeways are bicycle lanes that include painted buffers to increase the distance between bicyclists and drivers.
- ▶ **Class III (Bicycle Routes):** Class III bikeways are signed bicycle routes where people bicycling share a travel lane with people driving.
- ▶ **Class IV (Separated Bikeways):** Class IV bikeways are on-street bicycle facilities that are physically separated from motor vehicle traffic by a vertical element or barrier, such as a curb, bollards, or a parking aisle.

As of 2020, the County bicycle system was composed of approximately 62 miles of bicycle facilities: approximately 30 miles of Class I bikeways (shared-use paths), 31 miles of Class II bikeways (bicycle lanes), and 1 mile of Class III bikeways (bicycle routes). There are Class II bikeways (bicycle lanes) along Green Valley Road between Loch Way and Silver Springs, north of the project site, and no pedestrian facilities along the undeveloped parcel frontages adjacent to the project site. The Active Transportation Plan proposes approximately 207 miles of new bicycle facilities and approximately 38 miles of new sidewalks across the county (EDCTC 2020b: 69, 58).

3.14.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following methodologies were used to evaluate potential impacts of the project.

Conflicts with County Circulation System Programs and Policies

The analysis compares consistency of project transportation operations with programs and policies set forth in the County General Plan and Active Transportation Plan that address the roadway system and vehicle trip reductions. As detailed above, a project's effect on automobile delay is no longer a consideration when identifying a significant impact under CEQA; thus, consistency with County General Plan policies related to intersection and roadway performance is not addressed here.

Bicycle and Pedestrian Analysis

The bicycle and pedestrian analyses evaluate whether implementing the project would, either directly or indirectly, disrupt existing bicycle or pedestrian programs or facilities; interfere with the implementation of a planned bicycle or pedestrian facility; or create a physical or operational transportation outcome that conflicts with applicable bicycle or pedestrian system plans, guidelines, policies, or standards.

Transit Analysis

The transit analysis evaluates whether the project would, directly or indirectly, disrupt existing transit services or facilities, interfere with the implementation of a planned transit facility, or create physical or operational transportation outcomes that conflict with desired conditions expressed in transit policies adopted by the County or El Dorado Regional Transit for their respective facilities in the unincorporated county.

Vehicle Miles Traveled Analysis

This analysis is based on the VMT Memo prepared by Kimley-Horn (Appendix I). Consistent with County Resolution 141-2020, the El Dorado County Travel Demand Model (EDC TDM) was used to determine project-generated VMT. The EDC TDM uses a base year of 2018 and includes a VMT analysis tool consistent with OPR guidelines.

Intrazonal trips are trips that begin and end within a transportation analysis zone (TAZ). Because intrazonal trips never leave the TAZ, they are never assigned to the roadway network. Therefore, an estimation process was used to determine the length of intrazonal trips that start and end within each TAZ. Using the EDC TDM midday assignment, intrazonal trip lengths were estimated by calculating half of the shortest travel distance between a given TAZ and all other TAZs. The midday 5-hour assignment period was used to calculate intrazonal travel because there is generally less traffic and less congestion during this time as compared to the a.m. or p.m. peak periods; therefore, it is most representative of average daily conditions. The trip lengths for external trips that either start or end outside the

model area were also adjusted using the California Statewide Travel Demand Model. Finally, the TAZ structure was modified slightly to move the project site from the TAZ in which it was located to its own TAZ (TAZ 630). A centroid connector was also added to load project traffic into the roadway network. No other modifications to the EDC TDM roadway network were made as part of the analysis.

The EDC TDM differentiates between household types (e.g., multifamily, single-family) but does not have a specific step to synthesize the population of these households separately, nor does it have a housing type for age-restricted units. Therefore, to represent the project most accurately, the population for the single-family residential units was synthesized in a manner consistent with the existing households in the TAZ adjacent to the project site. Additionally, the age-restricted units were added as single-family units, and the population variables were modified to best represent future population demographics. Population variables include household size, number of workers, and household income. Although no specific demographic information could be obtained for age-restricted developments, it is assumed for the purposes of this analysis that only 10 percent of the households would contain at least one worker and that the remainder of the households did not have a single worker. In addition, only 15 percent of the households were assumed to have three residents, whereas the remainder of the households were assumed to be either one- or two-person households (Kimley-Horn 2023).

VMT was then calculated using three steps. First, the travel distance between each pair of TAZs was calculated using the loaded network to model real-world conditions. This step included the previously described trip length alteration for intrazonal and external trips that either start or end outside the model area. Next, VMT between each TAZ was calculated by multiplying the number of trips between each TAZ by the distance between each TAZ, including intrazonal trips. Finally, VMT was categorized as either home-based VMT or home-based work VMT. This categorization was completed by determining the percentage of vehicle productions and attractions by trip purpose and direction (departures and returns). These percentages were applied to the total VMT estimates, to determine the VMT by trip purpose and direction. Home-based VMT summarizes VMT by the production TAZ for residential uses. To determine the residential VMT per capita generated by the project, the home-based VMT for the project TAZ (i.e., TAZ 630) was totaled and divided by the total residential population (see Appendix I for detailed VMT outputs). The threshold of significance for determining the project's direct impact is a residential VMT per capita that is 15 percent below the county residential VMT per capita. Therefore, the project would result in a significant VMT impact if the project would generate more than 19.1 VMT per capita as detailed in Table 3.14-2.

Table 3.14-2 Project-Generated VMT Threshold

Item	Amount
Total Daily Home-Based VMT (A)	3,046,839
Total County Population (B)	135,715
Total VMT per capita (A/B = C)	22.5
Total VMT per Capita Threshold (C*85% = D)	19.1

Notes: % = percent, VMT = vehicle miles traveled.

Source: Kimley-Horn 2023.

Transportation Hazards and Emergency Access Analysis

Transportation hazards and emergency access analyses evaluate whether the project would, directly or indirectly, substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access.

THRESHOLDS OF SIGNIFICANCE

The following thresholds of significance are based on Appendix G of the State CEQA Guidelines, the El Dorado County General Plan, County Resolution 141-2020, and State CEQA Guidelines Section 15064.3. A transportation-related impact would be significant if implementation of the project would:

- ▶ Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, or bicycle and pedestrian facilities;
- ▶ result in a VMT per capita greater than 19.1 (i.e., exceed 15 percent below the existing county VMT per capita), as detailed in the “Methodology” section, above;
- ▶ substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- ▶ result in inadequate emergency access.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.14-1: Conflict with a Program, Plan, Ordinance, or Policy Addressing the Circulation System, Including Transit, Roadway, Bicycle, and Pedestrian Facilities

The project includes the implementation of pedestrian facilities on the project site, as well as off-site improvements consistent with General Plan policies. Additionally, the project would be subject to, and constructed in accordance with, applicable County roadway design and safety guidelines. The project would not permanently alter the physical transportation network external to the project site such that existing and planned bicycle, pedestrian, and transit services would be adversely affected. For these reasons, the impact on transit, bicycle, and pedestrian facilities would be **less than significant**.

Transit

El Dorado Transit provides bus service throughout the western slope of El Dorado County, including in the El Dorado Hills community. It operates Bus Route 40, which has stops approximately 2 miles east of the project site. There are no existing or proposed transit facilities or services in the vicinity of the project site. Therefore, implementing the project would not adversely affect any existing or planned transit facilities or services.

Implementing the project would result in residential growth, which could generate increased demand for transit facilities and services. According to the OPR Technical Advisory, when evaluating impacts on multimodal transportation networks, the addition of new transit users generally should not be treated as an adverse impact (OPR 2018: 19). Additionally, El Dorado Transit regularly monitors transit performance by gathering information, such as on-time performance data and monthly ridership trends (El Dorado Transit 2023). El Dorado Transit uses these data to develop midyear and annual reports of performance measures by mode and route and evaluate service level changes. Therefore, any increase in demand for transit services near the project site would be assessed periodically. Furthermore, the Western El Dorado County 2019 Short- and Long-Range Transit Plan acknowledges anticipated residential growth in the El Dorado Hills community, and County General Plan Policy TC-2a states that the County shall work with transit providers to provide transit services that are responsive to existing and future transit demand. For these reasons, any increase in demand for transit services generated by the project site would be evaluated and accommodated through existing strategies. Additionally, as detailed in the “Environmental Setting” section, above, the El Dorado County Health and Human Services Agency operates a door-to-door senior shuttle program in Placerville, Diamond Springs, and El Dorado Hills to serve residents living in the project’s age-restricted units. Therefore, the project would not conflict with a program, plan, ordinance, or policy related to transit.

Bicycle and Pedestrian Facilities

The project would involve the construction of residential streets with sidewalks and a pedestrian trail that would connect the park site to a trail along the eastern side of C-Drive. The proposed internal roadway design would enhance pedestrian access to and through the project site, in accordance with General Plan Policy TC-1p and Policy TC-9a, which encourage new developments to include street designs that accommodate all users and provide safe connections for pedestrians. Additionally, the project would include sidewalks along all streets, consistent with General Plan Policies TC-5a and TC-5c, which require curbs and sidewalks throughout residential subdivisions and on roads adjacent to parks.

As detailed in the "Environmental Setting" section, above, consistent with the El Dorado County Active Transportation Plan, Class II bikeways (bicycle lanes) currently exist along Green Valley Road adjacent to the northeast frontage of the project site. Additionally, there are Class II bikeways (bicycle lanes) along the northern westbound lane of Saratoga Way and pedestrian facilities at the Silva Valley Parkway/Harvard Way intersection. There are no planned bicycle facilities within approximately 1.25 miles of the project site. Therefore, the project would not conflict with any planned or programmed bicycle facility improvements in the vicinity of the project site.

Summary

The project would include the implementation of pedestrian facilities consistent with the General Plan. Additionally, the project would not adversely affect any existing or planned bicycle, pedestrian, or transit services or facilities in the vicinity of the project site. Therefore, the project would not conflict with a program, plan, ordinance or policy addressing the circulation system. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.14-2: Conflict or Be Inconsistent with CEQA Guidelines Section 15064.3(b) Regarding Vehicle Miles Traveled

Construction activities would be temporary and intermittent and thus would not result in long-term increases in vehicular trips. The average number of construction trips generated would be 60 per day and therefore would satisfy the screening threshold for small projects as established by the OPR Technical Advisory and adopted by reference in County Resolution 141-2020. The VMT Memo determined that implementation of the project would result in a residential VMT per capita of 19.6. Therefore, implementation of the project would exceed the significance threshold of 19.1 VMT per capita for residential uses (i.e., 15 percent below the existing county VMT per capita) as identified in County Resolution 141-2020. For this reason, the project would conflict with State CEQA Guidelines Section 15064.3. This impact would be **significant**.

Construction

Project construction activities would be temporary and intermittent beginning in April 2025 and occurring over 5 years and thus would not result in long-term increases in vehicular trips. Additionally, construction worker trips are not newly generated; instead, they are redistributed throughout the regional roadway network based on the different work sites to which workers travel. Therefore, construction workers would not generate new trips each day; they would only redistribute them. Therefore, the project would satisfy the screening threshold for small projects as detailed in the OPR Technical Advisory (i.e., construction activity would generate fewer than 110 new daily trips). For these reasons, construction activities are not expected to substantially increase VMT in the region.

Operations

As discussed in the "Methodology" section, above, the threshold of significance for residential land use development is a total VMT per capita that is 15 percent below the existing county average VMT per capita. As shown in Table 3.14-2, the existing average VMT per capita for the county is 22.5. Therefore, the project would result in a significant VMT impact if project-generated VMT results in more than 19.1 VMT per capita. Table 3.14-3 presents estimated project-generated VMT. See Appendix I for details regarding the VMT analysis.

As detailed in Table 3.14-3, the project is anticipated to generate 19.6 VMT per capita. Thus, the project would exceed the county VMT per capita threshold of 19.1. Therefore, the project's VMT impact during operations would be significant.

Table 3.14-3 Total Project-Generated VMT Forecasts

Scenario	VMT per Capita
County Average (2018)	22.5
Threshold (15% below 2018 County Average VMT per Capita)	19.1
Existing Plus Project	19.6
VMT per Capita as a % of threshold	103%

Notes: % = percent, VMT = vehicle miles traveled.

Source: Kimley-Horn 2023.

Summary

Project construction would require varying numbers of construction personnel depending on the phase. The average number of construction workers would be 30, resulting in an estimated average number of construction worker trips of 60 per day throughout construction of the project. Thus, the project is not anticipated to result in a substantial increase in VMT during construction. The VMT analysis calculated that the project would generate 19.6 VMT per capita, which is above the county's VMT threshold of 19.1 VMT per capita for residential projects (i.e., 85 percent below existing regional VMT per capita). Therefore, the impact from operational VMT would be **significant**.

Mitigation Measures

Mitigation Measure 3.14-2: Implement a Transportation Demand Management Program

Before issuance of the first building permit in the first phase of development, the applicant shall develop a Transportation Demand Management (TDM) program for the project and shall submit the TDM program to El Dorado County for review and approval. The TDM program must be designed to achieve a 3-percent reduction in daily vehicle miles traveled generated by the proposed residential uses.

The project's homeowners association (HOA) shall be responsible for implementing the TDM program and included in the covenants, conditions, and restrictions (CC&Rs). The HOA shall be responsible for funding and overseeing the delivery of trip reduction/TDM proposed programs and strategies to achieve the trip reduction objective, which may include, but shall not be limited to, the following strategies:

- ▶ School Pool Programs: Organize a program that matches families in carpools for school pick-up and drop-off;
- ▶ Subsidized Transit Program: Provide either partially or fully subsidized transit passes for all residents who request them and shall publicize the availability of transit passes to residents in periodic communications; and
- ▶ Voluntary Travel Behavior Change Program: The HOA shall provide educational materials (e.g., brochure) to new homebuyers that target individual attitudes towards travel and provide tools for individuals to analyze and alter their travel behavior.

The HOA shall submit an annual status report on the TDM program to El Dorado County beginning 1 year after the issuance of any certificate of occupancy and continuing until full project buildout. Data shall be collected in October of each year and submitted by December 31 of each year. The report shall be prepared in the form and format designated by the County, which must either approve or disapprove the program within 90 days. The HOA shall conduct household travel surveys to determine TDM program participation, estimated mode shares, and trip reduction levels. The survey instrument and monitoring plan shall be reviewed and approved by the County before implementation. The HOA shall also develop and implement a program to monitor daily traffic volumes entering and exiting project site, to be conducted annually and which shall take into account ongoing construction traffic, as appropriate, through coordination with on-site construction contractors.

Significance after Mitigation

Because participation in the TDM program is not guaranteed, the effectiveness of VMT reduction strategies and the extent to which VMT would be reduced is not certain. Therefore, even with the implementation of Mitigation Measure

3.14-2, the project may not achieve the overall VMT threshold reduction necessary of 3 percent. Thus, the impact on VMT is **significant and unavoidable**.

Impact 3.14-3: Substantially Increase Hazards Due to a Geometric Design Feature (e.g., Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farm Equipment)

The project would involve the construction of a new residential subdivision in the El Dorado Hills community with 379 residential lots, 214 of which would be age restricted. The project would be subject to, and constructed in accordance with, applicable roadway design and safety guidelines. However, because the project could increase transportation hazards during construction and operations, this impact would be **potentially significant**.

Construction

The effects of project construction as they relate to transportation safety hazards would be temporary. As detailed in Chapter 2, "Project Description," construction activities are expected to commence in April 2025 and be completed in approximately 5 years (i.e., 2025–2030). The project would include the construction of two new access roadway connections to Green Valley Road (i.e., C-Drive and A-Drive) and three emergency access connections (see Figure 2-6). Additionally, the project proposes off-site utility improvements involving water distribution, water conveyance, and electrical service improvements (as well as an alternative alignment for wastewater improvements), as described in Chapter 2, "Project Description." Therefore, project construction would have the potential to increase hazards related to the movement of heavy vehicles and construction materials, which could result in conflicts for vehicles and alternative modes of transportation navigating the project area. Additionally, although these off-site improvements would not result in physical changes to the roadway configuration, if the road is not properly surfaced after required trenching is completed to implement these modifications, the off-site improvements could result in increased safety risks for people biking (i.e., uneven paving).

The project would be required to meet all County requirements related to construction activities, including provisions set forth in Section 12.08 of the County Code. Per County Code Section 12.08.080, an encroachment permit from the County would be required for any work that would occur within County right-of-way and for the use of an oversized or overloaded vehicle on the County roadway network. Additionally, in accordance with Section 10 of the County DISM, all encroachments onto County-maintained roads associated with subdivision development would be required to adhere to applicable standards in the County Code, as well as those included in the DISM (El Dorado County 1990). However, although the County requires an encroachment permit for any work performed in the County right-of-way, the permit application does not require the preparation of a traffic control plan. Therefore, transportation hazards along affected roadways could be substantially increased if proper precautions are not met in the handling of construction equipment and the circulation of heavy vehicles as well as if the disturbed pavement is not restored to its original condition.

Operations

The project would consist of a "loop" roadway system, and access to the project site would be provided by two new roadway connections to Green Valley Road, C-Drive and A-Drive, as shown in Figure 2-6. The A-Drive/Green Valley Road intersection would be signalized and both access roads would provide left- and right-turn pockets to promote safe traffic flow. All roadway and facility improvements would be subject to and constructed in accordance with applicable County and industry standard roadway design and safety guidelines.

The project would also comply with County General Plan policies, including Policy TC-1p, Policy TC-4b, Policy TC-4h, and Policy TC-9a which minimize the opportunity for conflicts between vehicles and alternative modes of transportation through design. All intersections and driveways along existing and proposed roadways would be required to provide adequate sight distance in accordance with Section 3(B) of the County DISM (El Dorado County 1990: 23). Additionally, the Transportation Impact Study found that the driveways would comply with the guidelines presented in the Geometric Design of Highways and Streets, published by the American Association of State Highway and Transportation Officials (AASHTO), and the Highway Design Manual, published by Caltrans. It was determined that proposed access to the site, along Green Valley Road between Malcolm Dixon Road and Deer Valley Road,

would be sufficient to serve delivery trucks, fire trucks, and other oversized vehicles (Kimley-Horn 2022:52). Furthermore, the project would be subject to County review processes, which would ensure that the project design, including off-site improvements and the alternative alignment for wastewater improvements, would comply with all applicable design standards related to transportation safety.

The peak-hour traffic signal warrant evaluation for the un-signalized study intersections, performed consistent with California Manual on Uniform Traffic Control Devices methodologies, determined that the peak-hour signal warrant is satisfied under various analysis scenarios at the intersections of Green Valley Drive/Deer Valley Road, El Dorado Hills Boulevard/Francisco Drive, and Silva Valley Parkway/Tong Road. In all analysis scenarios where a signal is warranted for the plus project condition, a signal is also warranted in the no project condition. While a signal is warranted at El Dorado Hills Boulevard/Francisco Drive, it is shown to operate acceptably under all analysis scenarios (Kimley-Horn 2022: 46). Additionally, an intersection queuing evaluation was conducted to evaluate the capacity of the existing turn lanes at the study intersections using Synchro and SimTraffic reports. The intersection queuing evaluation determined that the addition of the project would result in the following (Kimley-Horn 2022: 47):

- ▶ The westbound left-turn queue at Green Valley Road/El Dorado Hills Boulevard/Salmon Falls Road currently exceeds the available storage capacity during the AM peak-hour under all analysis scenarios for both No Project and Plus Project conditions. The westbound left movement also exceeds storage capacity during the PM peak-hour under the Cumulative No Project scenario and all analysis scenarios for Plus Project conditions. The project adds approximately one car length to the queue under all analysis scenarios. It is anticipated that available storage length will be increased with the widening of Green Valley Road at this intersection as part of the County's long-range capital improvement program (CIP).
- ▶ The northbound left-turn queue at Green Valley Road/Cambridge Road currently exceeds the available storage capacity during the AM peak-hour under all analysis scenarios for both No Project and Plus Project conditions. The project adds a minimal amount to the queue under all AM peak-hour analysis scenarios.
- ▶ The eastbound left-turn queue at Silva Valley Parkway/Harvard Way will exceed the available storage capacity during the AM peak-hour under both Existing and Cumulative Plus Project conditions. The eastbound left movement also exceeds storage capacity during the PM peak-hour under Cumulative Plus Project conditions. The project adds a minimal amount to the queue under all AM peak-hour analysis scenarios and a moderate amount under all PM peak-hour analysis scenarios.

According to the County's 2018 Annual Accident Location Study, several study area sites (i.e., intersections and roadway segments) experienced three or more collisions during a three-year period between January 1, 2016, and December 31, 2018. According to the 2018 Study, seven sites "do not require further review at this time. However, these sites will continue to be monitored and any subsequent increase in the frequency of accidents may necessitate further review and analysis." One site has a pending improvement and it is anticipated that, "upon completion, [this] improvement will substantially reduce the number of accidents." Table 3.14-4 shows the project area sites selected for investigation and their corresponding collision rate.

The Transportation Impact Study also included a US 50 Safety Evaluation, as required by Caltrans, to review existing US 50 deficiencies (i.e., geometric features, crash rates), as well as the project's potential effects to substantially increase exposure or hazards. Using data obtained from UC Berkeley Safe Transportation Research and Education Center (SafeTREC) Transportation Injury Mapping System (TIMS) between January 2014 and December 2019, and in a manner consistent with Caltrans' LDIGR Safety Review Practitioners Guidance, the safety evaluation was completed for the following freeway study facilities:

- ▶ US 50 mainline, west of El Dorado Hills Boulevard/Latrobe Road.
- ▶ US 50 mainline, between El Dorado Hills Boulevard/Latrobe Road and Silva Valley Parkway.
- ▶ US 50 mainline, east of Silva Valley Parkway.

Table 3.14-4 Collision Data in the Vicinity of the Project Site

Location Description	Collision Rate ¹	Identified Action
El Dorado Hills Boulevard, Near Saratoga Way	0.59	None Required
El Dorado Hills Boulevard, Near Serrano Parkway	0.36	None Required
El Dorado Hills Boulevard, Near Francisco Drive	0.60	None Required
Green Valley Road, Near Miller Road	0.18	None Required
Green Valley Road, Near Francisco Road	0.53	None Required
Green Valley Road, Near El Dorado Hills Boulevard	0.82	None Required
Green Valley Road, East of Loch Way	0.26	None Required
Green Valley Road, Near Malcolm Dixon Road	0.22	None Required
Green Valley Road, Near Cambridge Road	0.35	None Required
Green Valley Road, West of Cameron Park Drive	0.35	None Required
Silva Valley Parkway, South of Serrano Parkway	0.45	None Required
Silva Valley Parkway, Near Netherdale Way	0.54	None Required
Silva Valley Parkway, Near Charter Way	0.54	None Required
Silva Valley Parkway, Near Timberline Ridge Road	0.37	None Required

¹ Number of Accidents per Million Vehicles (MV) for single sites (intersections/curves), # Accidents per Million Vehicle Miles (MVM) for roadway sections.

Source: Kimley-Horn 2022: Table 27 (Data taken from Annual Accident Location Study 2018, County of El Dorado Department of Transportation, April 10, 2019).

No geometric modifications to Caltrans' facilities are anticipated to be necessitated by the project; therefore, the safety evaluation focused on the incremental increase in volumes on these Caltrans' facilities attributed to the project. Per the TIMS data obtained, there were 18 mainline incidents west of El Dorado Hills Boulevard/Latrobe Road, 24 mainline incidents between El Dorado Hills Boulevard/Latrobe Road and Silva Valley Parkway, and 11 mainline incidents east of Silva Valley Parkway. Because the project is shown to contribute less than 1 percent to the peak-hour volumes along these segments and at most 21 trips to a segment with a total peak-hour volume of 4,346, the project's effect is anticipated to be nominal. Furthermore, because the project would contribute nominal traffic to freeway facilities in the vicinity of the project site, it is not anticipated to adversely affect bicycle or pedestrian facilities at or in the vicinity of the freeway ramp intersections.

Because of the intersection queuing evaluation, described above, the project is proposing the traffic signal operational improvements to El Dorado Hills Boulevard/Latrobe Road from White Rock Road to Saratoga Way and Silva Valley Parkway and Harvard Way intersection as identified in Chapter 2, "Project Description," to address queuing and operation issues. These improvements would not involve physical alteration of these intersections.

Summary

The project would be required to follow all County and industrywide safety standards and regulations related to construction activities, including those specified in the County DISM. Additionally, the project design would be required to meet local design standards and would be subject to review by County staff to ensure that applicable design standards and regulations are met to minimize transportation hazards during construction and operations. Although the project would be designed to meet County standards, transportation hazards could substantially increase without proper handling of equipment and circulation during project construction. Therefore, this impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 3.14-3: Prepare and Implement a Construction Traffic Control Plan

Prior to project construction, the project contractor(s) shall prepare and implement a detailed construction traffic control plan subject to review by the El Dorado County Department of Transportation. The traffic control plan shall demonstrate appropriate traffic handling during construction activities for all work that could impact the traveling public (e.g., the transport of equipment and materials to the project area). The traffic control plan shall minimize hazards through industry-accepted traffic control practices and, at a minimum:

- ▶ Include coordination with the responsible agency departments, including the County Department of Transportation and El Dorado Hills Fire Department no less than 10 days prior to the start of the work for each phase to specify whether any temporary vehicle, pedestrian, or bicycle construction detours are needed.
- ▶ Describe the proposed work zone; detours and/or lane closures if applicable; signalized and non-signalized intersections affected by the work; and trucks, including the number and size of trucks per day, expected arrival/departure times, and truck circulation patterns (i.e., restrict construction vehicle navigation to and from the project site to Green Valley Road so that heavy vehicles and equipment are not accessing the site via local roadways).
- ▶ Identify all staging areas.
- ▶ Provide flag personnel where warranted.
- ▶ Utilize portable message signs and information signs at construction sites as needed.
- ▶ Provide appropriate tapers and lengths, signs, and spacing.
- ▶ Provide appropriate channelization devices and spacing.
- ▶ Provide work hours/workdays.
- ▶ Provide proposed speed limit changes, if applicable.
- ▶ Ensure that adequate emergency vehicle access to all surrounding parcels and properties is always maintained.

Significance after Mitigation

Mitigation Measure 3.14-3 would require the preparation and implementation of a traffic control plan to minimize safety concerns during project construction and off-site improvements, including the alternative alignment for wastewater improvements, to the greatest degree feasible. The County would review the traffic control plan to ensure that safe movement is maintained for all modes of transportation during project construction. For these reasons, implementation of Mitigation Measure 3.14-3 would reduce this impact to **less than significant**.

Impact 3.14-4: Result in Inadequate Emergency Access

Fire services would be provided by the El Dorado Hills Fire Department. The project would be required to meet standards and regulations identified in the California Fire Code, as adopted by Fire Department Ordinance 2022-01, including provisions related to maintaining emergency access during construction and operations. Additionally, the project design would be subject to review by the County and emergency service agencies; thus, ensuring that the project would be designed to meet all applicable emergency access design standards. This impact would be **less than significant**.

Construction

The El Dorado Hills Fire Department would provide fire protection and emergency response services to the project site. The project would be required to comply with the 2022 California Fire Code, adopted by reference in El Dorado Hills Fire Department Ordinance 2022-01. Chapter 33 of the California Fire Code outlines general fire safety precautions during construction in order to maintain required levels of fire protection and promote prompt responses to fire emergencies. Section 3303.1 of the California Fire Code requires that an owner or authorized agent develop, implement, and maintain an approved written site safety plan that establishes a fire prevention program at the project site applicable during all phases of construction, repair, alteration, or demolition work. Section 3303.1.1

details the required elements that all site safety plans must have, including fire department vehicle access routes, and Section 3311.1 requires that approved vehicle access be provided to all construction or demolition sites. Per Ordinance 2022-01, the El Dorado Hills Fire Department has established additional fire and life safety requirements, including Section 3311.3 which requires that, prior to and during construction, an approved address sign be provided at each fire and emergency vehicle access road entry into the project site. The project would be required to adhere to these regulations, as well as all other applicable requirements included in the County Code; thus, the project would not result in inadequate emergency access during construction.

Operation

As described in Chapter 2, "Project Description," the project would include an emergency access/egress EAE at Lima Way to serve as a secondary means of emergency access and evacuation that would be gated but designed to be accessible by project residents during an evacuation order. There would also be two emergency vehicle access (EVA) road connections at Marden Drive and at East Green Springs Road (to the south) that would be stubbed to the property line for emergency vehicle use. These accesses would meet the design standards for gated developments as described in Section 130.30.090(D) of the El Dorado County Code of Ordinances and the El Dorado Hills Fire Department Ordinance 2022-01. The reader is referred to Section 3.17, "Wildfire and Evacuation," for a further analysis of emergency access and evacuation considerations for the project.

As detailed in Impact 3.14-3, the project would be designed in accordance with County design standards established in the DISM. Additionally, the project would be required to comply with the 2022 California Fire Code as adopted by reference in El Dorado Hills Fire Department Ordinance 2022-01. Appendix D of the Ordinance provides additional requirements for fire apparatus access roads, including minimum dimensions to allow for adequate access and turning radii for emergency vehicles accessing the project site during operations. Further, the project would be subject to review by the County and responsible emergency service agencies, thus ensuring that the project would be equipped to provide adequate access for emergency responders. Therefore, implementation of the project would not result in inadequate emergency access during operations.

Summary

The project would include designated emergency access routes and would be required to follow all El Dorado Hills Fire Department, County, and State standards and regulations to ensure that emergency vehicle access is provided during construction and operations. Additionally, the project would also be subject to County review to ensure that applicable design standards and regulations are met and adequate emergency access to the project would be provided. Therefore, the project would not result in inadequate emergency access. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.15 UTILITIES AND SERVICE SYSTEMS

This section presents the regulatory and environmental settings for utilities and service systems and evaluates the availability of existing utility and infrastructure systems (those related to water supply, recycled water, water treatment, and solid waste) to serve the project and the impact the project would have on these systems. Electricity use is analyzed in Section 3.5, "Energy;" however, potential environmental impacts related to electrical and natural gas infrastructure that would serve the project are analyzed in this section. The analysis presented in this section is based on documents obtained from El Dorado County, El Dorado Water Agency (EDWA), the El Dorado Hills Community Services District (CSD), El Dorado Irrigation District (EID), El Dorado Disposal, the California Department of Resources Recycling and Recovery (CalRecycle), and CTS Engineering and Surveying.

Comments received on the Notice of Preparation (NOP) regarding utilities included concerns regarding water supply; off-site water supply improvements and off-site wastewater conveyance improvements; annexation and verification of the project into the El Dorado Irrigation District; disruption of utilities during construction; and planned electrical and natural gas connections. These comments are addressed where appropriate throughout this section. The NOP and comments submitted in response to it are included in Appendix A.

3.15.1 Regulatory Setting

DOMESTIC WATER

Federal

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act (SDWA) (Public Law 93-523), passed in 1974, the US Environmental Protection Agency (EPA) regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA primary and secondary Maximum Contaminant Levels (MCLs). MCLs and the process for setting these standards are reviewed every 3 years. Amendments to the SDWA enacted in 1986 established an accelerated schedule for setting drinking water MCLs. EPA has delegated responsibility for California's drinking water program to the State Water Resources Control Board Division of Drinking Water (SWRCB-DDW). SWRCB-DDW is accountable to EPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by EPA.

State

Urban Water Management Plan

In 1983, the California Legislature enacted the Urban Water Management Planning Act (UWMPA) (California Water Code Sections 10610–10656). The UWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that provides more than 3,000 acre-feet (af) of water annually, should make every effort to ensure a level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. This effort includes the adoption of an urban water management plan (UWMP) by every urban-water supplier and an update of the plan every 5 years on or before December 31 of every year ending in a 5 or 0. The UWMPA has been amended several times since 1983 with the most recent amendment occurring with Senate Bill (SB) 318 in 2004. Additionally, beginning in July 2022, each urban water supplier must prepare an annual water supply and demand assessment.

EID adopted its current UWMP in June 2021 (EID 2021a).

California Safe Drinking Water Act

SWRCB-DDW is responsible for implementing the federal SDWA and its updates, as well as California statutes and regulations related to drinking water. State primary and secondary drinking water standards are promulgated in CCR Title 22, Sections 64431–64501.

The California Safe Drinking Water Act (CA SDWA) was passed in 1976 to build on and strengthen the federal SDWA. The CA SDWA protects the public from contaminants in drinking water by establishing MCLs that are at least as stringent as those developed by EPA, as required by the federal SDWA.

California Green Building Standards Code

In January 2010, the California Building Standards Commission adopted the statewide mandatory Green Building Standards Code (CALGreen) (CCR Title 24, Part 11). CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure in California. The 2022 CALGreen, which took effect on January 1, 2023, includes updates for planning and design, water efficiency and conservation, material conservation and resource efficiency, and environmental quality.

CALGreen requires the installation of energy- and water-efficient indoor infrastructure for all new projects beginning after January 1, 2011. It requires residential and nonresidential water efficiency and conservation measures for new buildings and structures that will reduce the overall potable water use in the building by 20 percent. The 20-percent water savings can be achieved by (1) installing plumbing fixtures and fittings that meet the 20-percent reduced flow rate specified in the CALGreen Code or (2) demonstrating a 20-percent reduction in water use from the building “water use baseline.”

California Model Water Efficient Landscape Ordinance

In 2006, the Water Conservation in Landscaping Act was enacted, which required the California Department of Water Resources to update the Model Water Efficient Landscape Ordinance (MWELO). In fall 2009, the Office of Administrative Law (OAL) approved the updated MWELO, which required that a retail water supplier adopt the provisions of the MWELO by January 1, 2010, or enact its own provisions equal to or more restrictive than the MWELO provisions.

The provisions of the MWELO, as revised in 2015, apply to new construction with a landscape area of 2,500 square feet or more. The MWELO provides a methodology to calculate total water use based on a given plant factor and irrigation efficiency. Finally, the MWELO requires the landscape design plan to delineate hydrozones (based on plant factors) and then assign a unique value for each hydrozone (low, medium, or high water use). The design of landscape irrigation systems is anticipated to better match the needs of grouped plant types and thus result in more efficient outdoor irrigation. Water-saving improvements over the prior MWELO include more efficient irrigation requirements, incentives for graywater use, and limits on the portion of landscapes that can be planted with high-water-use plants.

Senate Bill x7-7 (Chapter 4, Statutes of 2009)

SB x7-7, the Water Conservation Act of 2009, required the state to achieve a 20-percent reduction in urban per capita water use by December 31, 2020. The responsibility for this conservation falls to local water agencies, which must increase water use efficiency through promotion of water conservation standards consistent with the California Urban Water Conservation Council’s (CUWCC’s) best management practices (BMPs). Each urban retail water supplier is also required to develop urban water use targets and an interim urban water use target by July 1, 2011, based on the alternative methods set out in the 2009 act. EID is a signatory to the memorandum of understanding that commits CUWCC members to implementation of the BMPs.

Cortese-Knox-Hertzberg Local Government Reorganization Act

Local agency formation commissions (LAFCOs) are state-mandated quasi-judicial countywide commissions that have the sole discretion to approve, modify and approve, or disapprove boundary changes of cities and special districts; the formation of new agencies, including the incorporation of new cities and districts; and the consolidation or reorganization of special districts and or cities as provided for under the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. LAFCOs are charged to ensure the orderly formation of local governmental agencies, preserve agricultural and open space lands, and discourage urban sprawl. The project would need to be approved into the surrounding service districts.

Local

El Dorado County General Plan

General plans are state-mandated jurisdiction-wide planning documents that contain goals, objectives, and policies related to services and designs critical to the jurisdiction's future growth and development. They guide jurisdiction initiatives, project designs, and implementation processes to ensure the orderly formation of planned community design. Projects approved in El Dorado County must comply with El Dorado County General Plan's objectives and policies. The following objectives and policies related to water supply are applicable to the project:

- ▶ **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 [presented in this EIR as Table 3.15-1].

The following Levels of Service shall apply to the review of discretionary projects.

Table 3.15-1 General Plan Table 5-1: 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 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 Public Services and Utilities Element.

- **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.
- ▶ **Objective 5.2.1: County-Wide Water Resource 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.
 - **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 5.2.1.9:** 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.
 - **Policy 5.2.1.12:** The County shall work with the El Dorado Irrigation District (EID) to support the continued and expanded use of recycled water, including wet season use and storage, in new subdivisions served by the Deer Creek and El Dorado Hills Wastewater Treatment Plants. To avoid the construction impacts of installing recycled water facilities, the County shall encourage the construction of distribution lines at the same time as other utilities are installed. Facilities to consider are recycled water lines for residential landscaping, parks, schools, and other irrigation needs, and if feasible, wet-irrigation-season storage facilities.
- ▶ **Objective 6.10.1: Encourage Water Efficiency.** Promote cost-effective water conservation and water efficiency measures.
 - **Policy 6.10.1.3:** Require new development to demonstrate that adequate water is available before project approval and to fund its fair-share costs associated with the provision of water service.

El Dorado Local Agency Formation Commission

El Dorado LAFCO is a state-mandated local agency whose jurisdiction is all of El Dorado County. The California Legislature directs El Dorado LAFCO to promote orderly growth and development, discourage urban sprawl while preserving open space and agricultural lands, and encourage efficient service areas for local governments, as provided under the Cortese-Knox-Hertzberg Local Government Reorganization Act.

LAFCOs are responsible for reviewing and approving proposed boundary changes for most public agencies, including annexations and detachments of territory to or from cities and special districts; incorporations of new cities; formations of new special districts; and consolidations, mergers, and dissolutions of existing districts. In addition, LAFCOs must review and approve contractual service agreements, must determine spheres of influence (SOIs) (plans that show future service areas and boundaries) for each city and district, and may initiate proposals involving district consolidation and dissolution. As described in Chapter 2, "Project Description," the project involves annexation into the El Dorado Hills CSD, EID, and El Dorado Hills Fire Department. The following policies must be met for the project to receive annexation from the El Dorado LAFCO:

- ▶ **Policy 3.2.16:** When evaluating environmental impacts discovered during the Initial Study process, LAFCO will identify such impacts as potentially significant and adverse if:
 - Build-out of the proposed project may cause service levels to decline below established standards, costs of service provision to rise substantially to the detriment of service levels, or cause those currently receiving service to receive reduced or inadequate services especially when such change may cause adverse health and safety or other physical impacts;
 - Build-out of the proposed project may cause the infrastructure capacity of a service provider to exceed planned and safe limits especially when such change may cause adverse health and safety or other physical impacts;
 - The proposed project includes or plans for infrastructure capacity, especially water and sewer lines, that exceed the needs of the proposed project and may be used to serve areas not planned for development, especially those containing prime agricultural land, mineral, sensitive plant and wildlife or other important resources;
 - The proposed plan could cause health and safety or other physical impacts because a service provider is incapable of providing service, the proposal has an illogical boundary, or elements needed to provide service (water supply, treatment facilities, equipment, energy) are not available, or stressed beyond capacity.
 - The proposed project is substantially inconsistent with applicable Sphere of Influence Plans, long range and area service plans, phased land use plans of any city or county, or resource conservation plans of the state or federal government.
 - In the case of Sphere of Influence and area of service plans, the Environmental Coordinator reviews the appropriate plans and determines whether the level of significance warrants additional review. In the case of public agency land use or resource plans, the affected agency shall provide specific information regarding the nature and substance of the project's potential impacts upon its plans or programs.
 - The proposed project may induce substantial growth on important agricultural and open space lands because it would:
 - Permit the extension of, or require, infrastructure such as flood control levees or water diversions, electrical, water or sewer lines, especially trunk lines, roadways or other public facilities that would permit new development in a substantial area currently constrained from development;
 - Be adversely and substantially inconsistent with the agricultural, open space, resource conservation or preservation, growth management, trip reduction, air quality improvement or other plans, policies or Ordinances of the General, Community, Specific or other Plan of the land use jurisdiction responsible for the project site or vicinity.

- Cause significant adverse cumulative impacts when considered in conjunction with other recent, present and reasonably foreseeable projects;
 - Result in substantial noncontiguous development which, in turn, results in adverse physical impacts;
 - Have no need for service and the proposed project adversely affects important public resources or the public health and safety;
 - Adversely impact animal or plant species either listed as, or determined to be, endangered, rare, or threatened as provided in §15380; or
 - Be identified as potentially significant when completing the Initial Study checklist adopted as Exhibit A of LAFCO's CEQA procedures.
- ▶ **Policy 3.3.2.2:** If service cannot be provided without expanding service capacity or constructing infrastructure (other than at parcel connections to service), then the following information shall be provided:
- A description of any required facility or infrastructure expansions or other necessary capital improvements;
 - The likely schedule for completion of the expanded capacity project, the viability of the needed project, and the relation of the subject project to the overall project and project time line;
 - A list of required administrative and legislated processes, such as CEQA review or State Water Resources Board allocation permits, including assessment of likelihood of approval of any permits and existence of pending or threatened legal or administrative challenges if known;
 - The planned total additional capacity;
 - The size and location of needed capital improvements;
 - The proposed project cost, financing plan and financing mechanisms including a description of the persons or properties who will be expected to bear project costs; and
 - Any proposed alternative projects if the preferred project cannot be completed (include information in letters "a" through "f" for each proposed alternative).
- ▶ **Policy 3.4.1: Consistency with General and Specific Plans.** For the purposes of this policy, a project is consistent if the type and level of services to be provided are consistent with and appropriate to the applicable General or Specific Plan land use designations and document text, and the applicable General or Specific Plan is legally adequate and internally consistent. The Commission will not approve projects that are inconsistent with the applicable General or Specific Plan unless the following circumstances are shown to exist:
- The site is fully developed and located in an existing developed area where district or city facilities are present and found by LAFCO to be sufficient for service and where the Commission determines that the change of organization or reorganization will not induce growth in the area.
 - The site is fully developed and located in an existing developed area where LAFCO finds that the public interests of health, safety, and welfare would best be served, or that clear and present health or safety hazards could be mitigated, by the proposal.
 - The site is located in an undeveloped area where disapproval would cause a loss of service to existing service users.
- ▶ **Policy 3.4.3: Planning and pre-zoning.** All territory proposed for annexation must be specifically planned and/or pre-zoned by the appropriate planning agency. The planning or pre-zoning of the territory must be consistent with the applicable General or Specific Plan and sufficiently specific to determine the likely intended use of the property.
- ▶ **Policy 3.4.5:** Pending changes to applicable land use designations, zoning, or pre-zoning must be completed before review of the proposal.

- ▶ **Policy 3.9.1:** Every determination made by the Commission shall be consistent with the Spheres of Influence of the local agencies affected by that determination (§56375.5).
- ▶ **Policy 3.9.3:** Lands to be annexed which are within an adopted Sphere of Influence shall be physically contiguous to the boundaries of the annexing agency except under one of the following circumstances (§56119):
 - Existing developed areas where LAFCO determines that interests of public health, safety, and welfare would best be served by the extension of the service, or which represent clear or present health or safety hazards that could be mitigated by the proposal and city or district facilities are present and sufficient for service.
 - Existing developed areas where city or district facilities are present and sufficient for service, and where the Commission determines that the annexation will not induce growth.
- ▶ **Policy 3.9.7:** The resulting boundary configuration shall not produce areas that are difficult to serve (§56668, §56001).
- ▶ **Policy 3.10.6:** Development of existing vacant lots for urban uses should be encouraged before any proposal is approved which would allow for or lead to the development of existing agricultural lands for nonagricultural uses. Spheres of influence should reflect consideration for existing and/or potential agricultural uses (§56668).
- ▶ **Policy 6.1.2:** An annexation shall not be approved unless the annexing agency is willing to accept the annexation.
- ▶ **Policy 6.1.4:** It is the policy of the Commission to approve changes of organization that encourage and provide planned, well ordered, efficient development patterns, that include the appropriate preservation and conservation of open space and prime agricultural lands within and around developed areas, and contribute to the orderly formation and development of local agencies based upon local circumstances and conditions (§56300, §56301).
- ▶ **Policy 6.1.5:** The Commission shall consider existing zoning and pre-zones, general plans, and other land use plans, interests and plans of unincorporated communities, SOIs and master service plans of neighboring governmental entities and recommendations and determinations from related service reviews (§56375, §56668).
- ▶ **Policy 6.1.7:** Prior to annexation to a city or special district, the petitioners shall demonstrate that the need for governmental services exists, the annexing agency is capable of providing service, that a plan for service exists, and that the annexation is the best alternative to provide service (§56700, §56668).
- ▶ **Policy 6.1.8:** LAFCO will discourage projects that shift the costs of services and infrastructure benefits received to others or other service areas.
- ▶ **Policy 6.1.9:** The proposed annexation shall be a logical and reasonable expansion to the annexing district (§56001, §56119, §56668).
- ▶ **Policy 6.2.1:** The annexation must provide for the most efficient delivery of services. The most efficient services are those provided at the lowest cost and highest service level. In the case of similar providers with the same level of service, the one that delivers the same service at the lowest cost will be considered to be most efficient.
- ▶ **Policy 6.2.2:** The annexation shall be modified, conditioned or disapproved if it permits the more efficient delivery of one or more services to the detriment of other services.
- ▶ **Policy 6.2.3:** The annexing agency must demonstrate that no parcel located within district boundaries will be deprived of its right to receive services if the annexation is approved (§56668).
- ▶ **Policy 6.2.4:** The annexing agency must demonstrate that levels of service for existing and potential customers within its service boundaries will not be lowered, or costs of service increased, if the annexation is approved (§56668). If any adverse impacts may occur, the applicant or annexing agency must provide, for LAFCO consideration, a written justification for project approval despite the negative impacts.

El Dorado Irrigation District

Integrated Water Resources Master Plan

EID's Integrated Water Resources Master Plan (IWRMP), adopted in 2013, considers potable water and recycled water resources for the EID service area. The IWRMP addresses the maintenance of EID's existing water and recycled water facilities and the development of future water resource infrastructure. To serve the existing and anticipated development in EID's service area, the IWRMP contains the following relevant objectives:

- ▶ Develop a reliable, long-term water resources program which considers existing water supply, future demand, hydroelectric power generation, and environmental and economic constraints.
- ▶ Define the long-term role of recycled water within the District's water resources portfolio.
- ▶ Identify and implement approaches to address future constraints, which may impact the District's service to its customers.
- ▶ Develop integrated and prioritized water, wastewater, and recycled water system capital improvements that are consistent with the District's long-term goals and objectives.

The IWRMP considers key water supply issues facing EID's service area, including reliability, infrastructure constraints, competing water resource needs, and the future role of recycled water. It identifies existing and projected water demands and the water supplies and distribution systems that serve them, proposes and evaluates alternative future water supply solutions, and recommends a specific water resources plan to maximize water supply availability and reliability.

2022 Water Supply and Demand Report

The EID Water Supply and Demand Report is updated every 3 years to determine the current water supply and water meter availability in the EID. Board Policy 5010, Water Supply Management, states that EID will not issue any new water meters if there is insufficient water supply. The report summarizes current water supply and total potential demand, water commitments, and historical trends in water demand (EID 2022a).

Drought Preparedness Plan

In 2007, EID developed a comprehensive preparedness plan to help identify drought conditions and determine when El Dorado County would be considered to be entering into drought conditions. The EID Board of Directors adopted the Drought Preparedness Plan in 2008. Drought stages identified in the Drought Preparedness Plan range in increasing severity from 0 to 3 and consider the potential for water shortage emergencies related to an unexpected disruption of supply, storage, or distribution system facilities (EID 2008).

EID uses the Drought Preparedness Plan to develop an action plan that would address a drought situation. In single-dry years, EID would follow the Drought Preparedness Plan, along with adopted policies, when implementing voluntary or mandatory demand reduction measures. In the event of a second dry year, EID would invoke the first stage of the Drought Preparedness Plan, informing the public of predicted water shortages and encouraging conservation of up to 15 percent of normal demand through voluntary conservation. In a third dry year, EID would implement the Drought Preparedness Plan's second stage, increasing efforts to reduce demand by up to 30 percent of normal use through voluntary and mandatory conservation measures. EID's Drought Action Plan, updated most recently in 2021, implements the Drought Preparedness Plan and provides further direction in the event of drought conditions and includes characteristics and actions associated with the stages outlined in the Drought Preparedness Plan.

2020 Urban Water Management Plan

EID's UWMP was updated in 2021. The UWMP draws on local, regional, and statewide inputs to synthesize information from numerous sources into a reliable water management action plan designed to be referred to as management- and board-level decisions arise and conditions change. The UWMP addresses EID's water management planning efforts to ensure adequate water supplies to meet forecast demands over the next 25 years. As required by the UWMPA, EID's 2020 UWMP specifically assesses the availability of EID supplies to meet forecasted

water uses during average, single-dry, and 5 consecutive dry years through 2045. Verifying that future demands will not exceed supplies and ensuring the availability of supplies in dry-year conditions are critical outcomes of the 2020 UWMP. The 2020 UWMP is an update to EID's 2015 UWMP and presents new data and analysis as required by the California Department of Water Resources and the California Water Code since 2015. The 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.

El Dorado Water Agency Water Resources Development and Management Plan

The 2019 EDWA (formerly El Dorado County Water Agency) Water Resources Development and Management Plan (WRDMP) identifies water sources and demands and resource management strategies to counter droughts, wildfires, deteriorated headwaters, limited groundwater resources, and fragmented water management threats to the county (Stantec 2019). The WRDMP is the countywide water plan to support the realization of the vision established in the County General Plan. The goal of the resource management strategies presented in the plan is to proactively address changing water resources needs, regulatory requirements, and climate variability. The focused and defined role and responsibility in implementing actions for advancing these strategies would ensure effectiveness and efficiency in achieving anticipated outcomes while promoting the agency's long-term organizational and financial sustainability. The WRDMP identifies several principal implementing agencies and their roles, including EID, the Georgetown Divide Public Utility District, Grizzly Flats Community Services District, El Dorado LAFCO, the South Tahoe Public Utility District, the Tahoe City Public Utility District, and the Tahoe Regional Planning Agency.

WASTEWATER

Federal

Clean Water Act

The Clean Water Act (CWA) employs a variety of regulatory and nonregulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Those portions of the CWA that relate to wastewater and stormwater discharges are discussed below.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established under the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges, including point source waste discharges and nonpoint sources (nonpoint source discharges are further discussed in Section 3.9, "Hydrology and Water Quality"). Each NPDES permit identifies limits on allowable concentrations and mass loadings of pollutants contained in the discharge.

NPDES permits cover various industrial and municipal discharges, including discharges from storm sewer systems in larger cities, stormwater generated by industrial activity, runoff from construction sites disturbing more than 1 acre, and mining operations. Point source dischargers must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). So-called "indirect" point source dischargers are not required to obtain NPDES permits. "Indirect" dischargers send their wastewater into a public sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering any surface water.

State

NPDES Permit for the El Dorado Hills Wastewater Treatment Plant

In August 2017, the Central Valley Regional Water Quality Control Board (RWQCB) issued Waste Discharge Requirement (WDR) Order No. R5-2017-0085-002 (NPDES No. CA G585001) to EID for its El Dorado Hills Wastewater Treatment Plant, which treats wastewater from its service area before discharging it to Carson Creek in the San Joaquin River watershed. This is an individual NPDES permit issued by the Central Valley RWQCB, and the water quality objectives established in the Central Valley RWQCB Basin Plan are protected, in part, by NPDES Permit No. CA 0078671.

The quality of the effluent that can be discharged to waterways in the San Joaquin River Basin area is established by the Central Valley RWQCB through WDRs that implement the NPDES permit. WDRs are updated at least every 5 years. A new permit must be issued in the event of a major change or expansion of the facility.

Cortese-Knox-Hertzberg Local Government Reorganization Act

The reader is referred to the discussion above under "Domestic Water."

Local

El Dorado County General Plan

The reader is referred to the discussion above under "Domestic Water." The following objectives and policies related to wastewater service are applicable to the project:

- ▶ **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.

El Dorado Local Agency Formation Commission

The reader is referred to the discussion above under "Domestic Water."

El Dorado County On-Site Wastewater Treatment Systems Standards

Chapter 110.32. of the County Code of Ordinances establishes standards for the siting, design, installation, operation, and maintenance of on-site wastewater treatment systems (OWTS) in the county to protect the environment and public health. These standards are consistent with the state OWTS adopted by SWRCB pursuant to SWRCB Resolution 2012-0032. 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 (El Dorado County 2018) 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.

SOLID WASTE

Federal

There are no federal laws or policies pertaining to solid waste management that are applicable to this project.

State

California Integrated Waste Management Act (AB 939) and CalRecycle

The California Integrated Waste Management Act of 1989 is the result of two pieces of legislation, Assembly Bill (AB) 939 and SB 1322, which created the California Integrated Waste Management Board (now known as CalRecycle). The California Integrated Waste Management Act mandated a goal of 25-percent diversion of each city's and county's waste from disposal by 1995 and 50-percent diversion in 2000, with a process to ensure environmentally safe disposal of waste that could not be diverted.

CalRecycle is the state agency designated to oversee, manage, and track the 92 million tons of waste generated in California each year. It provides grants and loans to help California cities, counties, businesses, and organizations meet the state's waste reduction, reuse, and recycling goals.

SB 1016, signed into law on September 26, 2008, represents a fundamental shift in the way local jurisdictions are measured for compliance with state diversion mandates. Jurisdictions are now evaluated based on the implementation of programs that measure per capita waste disposal rather than diversion percentage.

SB 1383, signed into law in 2016, requires that organic materials be kept out of landfills and targets a 50-percent reduction of statewide organic waste disposal from the 2014 level by 2020 and a 75-percent reduction by 2025. The bill grants CalRecycle regulatory authority to achieve the organic waste disposal reduction targets and establishes an additional target that no less than 20 percent of the edible food currently disposed of be recovered for human consumption by 2025. Attaining this goal will require an expansion of California's organics infrastructure.

Local

El Dorado County General Plan

The reader is referred to the discussion above under "Domestic Water." The following objectives and policies related to solid waste are applicable to the project:

- ▶ **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.

El Dorado County Code of Ordinances

Municipal Code Chapter 8.42: Solid Waste Management

The County's solid waste management ordinance governs the accumulation, storage, collection, and disposal of solid waste generated on residential, commercial, and industrial properties in El Dorado County. The ordinance includes prohibitions and permit requirements for specific activities (El Dorado County 2023).

Municipal Code Chapter 8.43: Construction and Demolition Debris Recycling within the County

The El Dorado County Construction and Demolition Debris Recycling Ordinance establishes a program for the recycling and salvage of construction and demolition debris. The ordinance requires at least 50 percent of the debris from construction and demolition projects with structure footprints exceeding 5,000 square feet to be diverted from landfills through recycling practices. Before the issuance of a permit, the project applicant must file a Debris Recycling Acknowledgment (DRA) with the County's 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. If the Debris Recycling Report is not filed or approved within 2 years of the date the DRA was filed, the project applicant would be required to submit a Performance Securities with subsequent DRAs.

El Dorado County Solid Waste Management Plan

The El Dorado County Solid Waste Management Plan, adopted in 2012, was designed to assist the County with reaching a future 75-percent landfill diversion goal. 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. It also includes estimated costs and funding methods for the program and infrastructure strategies (El Dorado County 2012).

ENERGY

Refer to Section 3.5, "Energy," for plans, policies, regulations, and laws that are applicable to energy for the project.

3.15.2 Environmental Setting

WATER SUPPLY

EID provides water service to communities in the western half of El Dorado County. Its service area, which covers 220 square miles, stretches from El Dorado Hills, which is the western boundary, to Strawberry, which is the most eastern boundary. EID depends on surface water from the watersheds of the Sierra Nevada to serve existing and future customers through a complex network of storage, treatment, and transmission facilities. EID maintains two primary interconnected water systems in its contiguous service area: the El Dorado Hills system and the Western/Eastern system, along with a separate recycled water system. The El Dorado Hills water system obtains its primary supplies under rights and entitlements from Folsom Reservoir. The Western/Eastern system derives its supplies from sources under rights and entitlements emanating from further up the American River watershed and the Cosumnes River watershed. The recycled water system uses treated wastewater from the El Dorado Hills Wastewater Treatment Plant (EDHWWTP) and the Deer Creek Wastewater Treatment Plant (DCWWTP). The water assets can be further categorized by the service area they primarily serve and the treatment plant they flow through. Water derived from Folsom Reservoir is delivered to the El Dorado Hills water treatment plant and serves the El Dorado Hills area. Water assets from these upstream diversions can be delivered by gravity feed to the El Dorado Hills area, but assets from Folsom Reservoir are not delivered outside the El Dorado Hills area because of infrastructure limitations.

EID has developed and maintains several water resource plans: a UWMP, an IWRMP, and the 2022 Water Supply and Demand Report.

The 2020 UWMP provides the following information: service area physical description; potable water system description; local climate; and regional population, employment, and housing. In addition, this plan describes water supply reliability and water shortage contingency planning (EID 2021a). EID estimates future demand based on El Dorado County's General Plan and County growth projections. This includes a demand forecast for new residential connections in the El Dorado Hills region that increases to approximately 1,285 residential units by 2025, 4,068 by 2035, and 7,050 by 2045. A single-family home uses approximately 0.51 acre-feet per year (afy) for each connection, which corresponds to EID providing an additional 3,595 afy to residential units in its service area by 2040. Total demand in EID's service area for all water use types is anticipated to be 38,980 afy in 2025, 40,920 afy in 2035, and 43,320 afy in 2045 (EID 2021a).

Based on existing supplies, the average water supply under normal conditions is 70,800 afy with a current demand of 35,910 afy. An additional 7,500 afy of planned supplies and 3,500 afy of recycled water are expected to be available after 2045. Combined, EID anticipates the total average future water supplies to equal 78,294 afy. By the third year of a multiple-year drought, water availability associated with existing supplies would be reduced to 55,300 afy, whereas an estimated total of 56,600 afy would be available after 2040 when planned supplies are accounted for.

These planned water sources are as follows:

- ▶ Central Valley Project Fazio Water: 7,500 afy (normal year – available in 2035)
- ▶ El Dorado-Sacramento Municipal Utility District Agreement: 40,000 afy (currently 30,000 afy through 2025 and increased to 40,000 thereafter)
- ▶ Recycled water: 3,500 afy (does not anticipate expansion of the existing recycled water system) (EID 2021a).

Tables 3.15-2, 3.15-3, and 3.15-4 summarize EID water supply and demand estimates.

The 2013 IWRMP provides a plan that optimizes the use of EID’s water resources and provides a roadmap for cost-effective development of future infrastructure and maintenance of existing facilities. It provides water use factors for land uses included in the El Dorado County General Plan, based on historic water demand in EID’s service zones (eastern, western, and El Dorado Hills) (EID 2013).

Table 3.15-2 EID Water Supply and Demand Comparison – Average Year (acre-feet per year)

	2025	2030	2035	2040	2045
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

Source: EID 2021a.

Table 3.15-3 EID Water Supply and Demand Comparison – Single Dry Year (acre-feet per year)

	2025	2030	2035	2040	2045
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 2021a.

Table 3.15-4 EID Water Supply and Demand Comparison – Multiple Dry Years (acre-feet per year)

		2025	2030	2035	2040	2045
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 2021a.

The facility plan report for the project, which was accepted by EID on February 9, 2022, stated that sufficient equivalent dwelling units (EDUs) of water supply were available in the El Dorado Hills Water Supply Region in 2021. The 2022 Water Supply and Demand Report provided updated calculations and reported that in 2022, approximately 16,910 EDUs of water supply were available in the El Dorado Hills water supply region (EID 2022a).

Surface Water Supply

EID's treated water supply that services El Dorado Hills includes water rights obtained under Warren Act contracts for Slab Creek, Hangtown Creek, and Mill Creek that are stored in Weber Reservoir until use. Some water rights from the Central Valley Project are also reserved for El Dorado Hills and may be used to service the project area (EID 2021a). EID's water assets available for the project include water rights and entitlements that EID currently has in its possession and planned water rights and entitlements that it will control in the future (EID 2021a).

EID's water conveyance system is a combination of pipelines, regulating reservoirs, diurnal storage tanks, and a few Gold Rush-era ditches. EID does not use groundwater as a supply source and is able to rely on surface water.

The 2022 Water Supply and Demand Report estimates that the El Dorado Hills Supply Area obtains 21,235 af annually from Folsom Reservoir (EID 2022a). This allocation includes a water service contract with the US Bureau of Reclamation for 7,550 af (1,235 af in multiple-dry years), a Warren Act contract for the Ditch/Weber Reservoir water rights totaling 4,560 af (3,000 af in multiple-dry years), and 17,000 af from Water Right Permit 21112 (EID 2022a). As of January 2022, 16,910 EDUs of water were available for residential use from EID (Brink, pers. comm., 2024).

Recycled Water

In addition to a potable water system, EID operates a recycled water system that provides tertiary treated recycled water from the EDHWWTP and the DCWWTP to serve portions of the service area to the west bordering Sacramento County (EID 2021a).

In 2004, the EID Board of Directors mandated the use of recycled water for all new subdivisions and developments in the recycled water service area. The recycled water infrastructure is present north and south of US 50. The area north of US 50 mainly serves the Serrano Country Club and is bounded by Western Sierra Way to the north, El Dorado Hills Parkway to the west, and Bass Lake to the east. From there, the recycled water line runs to the DCWWTP. The recycled water infrastructure area south of US 50 is bounded by Wetsel-Oviatt Road to the south, Carson Crossing Drive to the west, and Valley View Parkway to the east and is supplied by the EDHWWTP (EID 2021a: 2-20). EID produces recycled water at both the EDHWWTP and the DCWWTP that is then used by EID customers for irrigation of residential landscapes, commercial landscapes, and recreation turf, and, in a few areas, for fire suppression and dust control (EID 2022a, 19). Currently, the EDHWWTP and DCWWTP produce more than 900 million-acre feet of recycled water each year for more than 5,600 customers and businesses in the El Dorado Hills community (EID 2023a).

The availability of recycled water is currently limited within the recycled water service area described above. The EID recycled water system is supplied from the EDHWWTP and DCWWTP, an interconnected network of transmission and distribution pipelines, pump stations, storage tanks, pressure-reducing stations, and facilities located in the communities of El Dorado County (EID 2021a). Daily wastewater influent flows and a 70-million-gallon recycled water storage reservoir limit current recycled water supplies to approximately 3,500 afy (EID 2021a). EID does not anticipate any significant expansion of the recycled water system in the future, because of the current supply and demand imbalance, the additional cost of recycled water infrastructure, long-term operational costs, and sufficiency of potable water supplies. EID's 2020 UWMP uses the conservative assumption that the recycled water supply is 3,500 afy and remains at 3,500 afy throughout the planning period, to avoid the risk of potentially overestimating the availability of recycled water supplies (EID 2021a). The project site is not in the recycled water service area, adjacent neighborhoods receive recycled water services, but EID does not plan to expand services to the project site (EID 2021a).

WASTEWATER AND STORMWATER

There is one existing septic tank on-site associated with the existing residence. EID has five wastewater service areas. The three largest service areas—El Dorado Hills, Deer Creek, and Motherlode—are served by a series of lift stations, force mains, and gravity mains, which convey sewage to either the EDHWWTP or the DCWWTP. Sewage from the El Dorado Hills service area (including the project site) is treated at the EDHWWTP.

The EDHWWTP is located approximately 1.25 miles south of US 50, directly adjacent to Latrobe Road and situated along a hillside with both Carson Creek and Latrobe Road bordering the plant to the west and a 66-million-gallon storage pond bordering the plant to the east. The El Dorado Hills wastewater system serves an area of approximately 24.9 square miles located between the western El Dorado County boundary and Bass Lake Road (EID 2021a). The collection system consists of 30 lift stations and approximately 249 miles of pipeline composed of 229 miles of gravity sewers and 19 miles of force mains (EID 2021a: 8-2). The average dry weather flow (ADWF) capacity at EDHWWTP is 4 million gallons per day (mgd) (EID 2021b). The EDHWWTP's 2021 ADWF was 2.65 mgd (EID 2021b: 119).

Wastewater flows described in the EID IWRMP are based on growth defined by the County General Plan and the portions of the city of Placerville served by EID (EID 2013). The fundamental planning basis for developing water demands and projected wastewater flows is the planned land use presented in the County General Plan over the 20-year planning horizon of the plan, including the specific plans developed for the communities of Bass Lake Hills, Carson Creek, El Dorado Hills, Northwest El Dorado Hills, Promontory and Valley View (El Dorado County 2019). EID uses its wastewater generation rates, combined with the County General Plan land use designations and the number of planned connections in each of these specific plans, to project wastewater flows for the El Dorado Hills and Deer Creek collection systems (EID 2013).

The IWRMP assumes that approximately 1,800 acres of development, including residential, commercial, and industrial properties, will be in the El Dorado Hills collection system area, primarily consisting of infill and new developments along the eastern and southern perimeters of the El Dorado Hills collection system. The IWRMP predicts total wastewater flows of 5.45 mgd for the El Dorado Hills system after full buildout is complete in the service area (EID 2013: 93). The plan predicts future flows of 0.88 mgd in areas with land use designations but no specific plan and an additional 1.92 mgd wastewater production from planned communities in the EDHWWTP's service area. The total future wastewater flows of 5.45 mgd for the El Dorado Hills system, as described above, were determined by adding these projections to existing flows. The future wastewater flows would be beyond the EDHWWTP's capacity. However, EID has planned expansion projects for the system. In 2013, the EDHWWTP was expanded to manage an ADWF of 4.0 mgd, and a subsequent expansion is planned to manage the predicted future flows (EID 2013: 151). EID's Capital Improvement Plan identifies project proposals to continue to expand EDHWWTP's capacity to treat future wastewater flows (EID 2023b). Additionally, per EID administrative regulations, individual developers will be responsible for the planning, engineering, and construction of proposed sewer systems located in their respective development projects. Proposed sewer systems must be designed in accordance with EID's design standards and are subject to EID approval (EID 2013).

Wastewater Treatment and Disposal

Treated effluent is either recycled or discharged to Carson Creek, a tributary to the Cosumnes River in the San Joaquin watershed. The EDHWWTP discharges to Carson Creek between November and April and distributes all treated effluent to the recycled water system between May and October. According to 2022 records, approximately 363 af of water was treated at the EDHWWTP and was sent to the recycled water system for reuse (EID 2022a: 13). Disinfected tertiary treated recycled water produced at the EDHWWTP is distributed for irrigation of residential and commercial landscapes and for use at construction sites.

Stormwater

As stated in Section 3.9, "Hydrology and Water Quality," and Chapter 2, "Project Description," all stormwater would be managed in the project area. A more extensive analysis of the stormwater plan and management is described in Section 3.9, "Hydrology and Water Quality."

SOLID WASTE

This section provides background information on the County's solid waste services, including information from CalRecycle, the El Dorado Hills CSD, and the El Dorado County Solid Waste Management Plan.

The County has franchise agreements with six companies to collect and manage solid waste. El Dorado Disposal, a Waste Connections company, serves the unincorporated areas of El Dorado County and the El Dorado Hills CSD within which the project site is located (EDHCSD 2023).

Construction and demolition debris recycling state law mandates that a minimum of 65 percent of the waste materials generated from covered construction and demolition projects must be diverted from being landfilled by being recycled or reused on-site. The El Dorado County Construction and Demolition Debris Recycling Ordinance applies to all residential and nonresidential projects in the unincorporated areas of the county that require a building permit (El Dorado County 2023).

Refuse collection is mandatory in the El Dorado Hills CSD area, and El Dorado Disposal has approximately 12,095 residential customers. Two transfer stations/materials recovery facilities (MRFs) are located in El Dorado County, where solid waste is taken and diverted to landfills, recycling facilities, and other locations. These facilities are located in Diamond Springs and South Lake Tahoe. The El Dorado Disposal Diamond Springs MRF serves western El Dorado County. It can process 400 tons per day and currently processes approximately 70 tons per day (ICF 2022). According to CalRecycle's Recycling and Disposal Reporting System database, unincorporated El Dorado County averaged approximately 28,537 tons of landfill waste per quarter in 2022 (CalRecycle 2023).

The Potrero Hills Landfill, located in Solano County, California, is used by the waste collection and disposal services for the project area (El Dorado County 2014). The Potrero Hills Landfill is a Class III landfill that accepts only nonhazardous waste for disposal (CalRecycle 2023). The landfill's disposal area is 340 acres, and the solid waste facility permit for this landfill (48-AA-0075) authorizes the facility to receive a peak daily waste flow of 4,330 tons (CalRecycle 2023). The current average disposal volume is approximately 2,700 tons per day (CalRecycle 2024). The estimated closure date for the landfill is 2062 (CalRecycle 2024).

Solid waste in El Dorado County is generated from a mix of residential, commercial, and industrial sources. Approximately 139,000 tons of solid waste were generated in El Dorado County in 2010, an average of 0.77 ton per person based on a 2010 population of approximately 180,000 (El Dorado County Environmental Management Department 2012). Approximately 91,424 tons of this waste was generated by commercial uses (El Dorado County Environmental Management Department 2012: 3-6). The US Census Bureau estimates that the population of El Dorado Hills was 50,547 in 2020 (US Census Bureau 2022), and the residential population generating solid waste in El Dorado Hills in 2020 was estimated to be 47,000 (El Dorado County Environmental Management Department 2012: Table 3-1).

The primary generator of residential waste in this area is single-family homes because El Dorado County has a higher proportion of single-family homes than the statewide average. The greatest increase in waste disposal over the County's 20-year planning period will be from the projected population increase in the El Dorado Hills community because the population for the El Dorado Hills area is anticipated to increase by approximately 30 percent by 2030 (El Dorado County Environmental Management Department 2012). As of 2020, El Dorado Disposal has been collecting green waste biweekly from residential units as a policy to increase diversion from the regional landfill.

The El Dorado Hills CSD is contracted with El Dorado Disposal until June 2030 for waste recycling (EDD 2023). El Dorado Disposal collects mixed recycling and green waste materials on alternate weeks from residences in the CSD service area and allows residents to bring recycling material to the Diamond Springs MRF (EDD 2023). El Dorado Disposal encourages residents to dispose of yard waste through home composting, through curbside pickup, or by taking it to a transfer station that accepts "clean green" materials (El Dorado County 2012). In addition, El Dorado Disposal operates several recycling and e-waste buyback centers to which residents are encouraged to bring additional recyclables; the center nearest to the project site is located at 4421 Latrobe Road in the El Dorado Hills community. The CSD provides diversion reports, documenting compliance with its source reduction and recycling programs and the amount of waste disposed of or diverted to El Dorado County on a quarterly basis.

The large-scale recycling facility nearest to the project site is the Diamond Springs MRF, operated by El Dorado Disposal at 4100 Throwita Way in Diamond Springs. In addition to household recycling, the Diamond Springs MRF accepts a wide variety of waste materials, including mixed loose waste, clean wood waste, appliances, car bodies, and construction waste (lumber, concrete) (EDD 2023).

Hazardous waste in El Dorado County consists primarily of waste oil, old paint, and lead acid car batteries (El Dorado County 2014). Waste oil is collected at more than 21 public waste oil collection sites that are open 7 days a week. Other hazardous materials, such as old paint, car batteries, expired or banned pesticides or herbicides, and solvents, are collected through a cooperative arrangement with the El Dorado Hills Fire Department and the Diamond Springs MRF to operate a permanent collection facility for hazardous waste. In addition, all curbside solid waste is screened for hazardous waste (El Dorado County 2014). Analysis about hazards that may be generated from the project is presented in Section 3.8, "Hazards and Hazardous Materials."

ENERGY

The Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the El Dorado Hills community. It charges connection and user fees for all new developments, in addition to sliding rates for energy service based on use. Because many agencies in California have adopted policies seeking increased use of renewable resources (and have established minimum standards for the provision of energy generated by renewable resources), it is expected that PG&E would continue to meet future demand for energy through an increasing reliance on renewable resources, including small-scale sources, such as photovoltaic panels and wind turbines, in addition to larger-scale facilities, such as wind farms. Electrical capacity and projected uses are detailed in Section 3.5, "Energy."

Nearby electrical facilities include aboveground electrical power lines along Green Valley Road that extend to the Travois Subdivision in Cameron Park, which is approximately 2 miles away from the project site. Electrical facilities west of the project site and in the adjacent subdivisions are underground.

Natural gas infrastructure consists of a natural gas pipeline in Lima Way along the western boundary of the project site.

The El Dorado Hills CSD provides and manages a franchise agreement with Comcast Cable to provide cable television service to most areas within the El Dorado Hills CSD service area boundaries. AT&T cable is also provided to El Dorado Hills residents through a franchise managed by the state. The California Public Utilities Commission requires that telecommunications providers anticipate and serve new growth. To meet this requirement, these providers continually upgrade their facilities and infrastructure, adding new facilities and technology to remain in conformance with California Public Utilities Commission tariffs and regulations and to serve customer demand in the county. Telecommunication providers also work with the El Dorado Hills community to ensure that construction of new facilities does not interfere with any new or newly paved streets.

3.15.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Water Supply and Demand

EID's facility improvement letter and CTA Engineering and Surveying's off-site sewer and water improvement report detail water supply improvements required to serve the project. Residential baseline demand factors were developed using EID's UWMP, the water supply baseline was applied to the project, and EID service area demands were used to estimate project water demand to determine whether adequate supply exists. This analysis also evaluates the project's consistency with El Dorado LAFCO's policies related to its proposed annexation to EID for water service.

Wastewater Conveyance, Treatment, and Disposal

Impacts related to wastewater conveyance and treatment capacity were evaluated by estimating the project-generated increase in wastewater and determining whether the existing wastewater conveyance and treatment

infrastructure has adequate capacity to accommodate the increase in demand from the project. Wastewater flows for the project are based on the generation rates for wastewater provided by EID's 2020 UWMP and IWRMP, Hydrosience's letter of the evaluation of wastewater conveyance for the project, Youngdahl Consulting Group's Septic Feasibility Study, and CTA Engineering and Surveying's off-site sewer and water improvement report (CTA 2022). This analysis also evaluates the project's consistency with El Dorado LAFCO's policies related to its proposed annexation to EID for wastewater service.

Energy

Electricity

Impacts on electrical infrastructure were addressed by evaluating connection points near the project site and examining updates to nearby infrastructure required to adequately serve the project site. The reader is directed to Section 3.5, "Energy," for additional analysis of energy.

Natural Gas

Natural gas infrastructure impacts were evaluated by examining the connection point of the existing natural gas infrastructure adjacent to the project site, which consists of a pipeline along Lima Way west of the site. The reader is directed to Section 3.5, "Energy," for additional analysis of energy.

Solid Waste

CalRecycle and El Dorado Disposal data were used to determine the ability of the solid waste system to support growth in the region, including the project. The solid waste analysis uses the current capacities of the Diamond Springs MRF and Potrero Hills Landfill. To calculate the amount of solid waste that would be generated by the project, the number of residents for the project were estimated based on data from the US Census.

THRESHOLDS OF SIGNIFICANCE

A utilities and service systems impact would be significant if implementation of project would:

- ▶ require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects;
- ▶ have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- ▶ result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments;
- ▶ generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- ▶ fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.15-1: Cause Environmental Impacts from Construction of New Infrastructure

The project would include the construction of on-site and off-site infrastructure improvements that would result in significant environmental impacts. This impact would be **significant and unavoidable**.

As described in Chapter 2, "Project Description," the project would include the construction of on-site and off-site infrastructure improvements associated with drainage, water supply, wastewater conveyance, electrical distribution

facilities, and natural gas. As shown in Figure 2-10, off-site improvements would occur along Lima Way, Greenview Drive, Green Valley Road, Loch Way, Glenmore Way, Highland Drive, Sangiovese Drive, Aberdeen Lane, Appian Way, West Glenmore Way, and Silva Valley Parkway. Additionally, an alternative alignment for the off-site wastewater improvements is proposed to continue along Silva Valley Parkway instead of following the SMUD easement south of Appian Way. The impacts of these improvements are addressed as part of the project in the following impact discussions in this EIR. The reader is referred to Sections 3.1 through Section 3.17 for further details regarding these impacts.

- ▶ Impact 3.2-1: Construction air quality impacts. Implementation of Mitigation Measures 3.2-1a, 3.2-1b, 3.2-1c, and 3.2-1d would reduce this impact to a less-than-significant level.
- ▶ Impact 3.3-1: Archaeological resource impacts from construction. Implementation of Mitigation Measures 3.3-1a and 3.3-1b would reduce this impact to a less-than-significant level.
- ▶ Impact 3.4-1: Construction impacts on biological resources. Implementation of Mitigation Measure 3.4-1 would reduce this impact to a less-than-significant level.
- ▶ Impact 3.6-5: Paleontological resource impacts from construction. Implementation of Mitigation Measures 3.6-5a and 3.6-5b would reduce this impact to a less-than-significant level.
- ▶ Impact 3.7-1: Greenhouse gas emissions from construction of the project would be less than significant.
- ▶ Impact 3.8-1: Potential to release hazardous materials through routine use or a reasonably foreseeable accident. Implementation of Mitigation Measure 3.8-1 would reduce the potential for hazardous material to be released into the environment to a less-than-significant impact.
- ▶ Impact 3.11-1: Construction noise impacts. Implementation of Mitigation Measure 3.11-1 would assist in reducing this impact, but the impact would be significant and unavoidable.
- ▶ Impact 3.11-2: Exposure to generation of excessive vibration. Implementation of Mitigation Measure 3.11-2 would reduce the vibration from construction and its effect on sensitive receptors to a less-than-significant level.

As noted above, the construction of proposed off-site improvements would contribute to significant impacts related to air quality, archaeological resources, biological resources, geology and soils, paleontological resources, greenhouse gas emissions, hazardous materials, noise, and vibration. As such, impacts related to the construction of new infrastructure would be significant.

Mitigation Measures

As noted above, several mitigation measures (Mitigation Measures 3.2-1a, 3.2-1b, 3.2-1c, 3.2-1d, 3.3-1a, 3.3-1b, 3.4-1, 3.6-5a, 3.6-5b, 3.8-1, 3.11-1, and 3.11-2) would reduce impacts associated with construction, including that associated with off-site infrastructure. However, as noted in Section 3.11, "Noise," there are no additional, feasible mitigation measures to reduce Impact 3.11-1 due to the proximity of off-site receptors.

Significance After Mitigation

Similar to the conclusion for Impact 3.11-1, this impact is **significant and unavoidable** as a result of construction noise, following implementation of all feasible mitigation measures.

Impact 3.15-2: Have Sufficient Water Supplies

Water supplies from EID would be adequate to serve buildout of the project under average, dry, and multiple-dry years based on the EID 2022 Water Supply and Demand Report and the EID 2020 UWMP. This impact would be **less than significant**.

This water supply evaluation is based on information provided in the EID 2020 UWMP and considers secured and planned water supplies. As identified in Chapter 2, "Project Description," the project is located in EID's sphere of influence and proposes annexation to EID for water and wastewater service. Upon annexation, the project would be

located in EID's El Dorado Hills water supply region. The reader is referred to the discussion of Impact 3.15-1 and Chapter 2, "Project Description," regarding proposed water supply infrastructure improvements for the project.

Project construction activities are expected to involve the use of water primarily for dust control and other related activities. However, the use of water during construction would be temporary and would not exceed operational water demands described below.

EID reports that the project would require 387 EDUs (approximately 271 acre-feet) of water supply annually to accommodate the proposed residential uses, clubhouse, park site, and project site landscaping. The 2022 Water Supply and Demand Report provides updated calculations and reports that in 2022, approximately 16,910 EDUs of water supply were available in the El Dorado Hills water supply region (EID 2022a). Tables 3.15-2 through 3.15-4 provide a comparison of current and secured water supply (Central Valley Project Fazio Water of 7,500 afy would be available starting in 2035) from 2025 to 2045. Future water demands identified in these tables include the development of 7,050 new residential units between 2020 and 2045 in the El Dorado Hills water supply region. As identified in these tables, additional water supply above existing and anticipated water demands would be available to accommodate the project and additional growth in EID's service area through the 2045 as summarized below:

- ▶ normal year: 31,030–34,980 afy
- ▶ single dry year: 21,610–24,130 afy
- ▶ multiple dry years: 11,110–22,470 afy

Water supply projections in Tables 3.15-2 through 3.15-4 do not consider planned water associated with the El Dorado-Sacramento Municipal Utility District Cooperation Agreement (30,000 afy) or expansion of EID's current recycled water system capacity of 3,500 afy (EID 2021a). In addition, EID implements voluntary and mandatory measures to manage water supply during drought conditions of varying severity.

In addition to water supply availability, the project is located in EID's sphere of influence and would require annexation action by the El Dorado LAFCO to obtain domestic water service. The annexation of the site is a logical extension of the existing service area boundaries and would be contiguous to the existing services provided by EID. The project would be consistent with El Dorado LAFCO policies related to ensuring that water supply service capacity is adequate and that required improvements to meet the project's demand would not affect existing water services provided by EID or serve areas not planned for development (Policies 3.2.16, 3.3.2.2, 3.4.1, 3.9.7, 6.1.7, 6.2.1, 6.2.3, and 6.2.4).

Based on the EID 2022 Water Supply and Demand Report and the EID 2020 UWMP, water supply would be adequate to accommodate the project under normal-, dry-, and multiple-dry-year water conditions. Thus, the project would be consistent with General Plan Objective 5.1.2 and associated Policies 5.1.2.1 and 5.1.2.2 and Objective 5.2.1 and Policies 5.2.1.2, 5.2.1.3, 5.2.1.4, 5.2.1.11. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.15-3: Impacts on Available Wastewater Treatment Capacity

Implementing the project would create an additional 86,640 gallons of wastewater per day at buildout. This additional wastewater flow to the EDHWWTP could be accommodated in the plant's current permitted capacity of 4.0 mgd. This impact would be **less than significant**.

EID's EDHWWTP operates under WDRs and an NPDES permit issued by the Central Valley RWQCB. The WWTP is permitted to treat and discharge up to 4.0 mgd of ADWF of disinfected tertiary treated effluent to Carson Creek, and the permit contains specific numerical and narrative effluent limits for specific constituents. In 2021, ADWF at the EDHWWTP was 2.6 mgd.

Based on EID's Design Standards for wastewater generation rates, the 361 residential units that would be built under the project and connect to public sewer would generate an average of 240 gallons per day (gpd) per EDU, which

would create an ADFW of approximately 86,640 gpd, as shown in Table 3.15-5 (EID 2013). EID states that with the proposed off-site upgrades the project would adequately serve the wastewater needs it would create (EID 2022b). Of the 18 five-acre lots and the park site proposed as part of the project, eight 5-acre lots and the park site, would have on-site wastewater disposal systems and would not contribute to EID's public wastewater treatment system. General Plan Policy 5.3.1.7 states that all development in Community Regions shall connect to public wastewater systems or where public wastewater facilities do not exist applicants must demonstrate that the proposed wastewater system can accommodate the highest possible demand from the project. The reader is directed to Section 3.6, "Geology, Soils, and Paleontological Resources," for an evaluation of potential impacts of the operation of on-site wastewater disposal systems, compliance with Chapter 110.32. of the County Code of Ordinances for septic design, and an analysis of the proposed septic system capacities for the project. Wastewater that would be treated in the public EID system would be conveyed to the EDHWWTP using project-proposed wastewater improvements and associated EID facilities. The additional 89,040 gallons per day combined with a current ADWF of 2.6 mgd would be within the EDHWWTP permitted capacity of 4.0 mgd.

The constituents in the wastewater flow from the project to the EDHWWTP would be typical of residential uses and similar to flows from other residential development in El Dorado Hills and would not contain constituents that would cause permitted effluent limitations to be exceeded. Thus, the project would be consistent with General Plan Objective 5.1.2 and associated Policies 5.1.2.1 and 5.1.2.2 and Objective 5.3.1 and Policies 5.3.1.1 and 5.3.1.7.

The project site is located in EID's sphere of influence and would require annexation action by the El Dorado LAFCO to obtain wastewater service. The project would be consistent with El Dorado LAFCO policies related to ensuring that wastewater service capacity is adequate and that required improvements to meet the project's demand would not affect existing water services provided by EID or serve areas not planned for development (Policies 3.2.16, 3.3.2.2, 3.4.1, 3.9.7, 6.1.7, 6.2.1, 6.2.3, and 6.2.4). Therefore, this impact would be **less than significant**.

Table 3.15-5 Wastewater Demand under the Project

Land Use	Unit	Wastewater Generation Rate	Total Predicted Average Dry Weather Flow of Wastewater
Residential (Low)	10 dwelling units	240 gpd/EDU	2,400 gpd
Residential (High)	361 dwelling units	240 gpd/EDU	86,640 gpd
Recreation (Commercial)	7.3 acres	500 gpd/acre	NA
Total			89,040 gpd

Notes: Eight of the five-acre residential lots and the park site would have on-site wastewater disposal systems and would not require EID wastewater treatment.

gpd = gallons per day; gpd/acre = gallons per day per acre; gpd/EDU = gallons per day per equivalent dwelling unit; NA = not applicable.

Source: EID 2013.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.15-4: Impacts on Solid Waste Facility Capacity and Compliance with Regulations Related to Solid Waste

Implementing the project would increase the county's population and associated solid waste generation. County solid waste facilities and the Potrero Hills Landfill have capacity to accommodate the project. In addition, the project would be required to comply with and participate in the El Dorado Hills CSD's and County's solid waste handling and diversion programs, which would reduce the amount of waste disposed of at the landfill. This impact would be **less than significant**.

Project construction would temporarily generate construction waste. The County's existing Construction and Demolition Debris Diversion Ordinance requires project applicants and their construction contractors to reuse or

recycle a minimum of 50 percent of the construction and demolition debris. These requirements would remove the construction waste from the waste disposal streams and would not create transfer station or landfill capacity issues, which are discussed in more detail below.

Buildout of the project would result in 379 residential lots, which could accommodate between 854 to 1,077 residents. This population range is due to the consideration of the proposed age restricted lots (214) that are expected to generate fewer residents per residential unit. CalRecycle estimates a daily per-resident disposal rate of 6.7 pounds statewide (CalRecycle 2023). At this rate, approximately 3.3 tons per day would be generated upon buildout of the project using the higher range of the population projection. This waste would be collected by El Dorado Disposal, transferred through the Diamond Springs MFR, and then delivered to the Potrero Hills Landfill. El Dorado County's Solid Waste Management Plan states that the County is in compliance with AB 939's waste diversion requirements and that the El Dorado Hills CSD disposed of 3.8 pounds per day per resident day in 2009, below the statewide average (El Dorado County 2012). The Diamond Springs MFR, which is used to transfer landfill and recycled materials to larger facilities, uses less than one-quarter of its processing capacity per day and would be able to accommodate the construction and daily waste generated by the project (ICF 2022). The landfill waste would then be transferred to the Potrero Hills Landfill. The Potrero Hills Landfill's daily permitted capacity is 4,330 tons per day, and the current average daily disposal rate is 2,700 tons per day (CalRecycle 2024). The estimated closure date for the Potrero Hills Landfill is 2062 (ICF 2022). The project would produce less than one-half of 1 percent of the 2,700-ton current daily throughput for the facility. This small increase in solid waste would not consume a substantial proportion of the available permitted capacity and would not trigger the need to expand the Potrero Hills Landfill. Thus, the project would be consistent with General Plan Objective 5.1.2 and associated Policies 5.1.2.1 and 5.1.2.2 and Objective 5.5.2 and Policy 5.5.2.1.

With the implementation of SB 1383 (2016), El Dorado Disposal now offers biweekly organic waste collection services to residents. As the program gains popularity and as residents become more familiar with it, more waste would be diverted from the landfill per capita. With increasing green waste diversions, the estimations of the project's contribution of less than one-half of 1 percent of the Potrero Hills Landfill's daily throughput become more conservative. Organic waste collection would reduce the amount of waste contributed to the Potrero Hills Landfill.

The project would be required to comply with federal, state, and local statutes and regulations related to solid waste and solid waste reduction plans. These statutes and regulations include those discussed in Section 3.15.1, "Regulatory Setting." Furthermore, El Dorado County requires developers to reuse or recycle a minimum of 50 percent of construction and demolition debris. These requirements would be enforced during construction and operation through the issuance of permits and the mandatory requirement that all solid waste be collected by a refuse collector, such as El Dorado Disposal.

Based on the analysis above, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

3.16 TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the project on known and unknown (undiscovered or unidentified) Tribal cultural resources. Tribal cultural resources, as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code (PRC) Section 21074, are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a Tribe. A Tribal cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein) associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

Comments received on the Notice of Preparation (NOP) regarding tribal cultural resources included concerns regarding tribal sites lost as a result of constructing the project. These comments are addressed where appropriate throughout this section. The NOP and comments submitted in response to it are included in Appendix A.

3.16.1 Regulatory Setting

FEDERAL

There are no federal regulations that apply.

STATE

California Register of Historical Resources

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

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

The CRHR uses four evaluation criteria:

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

Similar to the NRHP, a historical resource must meet one of the above criteria and retain integrity to be listed in the CRHR. The CRHR uses the same seven aspects of integrity used by the NRHP: location, design, setting, materials, workmanship, feeling, and associations.

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on “[T]ribal cultural resources.” PRC Section 21084.2 establishes that “[a] project with an effect that may cause a substantial adverse change in the significance of a [T]ribal cultural resource is a project that may have a significant effect on the environment.” PRC Section 21074 states:

- a) “Tribal cultural resources” are either of the following:
 - 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:
 - A) Included or determined to be eligible for inclusion in the CRHR.
 - B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
 - 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.
- b) A cultural landscape that meets the criteria of subdivision (a) is a Tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a Tribal cultural resource if it conforms with the criteria of subdivision (a).

AB 52, signed by the California Governor in September of 2014, established a new class of resources under CEQA: “[T]ribal cultural resources,” defined in PRC Section 21074. Pursuant to CEQA requirements, lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation before the release of an EIR, negative declaration, or mitigated negative declaration. CEQA Sections 21080.3.1 and 21080.3.2 state that within 14 days of determining that a project application is complete, or to undertake a project, the lead agency must provide formal notification, in writing, to the tribes that have requested notification of proposed projects in the lead agency’s jurisdiction. If it wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. The lead agency must begin the consultation process with the tribes that have requested consultation within 30 days of receiving the request for consultation. Consultation concludes when either (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

Health and Safety Code, Section 7050.5

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

California Native American Historical, Cultural, and Sacred Sites Act

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

Public Resource Code Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of Native American human burials falls within the jurisdiction of the NAHC. Section 5097.5 of the Code states the following:

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

LOCAL

El Dorado County General Plan

The following cultural resources–related objectives and policies from the El Dorado County General Plan are relevant to the project:

- ▶ **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:
 - 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.
 - A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.
 - Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.
 - A definition of cultural resources that are significant to the County. This definition shall conform to (but not necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) and Society of Vertebrate Paleontology.
 - Formulation of project review guidelines for all development projects.
 - Development of a cultural resources sensitivity map of the County.
 - **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.

3.16.2 Environmental Setting

TRIBES

The project site lies squarely in the territory occupied in aboriginal and historic times by the Nisenan, or Southern Maidu. Their territory extended to the Bear River and south of the South or Middle Fork of the Cosumnes River. Nisenan, a Penutian language, can be divided into three main dialects, Northern Hill Nisenan, Southern Hill Nisenan, and Valley Nisenan (HRA 2021: 9).

The Nisenan had names for every mountain, hill, flat, valley, canyon, spring, creek, and river. Villages normally derived their name from prominent features of the immediate landscape, from important local vegetation, and sometimes from a mythical or local celebrity. When the inhabitants of a village moved to another location, the new settlement assumed a name different from that of the old settlement (HRA 2021: 9).

The chief political unit for the Nisenan was the tribelet, which consisted of a principal, permanent village surrounded by several secondary villages and seasonal camps. The population of the tribelet varied from 15–25 people to more than 500. Its headman served as advisor to the people of the tribelet. The position was usually hereditary. The permanent village was usually found in the Foothill Belt or the lower Yellow Pine Belt, at an elevation of 1,000–4,000 feet. Winter village locations are typically found on knolls or in valleys with good southern exposure and adjacent to springs or other permanent sources of water. Typical 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 (HRA 2021: 9).

In the area of the western slope of the Sierra, the territory of the foothill Nisenan crosses many plant communities, making available to them a wide variety of plant resources. The main food source for the Nisenan was acorns, although a wide variety of other resources were also used. Tan bark oak (*Lithocarpus densiflora*) and black oak (*Quercus kelloggii*) were preferred, with golden oak (*Quercus chrysolepis*), interior live oak (*Quercus wislizenii*), and scrub oak (*Quercus dumosa*) considered secondary food sources. Extended families or entire villages would gather acorns. Trespassing into an owned gathering area was discouraged. Acorns were cracked, shelled, and ground into flour in a mortar. They were then leached in sand and cooked in baskets using heated stones. 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, were available on the project site (HRA 2021: 9).

CONTEMPORARY NATIVE AMERICAN SETTING

As archaeologists routinely focus on traditional Native American lifeways and ignore current and vibrant Native American culture, a sufficient context or set of values maintained by the current Native American community related to their history and the landscape is often ignored. To help remedy this, a discussion of the contemporary Native American setting is also included here.

The Shingle Springs Band of Miwok Indians is a federally recognized tribe located in El Dorado County. The members of the Shingle Springs Band of Miwok Indians are descendants of the Miwok and Southern Maidu “Nisenan” Indians who thrived in California’s fertile central valley for thousands of years before contact with Europeans (Shingle Springs 2023).

In 1916, while conducting a census of Indian people, an agent of the US Department of the Interior discovered Indians living along the Sacramento River. The federal government called these native peoples the “Sacramento-Verona Band of Homeless Indians” and set about acquiring land for them. That land is known as the Shingle Springs Rancheria, just off present-day US 50. In 1970, the tribe formally organized under their Articles of Association and set up home sites on the rancheria. In 1976, the tribe’s Articles of Association were approved by the Secretary of the Interior (Shingle Springs 2023).

Under the Articles of Association, the ultimate authority of the tribe rests with its general membership. An elected Tribal Council governs the tribe, and a tribal chairperson carries out the day-to-day operations. The Tribal Council is responsible for all government functions (legislative, judicial, and executive), and the chairperson has general authority when the council is not in session. Since the adoption of the tribe’s Articles of Association, the tribe has sought to honor and protect its territory and cultural heritage to benefit future generations (Shingle Springs 2023).

On the journey to economic self-sufficiency, the tribe faced major obstacles. In particular, the 1965 realignment of US 50 landlocked the rancheria. From 1965 until 2008, the only access to the rancheria was by a narrow, winding rural road. The severe restriction on access to the rancheria proved a major impediment to the economic growth of the tribe. In 2008, after years of struggle and litigation, the tribe celebrated the opening of a newly constructed overpass that provides access to the rancheria via US 50. The rancheria has changed significantly from its humble beginnings

and today is a bustling, vibrant community. The tribe is financially independent and has diverse enterprises and programs, including, most notably, Red Hawk Casino, the Shingle Springs Health & Wellness Center, and the Tribal Temporary Assistance for Needy Families Program. Its Business Development Board is dedicated to developing other enterprises for the tribe's long-term sustainability (Shingle Springs 2023).

The Shingle Springs Band of Miwok Indians is deeply committed to sustaining and improving the quality of life in El Dorado County. This guiding principle is a responsibility and a privilege of the tribe as it strives to make a meaningful difference in the lives of its members, employees, and patrons, as well as the citizens and guests of El Dorado County (Shingle Springs 2023).

The project is subject to the provisions of CEQA Assembly Bill 52 (AB 52), which requires outreach to Native American Tribes. Pursuant to AB 52, the County solicited input from Native American organizations and representatives listed with the Native American Heritage Commission to identify cultural resources and properties of concern to the Native American community. At the time of the initial review consultation, seven Tribes requested to be notified of proposed projects in El Dorado County: Lone Band of Miwok Indians, Nashville-El Dorado Miwok, Shingle Springs Band of Miwok Indians, Tsi Akim Maidu, United Auburn Indian Community (UAIC), Washoe Tribe of Nevada and California, and Wilton Rancheria. These Tribes were notified of the proposed project by certified mail on January 23, 2024. The Shingle Springs Band of Miwok Indians responded within 30 days to initiate consultation. Staff provided the Tribe with the Cultural Resources Study and Updated Cultural Resources Study prepared by Historic Resources Associates. A site visit was conducted on April 29, 2024. On May 9, 2024, the United Auburn Indian Community of the Auburn Rancheria (UAIC) provided a response to the County that they are deferring AB 52 Consultation to the Shingle Springs Band of Miwok Indians and will support their recommendations. On May 15, 2024, the Shingle Springs Band of Miwok Indians provided an email to the County stating that they do not have any further comments at this time.

RECORDS SEARCHES AND CONSULTATION

Records Search

On October 18, 2021, a records search of the project site and the area within 0.25 mile of the site was conducted at the North Central Information Center, at California State University, Sacramento (HRA 2021). In addition, on December 19, 2023, an updated records search was conducted to address the potential off-site improvement areas and minor adjustments to the project boundaries (HRA 2024).

Sacred Lands File Search

NAHC was contacted to request a search of its Sacred Lands file (SFL), and negative results were returned on November 13, 2023. A negative result does not indicate that there are no sacred sites on the project site; it indicates only that no tribes have reported the presence of sacred sites on the project site to NAHC. No SFL request was submitted for the off-site improvement areas. However, sacred sites could still be identified by a tribe during the AB 52 consultation process.

P-9-5445

This multicomponent archaeological site includes a partial fieldstone dry-laid corral or holding area for livestock (Refer to Section 3.2 "Cultural Resources" for further information about the dry-laid corral) and a rock outcrop. Approximately 35 meters northwest of the northernmost wall is a rock outcrop containing two partially developed shallow cups. No artifactual materials, such as groundstone, flakes, or fire-fractured rock, were identified on the surface associated with the rock outcrop. The rock outcrop was not evaluated for the NRHP or CRHR because the project, as currently designed, would not develop the area where this feature is located, and it will be left as open space. However, HRA recommended that the rock outcrop be treated as a resource under CEQA.

Tribal Consultation

As previously stated in Section 3.3.1, "Regulatory Setting," AB 52 applies to those projects for which a lead agency issues a notice of preparation of an EIR or notice of intent to adopt a negative declaration or mitigated negative

declaration on or after July 1, 2015. On January 23, 2024, in compliance with AB 52 requirements, the County sent notification letters to the following seven California Native American tribal representatives:

- ▶ Wilton Rancheria, Jesus Tarango, Chairperson
- ▶ Lone Band of Miwok Indians; Sara D. Setshwaelo, Chairperson
- ▶ Nashville Enterprise Miwok-Maidu-Nishinam Tribe; Mr. Cosme Valdez, Chairperson
- ▶ Shingle Springs Band of Miwok Indians (Shingle Springs); Regina Cuellar, Chairperson
- ▶ Tsi Akim Maidu; Mr. Don Ryberg, Chairperson
- ▶ United Auburn Indian Community of the Auburn Rancheria; Gene Whitehouse, Chairperson
- ▶ Washoe Tribe of Nevada and California; Darrel Cruz, Cultural Resources Department

On February 14, 2024, Shingle Springs Band of Miwok Indians responded to the County's notification letter and requested consultation. On April 29, 2024, a site visit was conducted with Shingle Springs Band of Miwok Indians. On May 9, 2024, United Auburn Indian Community of the Auburn Rancheria responded, and deferred to Shingle Springs, as the project site is more closely in Shingle Springs' region. On May 15, 2024, the Shingle Springs Band of Miwok Indians Tribe responded that they have no comments at this time, but have requested additional meetings with County staff. No responses were received from the other five tribes.

TRIBAL CULTURAL RESOURCES

No tribal cultural resources have been identified during the AB 52 consultation process.

3.16.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Information related to Tribal cultural resources is based on findings reported in the NAHC SFL database search, the records search results from the archaeological investigation (HRA 2021; HRA 2024), the results of Native American consultation under AB 52. The analysis is also informed by the provisions and requirements of State and local laws and regulations that apply to cultural resources.

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

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, the project would result in a potentially significant impact on Tribal cultural resources if it 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.

ISSUES NOT DISCUSSED FURTHER

All potential Tribal cultural resources impacts are evaluated below.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.16-1: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource

Tribal consultation under AB 52 has not resulted in the identification of tribal cultural resources on the project site. However, excavation activities associated with project construction may disturb or destroy previously undiscovered significant subsurface tribal cultural resources. This impact would be **potentially significant**.

The SFL search did not indicate the presence of indigenous sacred sites within the project site. As detailed above, the County sent AB 52 notification letters to six tribal representatives. Consultation with the responding tribes has not resulted in the identification of any tribal cultural resources as defined by PRC Section 21074. The rock outcrop, P-55-5445, identified as part of the records search was not identified as a tribal cultural resource. However, HRA recommended that the rock outcrop be treated as a resource under CEQA and protective measures were developed in Section 3.3, "Archaeological and Historical Resources" (see Mitigation Measure 3.3-1c).

Ground-disturbing activities during project construction could uncover previously unknown tribal cultural resources. These activities could damage or destroy tribal cultural resources. This is a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.16-1: Protect Previously Undiscovered Tribal Cultural Resources

Implement Mitigation Measure 3.3-1b.

Mitigation Measure 3.16-1b: Establish a Buffer for P-55-5445's Rock Outcrop

Implement Mitigation Measure 3.3-1c.

Significance after Mitigation

Implementation of Mitigation Measure 3.16-1a and 3.16-1b would reduce the proposed project's impact to a **less than significant** level by requiring the performance of professionally accepted and legally compliant procedures in the event of a discovery, as well as the protection of any previously undocumented significant archaeological resources and establishing protective fencing around P-55-5445's rock outcrop.

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3.17 WILDFIRE AND EVACUATION

This section evaluates potential effects related to wildfire that could result from implementation of the project based on the Generations at Green Valley Wildland Urban Interface Fire Protection Plan provided in Appendix J. The section includes a description of existing wildfire hazard conditions, relevant fire prevention policies and regulations, and a discussion of potential impacts that could result from the project.

Comments received on the Notice of Preparation (NOP) regarding wildfire included concerns that the project could exacerbate fire risk, project-generated traffic volumes on local roadways could impair emergency response and emergency evacuation, and whether there is adequate emergency water supply. These comments are addressed where appropriate throughout this section. The NOP and comments submitted in response to the NOP are included in Appendix A.

3.17.1 Regulatory Setting

INTERNATIONAL BUILDING CODE

In January of 2008, California officially switched from the Uniform Building Code to the International Building Code. The International Building Code specifies construction standards to be used in urban interface and wildland areas where there is an elevated threat of fire.

FEDERAL

There are no federal regulations regarding wildfire that pertain to the project.

STATE

California Department of Forestry and Fire Protection

California Department of Forestry and Fire Protection (CAL FIRE) protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens. CAL Fire is dedicated to the fire protection and stewardship of over 31 million acres of the state's privately-owned wildlands and provides emergency services in 36 of the state's 58 counties via contracts with local governments. California Public Resources Code (PRC) Section 4291 gives CAL FIRE the authority to enforce 100 feet of defensible space around all buildings and structures on non-federal State Responsible Area (SRA) lands, or non-federal forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material. PRC Sections 4790 through 4799.04 provide the regulatory authority for CAL FIRE to administer the California Forest Improvement Program. PRC 4113 and 4125 give CAL FIRE the responsibility for preventing and extinguishing wildland fires in the SRA (PRC Sections 4113 and 4125).

Board of Forestry and Fire Protection

The Board of Forestry and Fire Protection (Board) is a Governor-appointed body within CAL FIRE. It is responsible for developing the general forest policy of the state, determining the guidance policies of CAL FIRE, and representing the state's interest in federal forestland in California. Together, the Board and CAL FIRE work to carry out the California Legislature's mandate to protect and enhance the state's unique forest and wildland resources.

The Board is charged with developing policy to protect all wildland forest resources in California that are not under federal jurisdiction. These resources include major commercial and non-commercial stands of timber, areas reserved for parks and recreation, woodlands, brush-range watersheds, and all private and state lands that contribute to California's forest resource wealth. In addition, the Board is responsible for identifying Very High Fire Hazard Severity Zone (FHSZ) in the SRA and Local Responsible Area (LRA). Local agencies are required to designate, by ordinance,

Very High FHSZ and to require landowners to reduce fire hazards adjacent to occupied buildings within these zones (Government Code Sections 51179 and 51182). The intent of identifying areas with very high fire hazards is to allow CAL FIRE and local agencies to develop and implement measures that would reduce the loss of life and property from uncontrolled wildfires (Government Code Section 51176).

PRC Sections 4114 and 4130 authorize the Board to establish a fire plan (the 2018 Strategic Fire Plan for California), which, among other things, determines the levels of statewide fire protection services for SRA lands.

2018 Strategic Fire Plan

The 2018 Strategic Fire Plan for California is the state's road map for reducing the risk of wildfire. The plan aims to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The primary goals of the plan are summarized as follows (CAL FIRE 2018):

- ▶ Improve the availability and use of consistent, shared information on hazard and risk assessment;
- ▶ Promote the role of local planning processes, including general plans, new development, and existing developments, and recognized individual landowner/homeowner responsibilities;
- ▶ Fosters a shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans;
- ▶ Increase awareness and actions to improve fire resistance of man-made assets at risk and fire resilience of wildland environments through natural resource management;
- ▶ Integrate implementation of fire and vegetative fuels management practices consistent with the priorities of landowners or managers;
- ▶ Determine and seek the needed level of resources for fire prevention, natural resource management, fire suppression, and related services; and
- ▶ Implement needed assessments and actions for post-fire protection and recovery.

Emergency Services Act

Under the Emergency Services Act, Government Code Section 8550, et seq., the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving wildfire and other natural and/or human-caused incidents is an important part of the plan, which is administered by the Governor's Office of Emergency Services (OES). The office coordinates the responses of other agencies, including the California Environmental Protection Agency (CalEPA), the California Highway Patrol (CHP), regional water quality control boards, air quality management districts, and county disaster response offices.

California Government Code Section 66474.02

Section 66474.02 requires that counties make findings approving a tentative subdivision map or tentative parcel for areas located in the SRA or LRA Very High FHSZ that the subdivision is consistent with PRC Section 4290 and 4291 or consistent with local ordinances certified by the State Board of Forestry and Fire Protection as meeting or exceeding the state regulations.

California Public Resources Code

CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors (PRC sections 4201-4204; Government Code sections 51175-51189). Factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. CAL FIRE has identified two types of wildland fire risk areas: (1) wildland areas that may contain substantial forest fire risks and hazards; and (2) very high fire hazard risk zones.

PRC section 4291 gives CAL FIRE the authority to enforce 100 feet of defensible space around all buildings and structures on SRA lands. PRC sections 4790 through 4799.04 provide the regulatory authority for CAL FIRE to administer the California Forest Improvement Program. PRC sections 4113 and 4125 give CAL FIRE the responsibility to

prevent and extinguish wildland fires in SRAs. The PRC also includes fire safety statutes that restrict the use of equipment that may produce a spark, flame, or fire; requires the use of spark arrestors on construction equipment with internal combustion engines; specifies requirements for the safe use of gasoline-powered tools in fire hazard areas; and specifies fire suppression equipment that must be provided for various types of work in fire-prone areas.

New development located in SRAs are subject to the following requirements:

- ▶ Determination that new subdivisions are consistent with regulations adopted by the State Board of Forestry and Fire Protection pursuant to PRC sections 4290 and 4291 or are consistent with local ordinances certified by the State Board of Forestry and Fire Protection as meeting or exceeding the state regulations (CCR, title 14, section 1266.01)
- ▶ Defensible space of 100 feet around all buildings and structures (PRC section 4291; CCR, title 14, section 1299.03)
- ▶ Provision of adequate emergency access and egress (PRC sections 4290 and 4291; CCR, title 14, sections 1273.01–1273.09)
- ▶ Emergency water requirements (CCR, title 14, sections 1275.01–1275.04)
- ▶ Building Siting, Setbacks, and Fuel Modification (PRC 4290 and 4291; CCR, title 14, sections 1276.01-1276.03)
- ▶ Building signing and number requirements (PRC sections 4290 and 4291; CCR, title 14, sections 1274.01-1274.04)

California Fire Code

The 2022 California Fire Code (CCR, title 24, Part 9) establishes the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare for the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of this code apply to construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of buildings or structures or any appurtenances connected or attached to such building structures throughout California.

California Building Code

CCR, title 24, Part 2, section 701A.3 (“New Buildings Located in Any Fire Hazard Severity Zone”) requires that new buildings located in any Fire Hazard Severity Zone within SRAs, any local agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted, shall comply with all the requirements of Chapter 7A.

The following specific alternative material and construction methods, exceeding the minimum criteria described in CBC Chapter 7A, shall be implemented to meet the “Practical Effect” principles described in CCR Title 14 – Section 1276.01 when buildings are located within 30-feet of property lines to reduce the potential for building-to-building fire spread may include, but are not limited to, the following provisions:

- ▶ Block any spaces between roof decking and the Class A roof covering to prevent embers from catching and igniting the building;
- ▶ Eaves shall be enclosed on the underside with non-combustible material, ignition-resistant material, or minimum two (2) inch lumber;
- ▶ Exterior walls shall be constructed with non-combustible building materials such as stucco, fiber cement, stone, or brick, and comply with CCR Title 24, Part 2, Chapter 7A, Section 707A;
- ▶ Use WUI ember and flame-resistant vents, conforming with the requirements described in ASTM E2886, to protect exterior wall openings when the wall is located within 30-feet of another building or faces the Wildland Fuel Reduction Zone areas. Dryer vents shall be metal and equipped with a louver or flap;
- ▶ Exterior windows, skylights, glazed doors, and glazed openings within exterior doors shall be multi-paned with at least two (2) tempered panes, minimum twenty (20) minute fire rated, or fire-resistant glass block units. Shutters installed over windows shall be non-combustible;

- ▶ Areas under first floor bay windows shall be enclosed with non-combustible walls;
- ▶ Exterior doors of buildings shall be non-combustible, or have a non-combustible exterior storm door, and comply with CCR Title 24, Part 2, Chapter 7A, Section 708A;
- ▶ A minimum non-combustible area of 6 vertical inches, measured from the ground up (at grade) and from any attached horizontal surface like a deck, shall be provided on the exterior of all buildings. Non-combustible materials can include brick, stone, fiber-cement siding, or concrete;
- ▶ Fencing materials located within 5-feet of a building shall be constructed of non-combustible materials. Areas located between 0-feet and 5-feet from all buildings shall remain non-combustible. Back-to-back, combustible fencing shall be separated by a minimum of five (5) feet;
- ▶ Landscape materials and other vegetation located within 0'-100' of dwellings shall comply with the fire-resistant standards of El Dorado Hills Fire Department (EDHFD) and CAL FIRE;
- ▶ Accessory and miscellaneous structures, as defined in the CBC, located within the reduced fire setback zone shall comply with this plan and CCR Title 24, Part 2, Chapter 7A, Section 710A;
- ▶ Decks, including posts, joists, railing, stairs, and walking surfaces, shall be non-combustible and comply with CCR Title 24, Part 2, Chapter 7A, Section 709A;
- ▶ Projections shall be non-combustible, ignition resistant, or one (1) hour fire-rated in accordance with IWUIC, Section 503.2, and/or NFPA 1144, Section 5.2; and
- ▶ Gutters and downspouts shall be of non-combustible material. Gutters shall be provided with a non-combustible leaf guard.

LOCAL

El Dorado County General Plan

The County General Plan Public Services and Utilities Element (El Dorado County 2015) and Public Health, Safety, and Noise Element (El Dorado County 2024) include the relevant wildfire hazard and evacuation objectives and policies that are applicable to the topic and project. The reader is also referred to Section 3.13, "Public Services and Recreation," for applicable policies related to fire protection service provision and standards for service.

Public Services and Utilities Element

- ▶ **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 5.7.4: Medical Emergency Services.** Adequate medical emergency services available to serve existing and new development recognizing that levels of service may differ between Community Regions, and Rural Centers and Regions.
 - **Policy 5.7.4.1:** Prior to approval of new development, the applicant shall be required to demonstrate that adequate medical emergency services are available and that adequate emergency vehicle access will be provided concurrent with development.
 - **Policy 5.7.4.2:** Prior to approval of new development, the Emergency Medical Services Agency 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.

Public Health, Safety, and Noise Element

- ▶ **Objective 6.1.1: Implement the El Dorado County Multi-Jurisdictional 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 regularly 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.
- ▶ **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 (CAL FIRE), 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 (FHSZ) Maps.
 - **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)

- ▶ **Objective 6.2.3: Adequate Fire Protection.** Application of uniform fire protection standards to development projects by fire districts.
 - **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 firefighting 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 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 tracking 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 Prevention 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, and local FPDs, and other local fire agencies in fire prevention education programs.
- ▶ **Objective 6.11.1: Evacuation Route Identification.** Identify and analyze emergency evacuation routes and areas without at least two evacuation routes.
 - **Policy 6.11.1.1:** Continue to improve transportation corridors that support effective evacuation routes and access for the public and emergency responders by identifying residential developments in hazard areas that do not have at least two emergency evacuation routes and work with affected residents to help prepare them to anticipate their evacuation alternatives (e.g., public transit, carpooling, shelter in place).
- ▶ **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.
 - **Policy 6.11.2.4:** Continue to coordinate with the County Sheriff's Department, CAL FIRE, local FPDs, and other fire agencies to identify, assess, and maintain evacuation routes to support the adequate capacity, safety, and viability of those routes under a range of emergency scenarios. Identify designated evacuation routes that are not compliant with Fire Safe Regulations (14 CCR Section 1270.00) for roadway standards and develop a plan to bring those roads into conformance to promote adequate and safe accessibility in communities.

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, wildlife, 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 from 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 State Responsibility Areas. The future design and construction of structures, subdivisions, and developments in the State Responsibility Areas 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 Wildland Urban Interface 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 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 Hills Fire Department

Ordinance 2022-01

The El Dorado Hills Fire Department has adopted the 2022 California Fire Code (CFC) with several local amendments which are more restrictive than those described in the CFC. The El Dorado Hills Fire Department 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
- ▶ 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

3.17.2 Environmental Setting

WILDFIRE

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. It is estimated that since 1985, more than 50 percent of the increase in the area burned by wildfire in the western U.S. is attributable to anthropogenic climate change (Abatzoglou and Williams 2016). As climate change persists, it will 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 (Balch et al. 2017).

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.

WILDLAND URBAN INTERFACE

Throughout California, communities are increasingly concerned about wildfire safety as increased development in the foothills and mountain areas and subsequent fire control practices have affected the natural cycle of the ecosystem. While wildfire risk is predominantly associated with wildland urban interface (WUI) areas, significant wildfires can also occur in heavily populated areas. The WUI is a general term that applies to development adjacent to landscapes that support wildland fire. The WUI describes those communities that are mixed in with grass, brush and timbered covered lands (wildland). These are areas where wildland fire once burned only vegetation but now burns homes as well. The WUI for El Dorado County consists of communities at risk as well as the area around the communities that pose a fire threat (El Dorado County 2018).

There are two types of WUI environments. 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. This profile makes access, structure protection, and fire control difficult as fire can freely run through the community (El Dorado County 2018).

WILDFIRES IN EL DORADO COUNTY

Wildland fires affect grass, forest, and brush lands, as well as any structures located within them. 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 the 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 (El Dorado County 2018).

More than 10 fire incidents have occurred in the county since 2020 based on a search of California Department of Forestry and Fire Protection's (CAL FIRE's) fire incident database (Table 3.16-1).

Table 3.17-1 Fire Incidents in the El Dorado County Since 2020

Incident	Date Started	Acres Affected
Mosquito Fire	9/6/2022	76,788 (including Placer County)
Cable Fire	7/26/2022	20
Caldor Fire	8/14/2021	221,835 (including Alpine, Amador)
Steins Fire	6/26/2021	11
Equestrian Fire	6/16/2021	10
Settlers Fire	5/19/2021	45
Salmon Fire	5/1/2021	32
Cameron Fire	10/18/2020	15
Fork Fire	9/8/2020	No information available
Murphy Fire	8/17/2020	14
Sophia Fire	8/2/2020	36
Brandon Fire	7/7/2020	32
Cronan Fire	6/9/2020	29

Source: (CAL FIRE 2023)

The following wildfire events have occurred near the project site since 1997 (Phillips Consulting Services 2024):

- ▶ Hickok Fire (6/26/1997): 776 acres
- ▶ Ethel Fire (7/6/2001): 10 acres
- ▶ Hickok Fire (8/30/2002): 294 acres

As indicated in Table 3.17-1, wildfire generally occurs in the county between May and October. It could be due to the high fuel load and long, dry summers the County has been experiencing. Fires will continue to occur on an annual basis in El Dorado County. The threat of wildfire and potential losses are constantly increasing as human development and population increase and the WUI areas expand (El Dorado County 2018).

PROJECT SITE CONDITIONS

The project site is largely undeveloped and consists of grassland vegetation, oak woodlands and scattered oak trees, onsite ponds/creek, and wetland features (see Figure 2-1). The topography of the site is varied, with elevations ranging from approximately 960 feet to 1,235 feet above mean sea level. The center of the site is generally higher in elevation and relatively flat compared to the periphery of the site. Slopes range from flat to greater than 40 percent, with the majority of the site having a less than 10 percent slope.

The project site is located within a High FHSZ in a SRA for fire management. The closest Very High FHSZ is located approximately 0.5 mile north of the project site, in the Hickok and Deer Valley communities. The project site is also located within a designated WUI community identified by the Federal Government as being at risk from a large wildfire due to fire behavior potential and values at risk (Phillips Consulting Services 2024).

3.17.3 Impact Analysis and Mitigation Measures

METHODOLOGY

The impact analysis is based on technical analysis and proposed measures included in the project-specific fire protection and evacuation plan, Generations at Green Valley WUI Fire Protection Plan. The Generations at Green Valley WUI Fire Protection Plan is herein defined as Fire Safe Plan or FSP (Appendix J). The FSP addresses potential impacts resulting from wildland fire hazards and identifies measures necessary to mitigate these hazards in conformance with CCR Title 14, Sections 1270 through 1276 (Fire Safe Regulations), CCR Title 24, Part 9, Section 4903 (Plans), El Dorado County Fire Protection Standard W-002 (Wildland Interface Fire Protection Plans), and El Dorado County General Plan Policy 6.2.2.2. The FSP addresses water supply, access, structural ignitability and ignition resistive building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, vegetation management, and evacuation. This plan identifies fuel modification/management zones and recommends the types and methods of treatment that will protect this project and its essential infrastructure. In addition, this FSP recommends enhanced fire protection measures that the project HOA, and individual property owners would take to reduce the probability of structural ignition during the occupancy phase of the project.

In addition, the FSP Chapter 5 and associated Appendix L address evacuation, specifically FSP Appendix L consists of the Generations at Green Valley Wildfire Evacuation Study (WES) prepared for the project by DKS Associates (DKS 2024). The WES was prepared per the guidance provided by CAL FIRE, El Dorado Hills Fire Department, and the El Dorado County Sheriff's Office of Emergency Services (OES). The objective of the WES is to identify evacuation routes for the project and determine if there are significant impacts in the ability to safely evacuate the project occupants and/or if the project has a significant impact on the ability of the surrounding community to concurrently evacuate during a larger area wildfire evacuation scenario. Significant impacts are determined through an assessment of evacuation time estimates (ETEs) to clear evacuation trips from the evacuation zones and if vehicle evacuation traffic is impeded from exiting the evacuation zones at the end of the wildfire scenario period. The WES used a Dynamic Traffic Assignment simulation model using PTV VISUM software to capture all elements of a wildfire evacuation. The roadway network in the model includes all streets within the project site with key attributes, including the number of lanes, posted speed limits, intersection control (including stop signs, signal timing, and yield signs), and facility capacity. The model for purposes of wildfire evacuation assumes 40 percent capacity reduction of the traffic network as a conservative approach to account for a variety of non-typical conditions and events that may impact evacuation traffic flows, such as reduced visibility from wildfire smoke, and vehicles slowing due to responding emergency vehicles. The following provides a summary of the methodology of the evacuation analysis. The WES is contained within the FSP in Appendix J of the Draft EIR.

The wildfire scenario and associated planning and modeling created for the project are designed to require significant activation of evacuation routes, resources, and location. The wildfire scenario parameters are based on three conditions associate with the project that can be pre-planned for during the evacuation planning efforts: 1) fire hazard severity zone; 2) prior large fire history in the area; and 3) hazardous vegetation types present in the area

within the surrounding the project. To stress the evacuation analysis the following worse case wildfire scenario factors were assumed in the FSP:

- ▶ The fire scenario in the WES evacuation model was assumed to originate north of the project site in the general vicinity of Hickok Road, burning south toward the project site.
- ▶ The fire was assumed to occur on a Saturday between 2:00 p.m. and 4:00 p.m. in October.
- ▶ The weather conditions present at the time included Dry Bulb Temperatures between 70 and 90 degrees Fahrenheit, relative humidity between 10 and 14 percent, midflame wind speeds of 30 miles per hour from the north, and live fuel moisture of 50 percent.
- ▶ The predominant fuel type found in the area is Chaparral (Fuel Model 4).
- ▶ Average topographical slopes in the area are between 0 (flat) to 20 percent (mild).

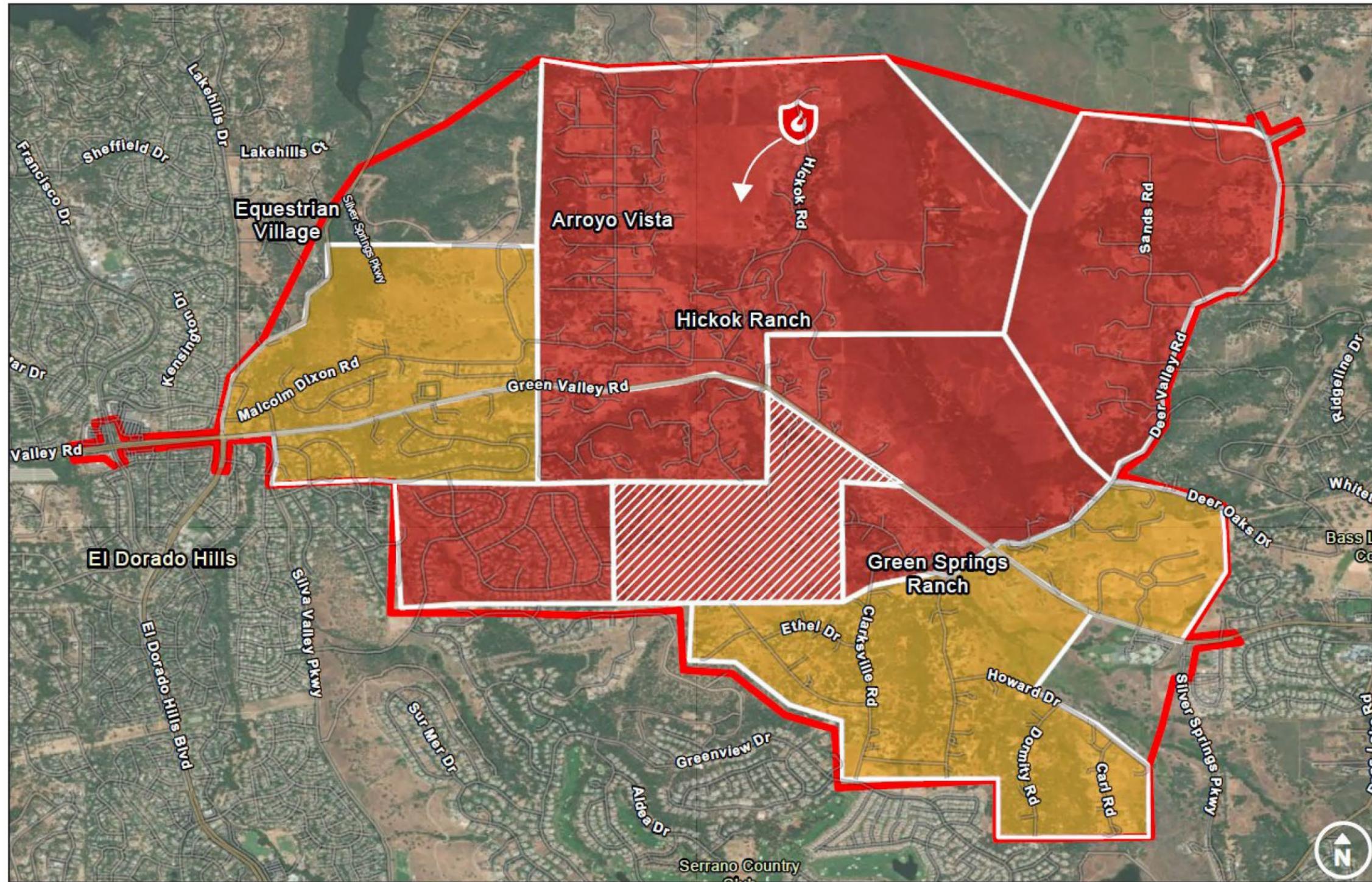
This wildfire scenario was evaluated considering a fast and moderate rate of fire spread: 45-minute evacuation and 60-minute evacuation after issuance of an evacuation order. The 45-minute evacuation scenario was modeled that all evacuation trips depart the evacuation zone or warning zone within 45 minutes of the evacuation order. The 60-minute evacuation scenario was modeled that all evacuation depart the evacuation zone or warning zone within 60 minutes of the evacuation order. Departure time distributions were informed by the 2024 Greater Placerville Wildfire Evacuation Preparedness Study that developed distributions with input from El Dorado County Fire, CAL FIRE, and El Dorado County Sheriff's OES. The departure time distributions for this WES were adapted to use 5-minute intervals, rather than 15-minute to account for the shorter overall evacuation periods for these wildfire scenarios. Based on the fire origin, season, time of day, and direction of spread parameters, the El Dorado County Sheriff's OES determined the boundaries of the evacuation zone and warning zone evaluated in the WES as shown in Figure 3.17-1.¹

The evacuation demand is determined by residential household data in evacuation and warning zones. US Census data on households without vehicles, those with one vehicle, and those with multiple vehicles is used to estimate demand. Households with no vehicle access generate zero evacuation trips as those households are anticipated to evacuate with neighbors or emergency personnel. Households with one vehicle generate one trip per household. For all other households, the value of 1.75 vehicles evacuating per household was used, except for the 55-year-old plus (55+) properties within the project site, where a value of 1.5 vehicles evacuating per household was used. Population within the warning zones may also voluntarily evacuate during the evacuation order, further adding to background traffic and congestion. Twenty five percent of the household trips were assumed to voluntarily evacuate during the evacuation order based on guidance from OES. All evacuation trips were assigned evacuation destination directions along key routes leaving the project site to represent ultimate evacuation downstream, such as shelters and neighboring towns. The following destinations have been identified for the WES evacuation model:

- ▶ Green Valley Road east of Francisco Drive
- ▶ El Dorado Hills Boulevard south of Green Valley Road
- ▶ Silva Valley Parkway south of Green Valley Road
- ▶ Green Valley Road east of Silver Springs Parkway
- ▶ Silver Springs Parkway south of Green Valley Road
- ▶ Deer Valley Road east of Kanaka Valley Road

Each evacuation and warning zone has an assigned trip distribution percentage to one or more of the above destinations.

¹ Evacuation zones define the area of mandatory evacuation for all individuals through the issue of an Evacuation Order. Warning zones are areas near the evacuation zones that are provided alert notification that a potential wildfire incident may require people to leave the area. Warning zone typically generate voluntary evacuation trips that add to the warning zone evacuation demand.



LEGEND

- WARNING ZONE
- EVACUATION ZONE
- GENERATIONS SITE
- FIRE ORIGIN
- TRAFFIC EVACUATION ANALYSIS AREA

20230058.01 GRX 030

Source: Image prepared and provided by DKS Associates, 2024.

Figure 3.17-1 Evacuation Assessment Study Area

Traffic control measures were assumed to be in place by emergency responders following an initial response lag time to assist in the evacuation process by restricting background traffic from entering the evacuation area. The traffic control locations are:

- ▶ East Traffic Control Point: Westbound Green Valley Road is closed to all traffic except emergency response and livestock evacuation support vehicles.
- ▶ West Traffic Control Point: Eastbound Green Valley Road is closed to all traffic except emergency response and livestock evacuation support vehicles.

It was assumed that these two traffic control closures for background traffic are in place 20-minutes after the start of the Evacuation Order.

The evacuation model included full transportation network inside the warning zones, evacuation zones, and critical junctions to evacuation destination. The network includes all streets and junction controls, including stop signs, yield signs, traffic signals and any emergency traffic control elements.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are based on wildfire and evacuation issues identified in Appendix G of the State CEQA Guidelines, Section IX (Hazards and Hazardous Materials) and XX (Wildfire). If located in or near SRAs or lands classified as Very High FHSZs, the project would result in a significant impact related to wildfire if it would:

- ▶ substantially impair implementation of or physically interfere with 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, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, or
- ▶ 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.

ISSUES NOT EVALUATED FURTHER

All issues are evaluated below.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.17-1: Physically Interfere with or Substantially Impair an Adopted Emergency Response Plan or Emergency Evacuation Plan

The project would include circulation improvements and development of an emergency access/egress at Lima Way to serve as a secondary means of emergency access and evacuation, and two emergency vehicle access road connections in addition to proposed access to Green Valley Road. The project-specific WES concluded that implementation of the project is not anticipated to create substantial traffic congestion and time delays that extends into the evacuation zone and would not impede clearing within the evacuation zone. However, the El Dorado County Sheriff's Office has identified the need for special traffic signal operations during an evacuation to improve traffic flow along the Green Valley Road corridor. This impact would be **significant**.

The project and surrounding vicinity are subject to a number of emergency response plans, most notably the El Dorado County LHMP, which provides guidance for the County's response in emergency situations, including wildfire and emergency evacuation. Impairment of emergency response plans or emergency evacuation plans would occur if the project would introduce an undue or extraordinary burden on emergency responders as they respond to an emergency incident. For example, project placement or design that could preclude access by emergency responders or the orderly evacuation of a site in the event of a wildfire incident. Undersized roadways, underrated bridges and culverts, steep grades, remoteness, and inadequate points of ingress and egress to and from a site are examples of the difficulties that firefighters can experience when responding to a wildfire. Responding to a wildfire incident under these types of scenarios would result in an inordinate expenditure of personnel and equipment resources during a wildfire incident and/or an evacuation, which can be particularly problematic when those resources are also needed elsewhere during a large-scale and rapidly unfolding wildfire incident.

In the case of the proposed project, the project applicant has committed to specific project design features that would help to avoid these types of constraints. As described in Chapter 2, "Project Description," and shown in Figure 2-6, the project would implement circulation improvements, including development of a "loop" roadway system. Access to the project site would consist of two new roadway connections to Green Valley Road associated with the proposed C-Drive and A-Drive. The project would also include an emergency access/egress (EAE) at Lima Way in the Highland View residential community (Highland View) to serve as a secondary means of emergency access and evacuation that would be gated but designed to be accessible by project residents during an evacuation order. There would also be two emergency vehicle access (EVA) road connections at Marden Drive and at East Green Springs Road (to the south) that would be stubbed to the property line for potential emergency vehicle use. East Green Springs Road would need to be extended off-site for approximately 50 feet to connect to the project's EVA at the property line. This connection to Green Springs Ranch would only occur if the Green Springs Ranch Association chooses to complete the extension in the future and at their discretion. These accesses would meet the design standards for gated developments as described in Section 130.30.090(D) of the El Dorado County Code of Ordinances and the El Dorado Hills Fire Department Ordinance 2022-01. The gates would also comply with all design and operation criteria included in Section D103.5 of El Dorado Hills Fire Department Ordinance 2022-01. The provision of multiple evacuation points is consistent with emergency vehicle and evacuation access provisions of General Plan Policy 6.2.3.2.

El Dorado County Sheriff's OES's primary method of alerting communities to evacuate is going door to door in the evacuation zones. Secondary, the El Dorado County Sheriff's OES uses an electronic alert system powered by Rave to contact the community in the event of an emergency such as evacuations due to wildfires, hazardous material spill, or urgent law enforcement operations. Residents signed up with the Rave would be notified through phone call, text message, or email during emergency evacuation. In addition, El Dorado County Sheriff's OES acquired Perimeter Platform to bolster emergency operations and improve communication channels with the public during critical situations. The Perimeter Map serves as a centralized hub for essential information during crises, particularly wildfires. The map shows evacuation zones, routes, road closures, and shelter locations.

As part of the evaluation of the project's impact on potential evacuation activities in the area, the El Dorado County Sheriff's OES has requested that the WES consider both the 45- and 60-minute evacuation scenarios to be evaluated each with just the two access points to Green Valley Road and with both the Green Valley Road access and the Lima Way EAE. Therefore, the WES conducted for the project considered the following evacuation scenarios:

- ▶ Scenario 1: 60-minute evacuation without project
- ▶ Scenario 2: 60-minute evacuation with project and no Lima Way access
- ▶ Scenario 3: 60-minute evacuation with project and Lima Way access
- ▶ Scenario 4: 45-minute evacuation without project.
- ▶ Scenario 5: 45-minute evacuation with project and no Lima Way access
- ▶ Scenario 6: 45-minute evacuation with project and Lima Way access

Under the “Lima Way access” scenarios, 30 percent of the total evacuation demand from the project is assumed to use the Lima Way EAE to Aberdeen Lane and Appian Way via Lima Way to access southbound Silva Valley Parkway. During this scenario, 100 percent of the Highland View evacuation zone is also evacuating concurrently via Appian Way. The Lima Way EAE would be designed to allow one-way emergency public evacuation access via an automated gate. This EAE connection also provides emergency evacuation access egress from the Highland View neighborhood through the project development with manual intervention by emergency services, thereby providing an additional evacuation route to benefit the Highland View and surrounding neighborhoods.

Utilizing the methodology summarized in the “Analysis Methodology” above, the WES estimated the evacuation time from the six evacuation scenarios to reach the evacuation designations. Figure 3.17-2 shows the evacuation designations and trip distribution percentage for each designation. The results of the WES are summarized below for each scenario.

60-Minute Evacuation Scenarios

Scenario 1

- ▶ Arroyo Vista area evacuation trips evacuate west using Malcom Dixon Road directly to Green Valley Road using the Malcom Dixon Cutoff or continue west to Salmon Falls Road. Other evacuation and warning zones access Green Valley Road or Deer Valley Road directly using local streets based on evacuation designation directions shown on Figure 3.17-2.
- ▶ The peak evacuation trip demand occurs between 40 and 50 minutes after the start of the evacuation order.
- ▶ During the peak evacuation time interval, it takes an average of 5.9 minutes and a maximum of 6.9 minutes to clear the analysis area departing from Highland View.
- ▶ During the peak evacuation time interval, it takes an average of 8.2 minutes and a maximum of 14.9 minutes to clear all other evacuation zones.
- ▶ 40 minutes after the start of the evacuation order, 66 percent of Highland View has evacuated the analysis area and 59 percent of all other evacuation trips have evacuated the same area.
- ▶ 60 minutes after the start of the evacuation order, 98 percent of Highland View has evacuated the analysis area and 96 percent of all other evacuation trips have evacuated the same area.
- ▶ 70 minutes after the start of the evacuation order 100 percent of all trips have cleared the evacuation zone.
- ▶ The westbound evacuation queue on Green Valley Road from the Silva Valley Parkway traffic signal is the longest at approximately 0.1 miles 10 minutes after the evacuation order (The evacuation zone boundary is 0.9 miles from the traffic signal).
- ▶ The eastbound evacuation queue on Green Valley Road from the Silver Springs Parkway traffic signal is minimal throughout the Evacuation Order (The evacuation zone boundary is 0.75 miles from the traffic signal).
- ▶ All downstream traffic congestion bottlenecks do not extend into the evacuation zone and do not impede evacuation within the evacuation zone.

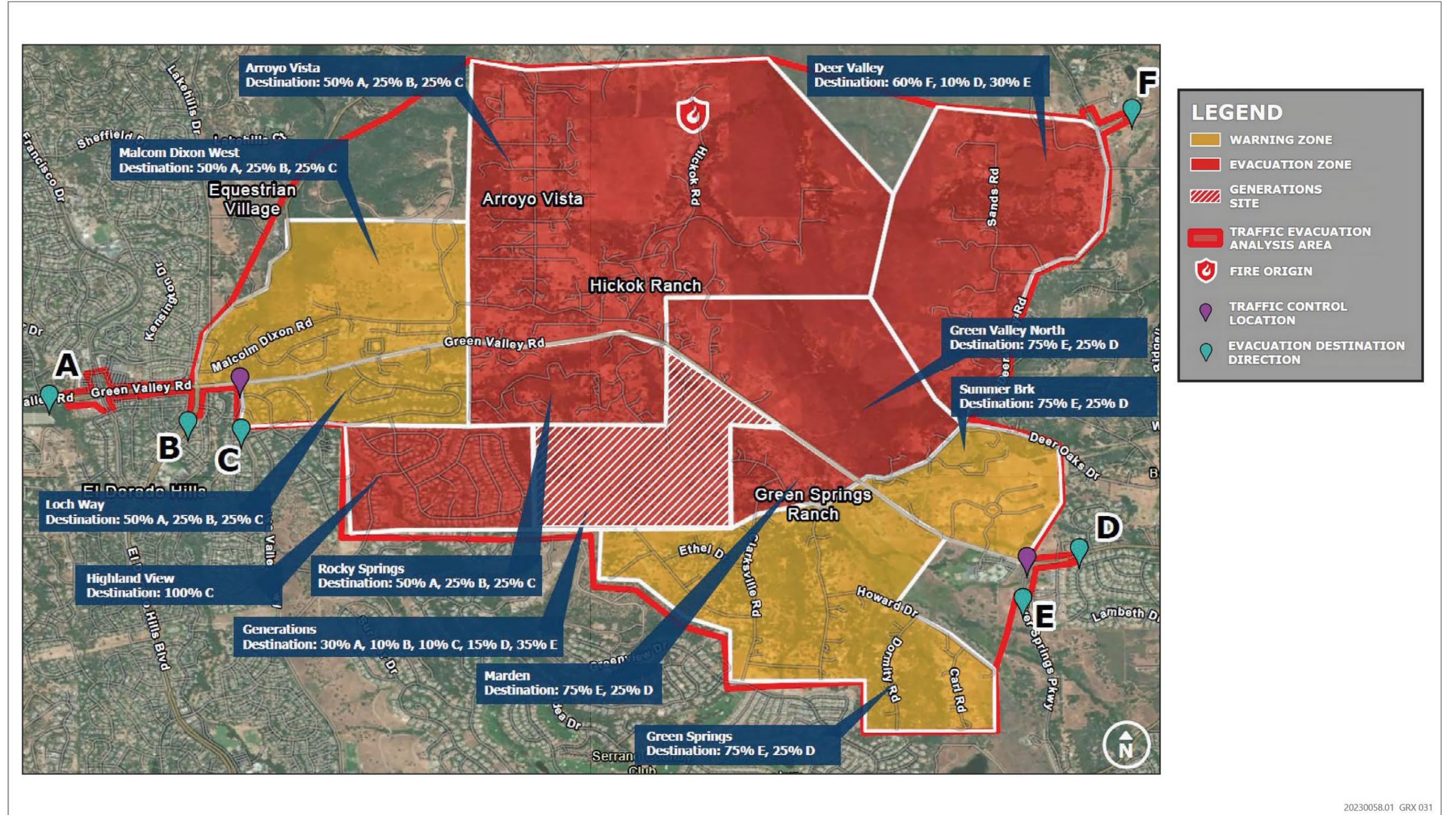
Scenario 2

- ▶ Arroyo Vista area evacuation trips evacuate west using Malcom Dixon Road directly to Green Valley Road using the Malcom Dixon Cutoff or continue west to Salmon Falls Road. Other evacuation and warning zones access Green Valley Road or Deer Valley Road directly using local streets based on the evacuation designation directions shown on Figure 3.17-2.
- ▶ The peak evacuation trip demand occurs between 40 and 50 minutes after the start of the evacuation order.
- ▶ During the peak evacuation time interval, it takes an average of 6.1 minutes and a maximum of 7.2 minutes to clear the analysis area from all other evacuation zones.

- ▶ These parameters for Highland View are relatively unchanged for the same period between the project and no project scenarios. For all other evacuation zones, both the average travel time and maximum travel time increases by approximately one minute.
- ▶ 40 minutes after the start of the evacuation order, 56 percent of the project residents have evacuated the analysis area, 66 percent of Highland View, and 58 percent of all other evacuation trips have also evacuated the area.
- ▶ 60 minutes after the start of the evacuation order, 95 percent of the project residents have evacuated the analysis area, 98 percent of Highland View, and 96 percent of all other evacuation trips have evacuated the area.
- ▶ 70 minutes after the start of the evacuation order 100 percent of all trips have cleared the evacuation zone, including the project.
- ▶ The construction of the project has minimal impact on the ability of the surrounding area to evacuate within this evacuation scenario.
- ▶ The westbound evacuation queue on Green Valley Road from the Silva Valley Parkway traffic signal extends approximately 0.3 miles at 50 minutes after the evacuation order (The evacuation zone boundary is 0.9 miles from the traffic signal)
- ▶ The eastbound evacuation queue on Green Valley Road from the Silver Springs Parkway traffic signal is minimal throughout the evacuation.
- ▶ The southbound evacuation queue exiting the project A-Drive from the Green Valley Road traffic signal extends approximately 0.1 miles 20 minutes after the evacuation order.
- ▶ All downstream traffic congestion bottlenecks do not extend into the evacuation zone and do not impede evacuation within the evacuation zone.
- ▶ clear the analysis area departing from Highland View.

Scenario 3

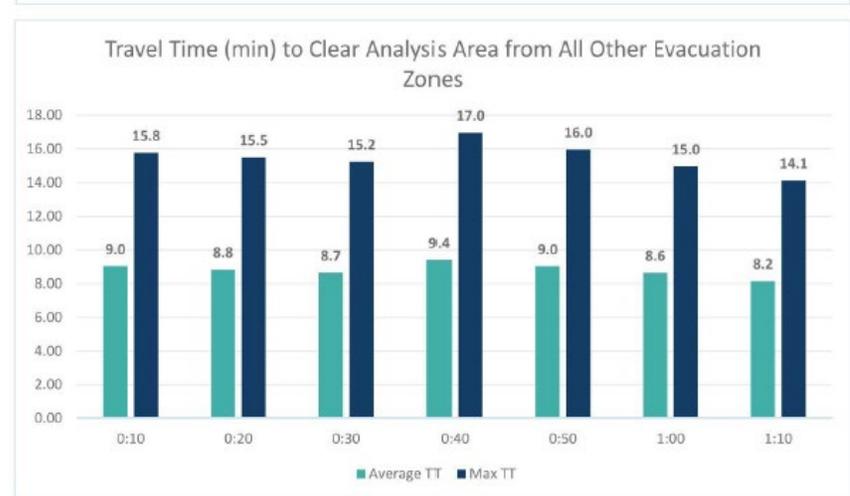
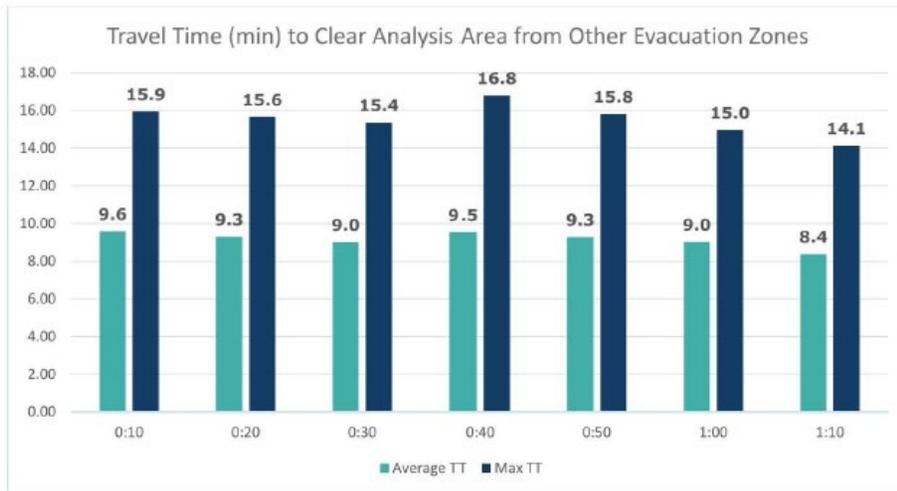
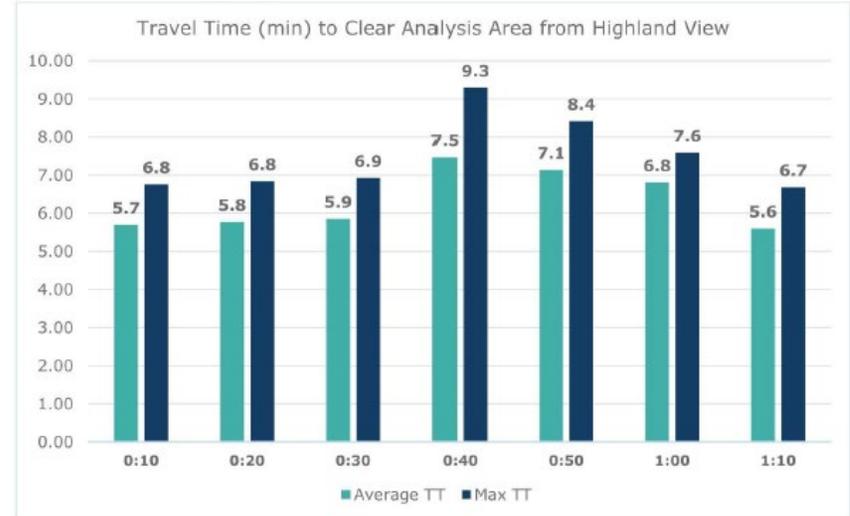
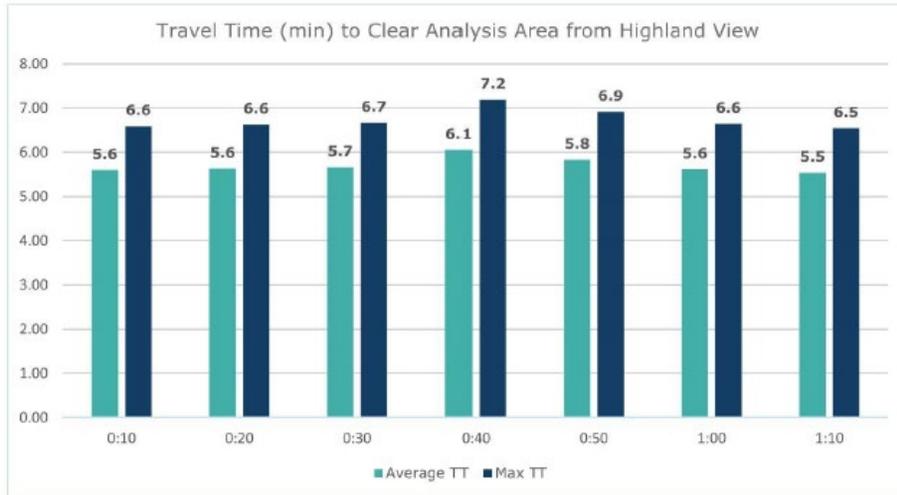
- ▶ Arroyo Vista area evacuation trips evacuate west using Malcom Dixon Road directly to Green Valley Road using the Malcom Dixon Cutoff or continue west to Salmon Falls Road. Other evacuation and warning zones access Green Valley Road or Deer Valley Road directly using local streets based on the evacuation designation directions shown on Figure 3.17-2.
- ▶ The peak evacuation trip demand occurs between 40 and 50 minutes after the start of the evacuation order the same as Scenario 2.
- ▶ During the peak evacuation time interval, it takes an average of 9.2 minutes and a maximum of 14 minutes to clear the evacuation zone departing from the project.
- ▶ During the peak evacuation time interval, it takes an average of 7.5 minutes and a maximum of 9.3 minutes to clear the evacuation zone from Highland View (compared to an average of 6.1 minutes and a maximum of 7.2 minutes under Scenario 2) and an average of 9.4 minutes and a maximum of 17 minutes to clear all other evacuation zones (compared to an average of 9.5 minutes and a maximum of 17 minutes under Scenario 2). A comparison of average and maximum travel times between Scenarios 2 and 3 for Highland View and all other evacuation zones is shown in Figure 3.17-3.
- ▶ 40 minutes after the start of the evacuation order, 60 percent of the project residents have evacuated the analysis area, 66 percent of Highland View, and 58 percent of all other evacuation trips have also evacuated the area.
- ▶ 60 minutes after the start of the evacuation order, 96 percent of the project residents have evacuated the analysis area, 98 percent of Highland View, and 96 percent of all other evacuation trips have evacuated the area.
- ▶ 70 minutes after the start of the evacuation order 100 percent of all trips have cleared the evacuation zone, including the project.



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Source: Image prepared and provided by DKS Associates, 2024.

Figure 3.17-2 Evacuation Trip Distribution



Scenario 2 with Project and No Lima Way Access

Scenario 3 with Project and Lima Way Access

Source: Image prepared and provided by DKS Associates, 2024, adapted by Ascent in 2024.

Figure 3.17-3 Comparison of Travel Time to Clear Analysis Area Between Scenarios 2 and 3

- ▶ As shown in Figure 3.17-3, the project residents' ability to evacuate via Lima Way would not significantly change travel time for the Highland View neighborhood and all other evacuation zones to clear the analysis area. In addition, 100 percent of all trips have cleared the evacuation zones 70 minutes after the start of the evacuation order under both Scenarios 2 and 3. Therefore, the construction of the project and its ability to access Lima Way for evacuation purposes has minimal impact on the ability of the surrounding area to evacuate within this evacuation scenario.
- ▶ The westbound evacuation queue on Green Valley Road from the Silva Valley Parkway traffic signal extends approximately 0.2 miles at 50 minutes after the evacuation order (The evacuation zone boundary is 0.9 miles from the traffic signal)
- ▶ The eastbound evacuation queue on Green Valley Road from the Silver Springs Parkway traffic signal is minimal throughout the evacuation.
- ▶ The northbound evacuation queue exiting the project A-Drive from the Green Valley Road traffic signal extends approximately 0.1 miles 20 minutes after the evacuation order.
- ▶ All downstream traffic congestion bottlenecks do not extend into the evacuation zone and do not impede evacuation within the evacuation zone.

45-Minute Evacuation Scenarios

Scenario 4

- ▶ Arroyo Vista area evacuation trips evacuate west using Malcom Dixon Road directly to Green Valley Road using the Malcom Dixon Cutoff or continue west to Salmon Falls Road. Other evacuation and warning zones access Green Valley Road or Deer Valley Road directly using local streets based on the evacuation designation directions shown on Figure 3.17-2.
- ▶ The peak evacuation trip demand occurs between 20 and 25 minutes after the start of the evacuation order.
- ▶ During the peak evacuation time interval, it takes an average of 6.4 minutes and a maximum of 7.6 minutes to clear the analysis area departing from Highland View.
- ▶ During the peak evacuation time interval, it takes an average of 8.8 minutes and a maximum of 15.4 minutes to clear the analysis area from all other evacuation zones.
- ▶ 30 minutes after the start of the evacuation order, 70 percent of Highland View has evacuated the analysis area and 61 percent of all other evacuation trips have evacuated the same area.
- ▶ 45 minutes after the start of the evacuation order, 98 percent of Highland View has evacuated the analysis area and 93 percent of all other evacuation trips have evacuated the same area.
- ▶ 55 minutes after the start of the evacuation order 100 percent of all trips have cleared the evacuation zone.
- ▶ The westbound evacuation queue on Green Valley Road from the Silva Valley Parkway traffic signal is the longest at approximately 0.2 miles 20 minutes after the Evacuation Order (The evacuation zone boundary is 0.9 miles from the traffic signal).
- ▶ The eastbound evacuation queue on Green Valley Road from the Silver Springs Parkway traffic signal is minimal throughout the Evacuation Order (The evacuation zone boundary is 0.75 miles from the traffic signal).
- ▶ All downstream traffic congestion bottlenecks do not extend into the evacuation zone and do not impede evacuation within the evacuation zone.

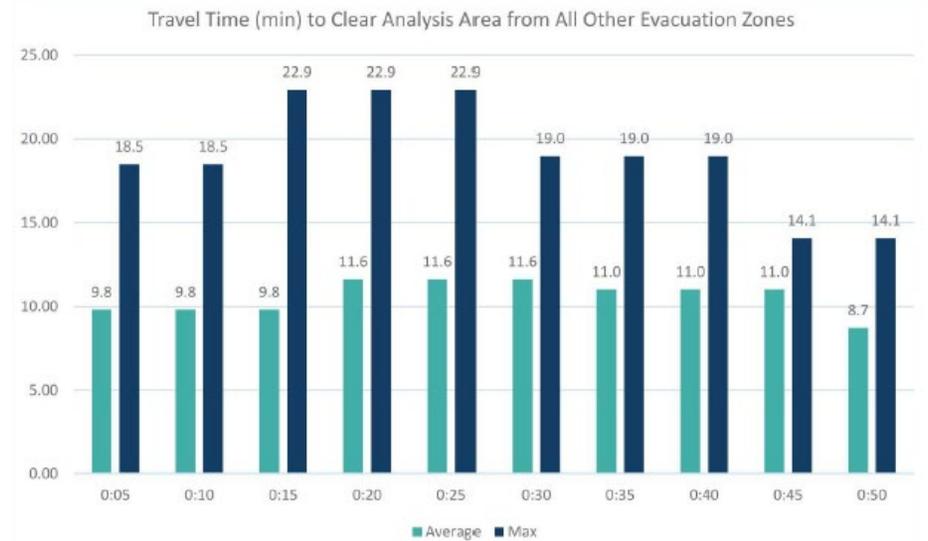
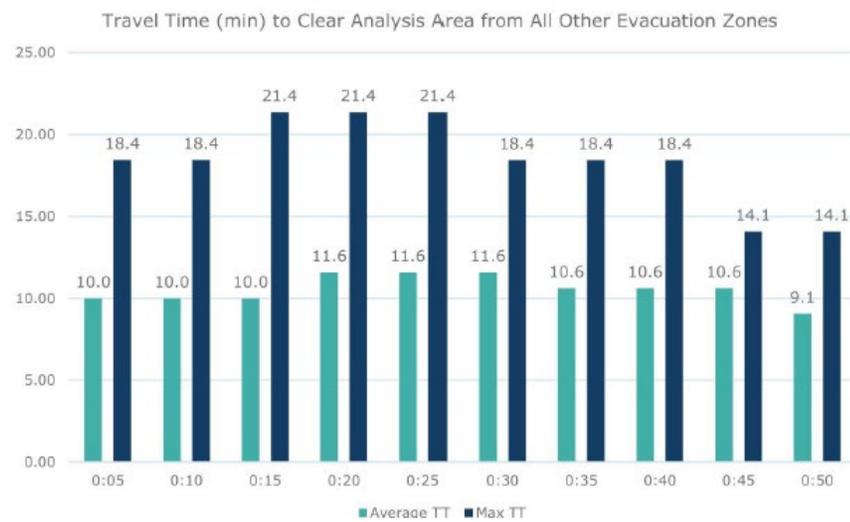
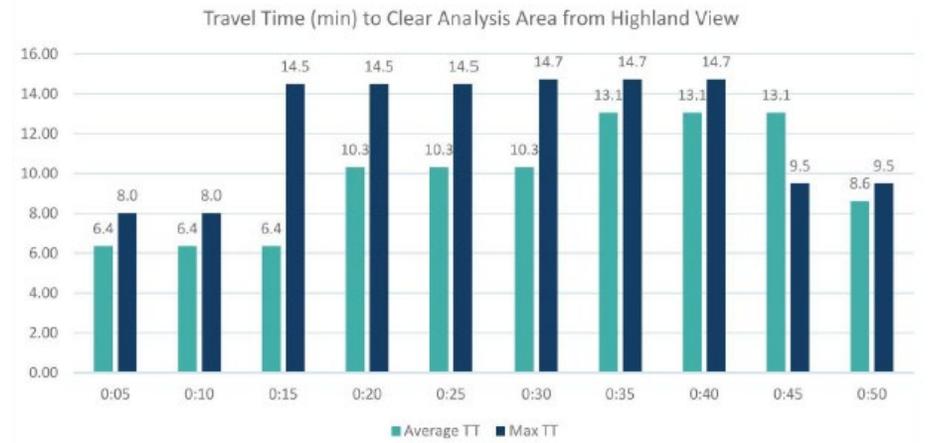
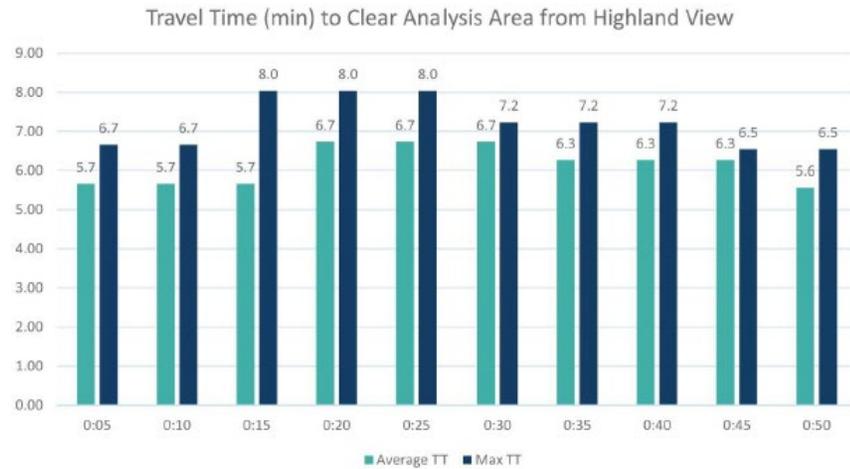
Scenario 5

- ▶ Arroyo Vista area evacuation trips evacuate west using Malcom Dixon Road directly to Green Valley Road using the Malcom Dixon Cutoff or continue west to Salmon Falls Road. Other evacuation and warning zones access Green Valley Road or Deer Valley Road directly using local streets based on the evacuation designation directions shown on Figure 3.17-2.

- ▶ The peak evacuation trip demand occurs between 20 and 25 minutes after the start of the evacuation order.
- ▶ During the peak evacuation time interval, it takes an average of 13.5 minutes and a maximum of 19 minutes to clear the analysis area departing from the project.
- ▶ During the peak evacuation time interval, it takes an average of 6.7 minutes and a maximum of 8 minutes to clear the analysis area departing from Highland View.
- ▶ During the peak evacuation time interval, it takes an average of 11.6 minutes and a maximum of 21 minutes to clear the analysis area from all other evacuation zones.
- ▶ 30 minutes after the start of the evacuation order, 55 percent of the project residents and 70 percent of Highland View have evacuated the analysis area and 61 percent of all other evacuation trips have evacuated the same area.
- ▶ 45 minutes after the start of the evacuation order, 91 percent of the project residents and 98 percent of Highland View have evacuated the analysis area and 93 percent of all other evacuation trips have evacuated the same area.
- ▶ 55 minutes after the start of the evacuation order 100 percent of all trips have cleared the evacuation zone.
- ▶ The westbound evacuation queue on Green Valley Road from the Silva Valley Parkway traffic signal is the longest at approximately 0.8 miles 35 minutes after the evacuation order (The evacuation zone boundary is 0.9 miles from the traffic signal).
- ▶ The eastbound evacuation queue on Green Valley Road from the Silver Springs Parkway traffic signal is approximately 0.3 miles 30 minutes after the evacuation order throughout the evacuation order (The evacuation zone boundary is 0.75 miles from the traffic signal).
- ▶ The southbound queue exiting the project A-Drive is around 0.25 miles long 30 minutes after the evacuation order.
- ▶ All downstream traffic congestion bottlenecks do not extend into the evacuation zone and do not impede evacuation within the evacuation zone.

Scenario 6

- ▶ Arroyo Vista area evacuation trips evacuate west using Malcom Dixon Road directly to Green Valley Road using the Malcom Dixon Cutoff or continue west to Salmon Falls Road. Other evacuation and warning zones access Green Valley Road or Deer Valley Road directly using local streets based on the evacuation designation directions shown on Figure 3.17-2.
- ▶ The peak evacuation trip demand occurs between 20 and 25 minutes after the start of the evacuation order.
- ▶ During the peak evacuation time interval, it takes an average of 11.7 minutes and a maximum of 17.4 minutes to clear the analysis area departing from the project.
- ▶ During the peak evacuation time interval, it takes an average of 10.3 minutes and a maximum of 14.5 minutes to clear the analysis area departing from Highland View (compared to an average of 6.7 minutes and a maximum of 8 minutes under Scenario 5) and an average of 11.6 minutes and a maximum of 22.9 minutes to clear the analysis area from all other evacuation zones (compared to an average of 11.6 minutes and a maximum of 21.4 minutes under Scenario 5). A comparison of average and maximum travel times between Scenarios 5 and 6 for Highland View and all other evacuation zones is shown in Figure 3.17-4.
- ▶ 30 minutes after the start of the evacuation order, 61 percent of the project residents and 67 percent of Highland View have evacuated the analysis area and 61 percent of all other evacuation trips have evacuated the same area.
- ▶ 45 minutes after the start of the evacuation order, 94 percent of the project residents and 97 percent of Highland View have evacuated the analysis area and 93 percent of all other evacuation trips have evacuated the same area.
- ▶ 55 minutes after the start of the evacuation order 100 percent of all trips have cleared the evacuation zone.



Scenario 5 with Project and No Lima Way Access

Scenario 6 with Project and Lima Way Access

Source: Image prepared and provided by DKS Associates, 2024, adapted by Ascent in 2024.

Figure 3.17-4 Comparison of Travel Time to Clear Analysis Area Between Scenarios 5 and 6

- ▶ The westbound evacuation queue on Green Valley Road from the Silva Valley Parkway traffic signal is the longest at approximately 0.5 miles 30 minutes after the evacuation order (The evacuation zone boundary is 0.9 miles from the traffic signal).
- ▶ The eastbound evacuation queue on Green Valley Road from the Silver Springs Parkway traffic signal is approximately 0.3 miles 30 minutes after the evacuation order (The evacuation zone boundary is 0.75 miles from the traffic signal).
- ▶ The southbound queue exiting the project A-Drive is around 0.2 miles long 25 minutes after the evacuation order.
- ▶ All downstream traffic congestion bottlenecks do not extend into the evacuation zone and do not impede evacuation within the evacuation zone.

Summary

Based on the WES, implementation of the project would not create traffic congestion that extends into the evacuation zone and would not substantially impede evacuation under any of the scenarios described above. All vehicle trips from the project site and evacuation zones would clear the evacuation zones 70 minutes and 55 minutes after the start of the evacuation order in the 60-minute and 45-minute evacuation scenarios, respectively. Use of the Lima Way EAE with 30 percent of the project residents evacuated through the Highland View neighborhood does not increase the total evacuation time to clear the Highland View neighborhood and all other evacuation zones, but it slightly increases the travel time during peak evacuation time interval compared to no Lima Way access (Figures 3.17-3 and 3.17-4).

Implementation of the FSP would also identifies the following strategies for evacuation:

- A. The strategies recommended in the Generations at Green Valley Wildfire Evacuation Study (FSP Appendix L) should be considered by all stakeholders.
- B. The HOA should consider restricting on-street parking and opening all EVA gates within the project boundaries during National Weather Service "Red-Flag" fire weather conditions in order to advance traffic flow conditions during an evacuation.
- C. CAL FIRE Ready-Set-Go education materials should be made available to all new residents of the Project for their use in preparing for an evacuation. EDHFD and CAL FIRE should be encouraged to visit the neighborhood annually to discuss this material and answer questions by the homeowners.
- D. Upon 8 or more dwellings being occupied within the Project the land owners should work together to obtain designation by the National Fire Protection Association (NFPA) as a FIREWISE USA® community. This designation will assist land owners in receiving insurance discounts for their fire insurance premiums.
- E. El Dorado County OES education materials on the RAVE program should be made available to all new residents of the Project for use in receiving timely notification information regarding the need to evacuate.

In addition, the project would include signage identifying that the Lima Way EAE is to only be used during an evacuation order. Cameras are anticipated to be installed and monitored by the project HOA to address unauthorized use of the EAE by project residents as described in Chapter 2, "Project Description," Defensible space and the associated reduction of vegetative fuels identified in the FSP have specifically been found to be effective at limiting the pattern of wildfire progression that can allow for more time for evacuation efforts (Kim et al. 2013; Martinson and Omi 2013; Tubbesing et al. 2019).

While the WES has identified that the project would not result in a substantial impairment of existing evacuation conditions in the project area, the El Dorado County OES has identified the need for special traffic signal operations during an evacuation to improve traffic flow along the Green Valley Road corridor at A-Drive, Silva Valley Parkway, El Dorado Hills Boulevard, Francisco Drive, Pleasant Grove Middle School, and Silver Springs Parkway to show green to provide additional response time for OES and/or to reduce the amount of traffic control resources necessary. This is generally consistent with the recommendations of the project-specific WES. This operation would further accommodate and improve existing and future resident evacuations in the region that would minimize the injury and the loss of life. This impact would be **significant**.

Mitigation Measures

Mitigation Measure 3.17-1: Participate in Green Valley Road Traffic Signal Improvements for Evacuation

To assist in timely evacuations, prior to building permit issuance, the applicant shall coordinate with the El Dorado County Department of Transportation (DOT) and El Dorado County Sheriff's Office, Office of Emergency Services (OES) to identify the infrastructure needed to remotely trip the traffic signals to green at Green Valley Road at Silva Valley Parkway, El Dorado Hills Boulevard, Francisco Drive, at Pleasant Grove Middle School, and Silver Springs Parkway. The applicant shall fund the necessary infrastructure and said infrastructure shall be installed prior to building permit issuance, to the satisfaction of El Dorado County DOT and OES. The County shall attempt to identify additional funding sources to assist in the funding of these improvements.

Significance after Mitigation

As discussed above, the WES identified that the project would not result in a substantial impairment of existing evacuation conditions in the project area by reducing the level, and/or timing, of emergency traffic control resources needed during an evacuation event. However, additional improvements to the Green Valley Road corridor to accommodate existing and future evacuation needs have been identified by El Dorado County OES. Mitigation Measure 3.17-1 would require the applicant to coordinate with El Dorado County DOT, Sheriff's Office, and OES to identify necessary traffic signal infrastructure for evacuation. The applicant would be required to fund the identified infrastructure to remotely trip signals to green and to install the infrastructure prior to the project building permit issuance. Implementation of the FSP and Mitigation Measure 3.17-1 would be consistent with General Plan policy provisions Objective 6.11.1 and Policy 6.11.1.1 and Objective 6.11.2 and Policies 6.11.2.1, 6.11.2.2, and 6.11.2.4. Thus, implementation of this mitigation measure would reduce this impact to **less than significant**.

Impact 3.17-2: Exacerbate Wildfire Risks due to Slope, Prevailing Winds, and Other Factors, and Thereby Expose Project Occupants to Pollutant Concentrations from a Wildfire or the Uncontrolled Spread of a Wildfire

Project site development would result in construction and operational activities that could introduce new ignition sources that could increase wildfire hazards. The project would implement its Fire Safe Plan that addresses potential impacts resulting from wildland fire hazards and identifies measures necessary to mitigate these hazards.

Implementation of the project and the associated Fire Safe Plan would not exacerbate wildfire risk, nor would it substantially increase the likelihood that the project would expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts would be **less than significant**.

As described in Chapter 2, "Project Description," the project proposes the creation of 379 residential lots, park site, clubhouse, and 54.51 acres of designated open space. Project construction activities (e.g., vegetation removal, grading, building construction) and operation (e.g., property maintenance using equipment) would create new ignition sources in an area designated as a High FHSZ. Exposure to particulate matter generated by wildfire events can result in significant health problems including aggravated asthma, increased susceptibility to respiratory infections, and heart attacks and arrhythmias in people with heart disease (Sacramento Metropolitan Air Quality Management District 2019).

The project consists of a FSP (Appendix J) that has been reviewed and approved by the El Dorado Hills Fire Department Fire Marshal and the CAL FIRE Battalion Chief. Chapter 4 of the FSP identifies that the proposed project has a low risk factor rating for wildfire vulnerability (Appendix J:Table 3). This rating is based on the proposed subdivision design, vegetation fuel type, defensible space, site topography, building construction materials to be used, roofing materials to be used, water source for fire protection, capacity of the El Dorado Hills Fire Department to serve the project, utilities, and critical assets/infrastructure at risk.

The FSP includes a number of strategies, including, but not limited to:

- A. Street signs and individual building address signage shall conform with the provision described in Section 4.5 of FSP. Address numbers on each residential building shall be either internally or externally illuminated.
- B. Fencing materials adjacent to non-irrigated open space areas shall be constructed of non-combustible materials.
- C. Combustible sheds and other outbuildings shall be kept at least 30 feet from residential dwellings and other buildings on each parcel.
- D. The following specific alternative material and construction methods, exceeding the minimum criteria described in CBC Chapter 7A, shall be implemented within the Project to meet the “Practical Effect” principles described in CCR Title 14 – Section 1276.01 when buildings are located within 30-feet of property lines to reduce the potential for building-to-building fire spread may include, but are not limited to², the following provisions:
 - ▶ Block any spaces between roof decking and the Class A roof covering to prevent embers from catching and igniting the building;
 - ▶ Eaves shall be enclosed on the underside with non-combustible material, ignition-resistant material, or minimum two (2) inch lumber;
 - ▶ Exterior walls shall be constructed with non-combustible building materials such as stucco, fiber cement, stone, or brick, and comply with CCR Title 24, Part 2, Chapter 7A, Section 707A;
 - ▶ Use WUI ember and flame-resistant vents, conforming with the requirements described in ASTM E2886, to protect exterior wall openings when the wall is located within 30-feet of another building or faces the Wildland Fuel Reduction Zone areas. Dryer vents shall be metal and equipped with a louver or flap;
 - ▶ Exterior windows, skylights, glazed doors, and glazed openings within exterior doors shall be multi-paned with at least two (2) tempered panes, minimum twenty (20) minute fire rated, or fire-resistant glass block units. Shutters installed over windows shall be non-combustible;
 - ▶ Areas under first floor bay windows shall be enclosed with non-combustible walls;
 - ▶ Exterior doors of buildings shall be non-combustible, or have a non-combustible exterior storm door, and comply with CCR Title 24, Part 2, Chapter 7A, Section 708A;
 - ▶ A minimum non-combustible area of 6 vertical inches, measured from the ground up (at grade) and from any attached horizontal surface like a deck, shall be provided on the exterior of all buildings. Non-combustible materials can include brick, stone, fiber-cement siding, or concrete;
 - ▶ Fencing materials located within 5-feet of a building shall be constructed of non-combustible materials. Areas located between 0-feet and 5-feet from all buildings shall remain non-combustible. Back-to-back, combustible fencing shall be separated by a minimum of five (5) feet;
 - ▶ Landscape materials and other vegetation located within 0 to 100 feet of dwellings shall comply with the fire-resistant standards of EDHFD and CAL FIRE;
 - ▶ Accessory and miscellaneous structures, as defined in the CBC, located within the reduced fire setback zone shall comply with this plan and CCR Title 24, Part 2, Chapter 7A, Section 710A;
 - ▶ Decks, including posts, joists, railing, stairs, and walking surfaces, shall be non-combustible and comply with CCR Title 24, Part 2, Chapter 7A, Section 709A;
 - ▶ Projections shall be non-combustible, ignition resistant, or one (1) hour fire-rated in accordance with IWUIC, Section 503.2, and/or NFPA 1144, Section 5.2; and

² The project would comply with all applicable state and local code and regulatory requirements to achieve “Practical Effect” at the time of issuance of the building permit.

- ▶ Gutters and downspouts shall be of non-combustible material. Gutters shall be provided with a non-combustible leaf guard.
- E. Wildfire fuel reduction management and defensible space practices for the Project shall follow the requirements identified in Chapter 6 of the FSP.
- F. A Restrictive Covenant shall be filed with the final subdivision map which stipulates that a Fire Safe Plan has been prepared and wildfire mitigation measures shall be implemented.
- G. "No Smoking" signs shall be posted at all trail entrances.
- H. At all trail intersections with the roads that have vehicle access there shall be a knock down bollard or gate with a Knox® padlock, or other approved lock, to allow for the passage of emergency equipment onto the trail.
- I. A 5-foot defensible space ember-resistant zone (Zone 0) shall be maintained around all buildings (including fencing within 5 feet).
- J. The project HOA, or other acceptable entity, shall be responsible for maintaining all private emergency vehicle access roads and wildfire fuel reduction zone provisions described in Chapter 6 of the FSP. Reliable on-going sources of funding shall be established and acceptable to EDHFD prior to the recording of the final map for the project. Specifically, and also without limiting the foregoing, the owners shall be responsible for the operation and maintenance of, and for potential liability arising from, the following measures:
- ▶ Provisions for the necessary repair and maintenance of the roadway surface (as determined by the HOA and/or EDHFD); and
 - ▶ Removal of vegetation overgrowing the roadway and infringing on the roadway clear vertical height of fifteen feet (15') or width of twenty feet (20'); and
 - ▶ Provisions for the maintenance, repair, and/or replacement of NO PARKING-FIRE LANE signage or striping; and
 - ▶ Provisions for the necessary repair and maintenance of vehicle and pedestrian access gates and opening systems.

Chapter 6 of the FSP (Fuel Reduction Management and Defensible Space Concepts) provides a fuel modification plan that consists of the following three defensible space zones for specific wildfire fuel reduction standards associated with buildings.

- ▶ Zone 0 – Ember-Resistant Zone (0 to 5 feet from buildings)
- ▶ Zone 1 – Lean, Clean and Geen Zone (30 feet from buildings or to the property line)
- ▶ Zone 2 – Reduce Fuel Zone (30 to 100 feet from buildings or to the property line)

This fuel modification plan addresses both construction activities and maintenance of the site. Specific wildfire fuel reduction zones for the project are provided in Figure 13 of Appendix J. The provision of defensible space and the associated reduction of vegetative fuels have specifically been found to be effective at reducing fire frequency, fire severity, and annual area burned over an extended period of time. Where treatments have occurred, the pattern of wildfire progression may be limited to low-intensity underbrush and surface burning, which can create safe conditions for firefighters to successfully suppress fires in areas near structures, or around areas of high resource value (Kim et al. 2013; Martinson and Omi 2013; Tubbesing et al. 2019).

Based on the discussion above, implementation of the project would not exacerbate wildfire risk, nor would it substantially increase the likelihood that the project would expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The required fuel reduction and operational features of the FSP would present an improvement over current conditions, since the wildfire risks associated with the site's existing conditions would be reduced. Implementation of the FSP would also be consistent with General Plan Objective 6.2.1 and associated Policies 6.2.1.1 through 6.2.1.5, Objective 6.2.2. and associated Policies 6.2.2.1 and 6.2.2.2, Objective 6.2.3 and associated Policies 6.2.3.1 through 6.2.3.7, Objective 6.2.4 and associated Policies 6.2.4.1 through 6.2.4.3. Accordingly, the impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.17-3: Exacerbate Wildfire Risks or Result in Temporary or Ongoing Impacts to the Environment due to the Installation or Maintenance of Associated Infrastructure

The project would include on-site and off-site infrastructure improvements, including EA roads, water, wastewater, and electrical improvements, and internal roadway improvements. The extension of public water service would improve the ability to combat potential fire incidents on-site. In addition, implementation of the project's Fire Safe Plan would involve vegetation management that would be required to comply with biological protection criteria established in the Fire Safe Plan and mitigation measures identified in this Draft EIR. This impact would be **less than significant**.

As discussed in Impacts 3.17-1 and 3.17-2 above, implementation of the FSP as well as extension of public water supply infrastructure to the project would result in an improved condition with respect to wildfire preparedness and the ability to lessen the overall severity of future wildfires in the area. The physical environmental impacts of water supply infrastructure improvements are addressed in Section 3.15, "Utilities and Service Systems." Implementation of fire prevention strategies identified in the FSP and summarized in Impact 3.17-2 above would further reduce the wildfire risks related to infrastructure improvements associated with the project. As identified in the FSP, project construction activities would be required to comply with current Fire Code provisions required by the El Dorado Hills Fire Department and CAL FIRE (e.g., CCR Title 24 – Part 9 [California Fire Code]). These provisions address handling of flammable and combustible liquids, portable generators, fire reporting, access for emergency vehicles, water supply for fire protection, and portable fire extinguishers.

Project construction activities (including fuel modification activities) and routine vegetation management would be subject to biological resource mitigation measures 3.4-1, 3.4-2a through 3.4-2j, 3.4-3a, 3.4-3b, 3.4-4, 3.4-6a and 3.4-6b, and FSP Specific Wildfire Fuel Reduction Zone Criteria E:

Threatened and/or endangered species may be present within the WFRZ areas. The recommendations of the Project biologist shall be implemented with respect to avoiding loss or harm to the affected species, or restoration and/or compensation measures to be undertaken if the species' habitat cannot be avoided. For example, if nesting raptors are present, the nesting tree shall not be removed and no tree removal or mechanical activity shall occur within a buffer zone established around the nest until the young have fledged. The Federal and/or State agency with jurisdiction over the affected protected species shall also be consulted

Therefore, implementation of the project, including associated infrastructure improvements associated with fire protection would not exacerbate fire risks or create on-going impacts to the environment. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.17-4: Expose People or Structures to Significant Risks of Loss, Injury, or Death, Involving Wildland Fire or Risks Including Downslope or Downstream Flooding or Landslides, as a Result of Runoff, Post-Fire Slope Instability, or Drainage Changes

As discussed in Impacts 3.17-1 and 3.17-2, implementation of the project would not substantially exacerbate wildfire risk. The project would improve conditions related to on-site wildfire risk through vegetation fuel modification and implementation of the fire prevention strategies identified in the Fire Safe Plan. A post-fire condition of the project site is not expected with implementation of the Fire Safe Plan that would create site instability that would expose people or structures to significant risks of loss, injury, or death due to wildland fire or to risks related to downslope, flooding, or landslides. This impact would be **less than significant**.

As discussed in Impact 3.17-2 above, Chapter 4 of the FSP identifies that the proposed project has a low risk factor rating for wildfire vulnerability (Appendix J:Table 3). This rating is based on the proposed subdivision design,

vegetation fuel type, defensible space, site topography, building construction materials to be used, roofing materials to be used, water source for fire protection, capacity of the El Dorado Hills Fire Department to serve the project, utilities, and critical assets/infrastructure at risk. The required fuel reduction and operational features of the FSP would present an improvement over current conditions, since the wildfire risks associated with the site's existing conditions would be reduced.

The project site is not located in an area susceptible to landslides as discussed in Section 3.6, "Geology and Soils." In addition, the project site would include eight on-site detention/water quality basins that could address temporary changes in flooding and water quality conditions from an on-site fire incident. Thus, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4 CUMULATIVE IMPACTS

4.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This Draft EIR provides an analysis of cumulative impacts of the proposed project, as required by Section 15130 of the State CEQA Guidelines. The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant, and second, to determine whether the incremental contribution to any such cumulatively significant impacts of the project would be “cumulatively considerable” (and thus significant). (See State CEQA Guidelines Sections 15130(a)–(b), Section 15355(b), Section 15064(h), and Section 15065(c); and *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create a broad context in which to assess cumulative impacts, viewed on a geographic scale beyond the project site itself, and then to determine whether the project’s incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., “cumulatively considerable”).

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (State CEQA Guidelines Section 15355(b)).

4.2 CUMULATIVE IMPACT ANALYSIS METHODOLOGY

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this Draft EIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, that:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A proposed project would have a significant cumulative effect if:

- ▶ the cumulative effects of development without the project are not significant and the project’s additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact, or
- ▶ the cumulative effects of development without the project are already significant and the project contributes measurably to the effect.

The term “measurably” is subject to interpretation. The standards used herein to determine measurability are that the impact must be noticeable to a reasonable person or must exceed an established threshold of significance (defined throughout the resource sections in Chapter 3 of this Draft EIR). This cumulative analysis also assumes that all mitigation measures identified in Chapter 3 to mitigate project impacts are adopted and implemented that would minimize environmental effects are implemented.

The State CEQA Guidelines (Section 15130[b][1]) identify two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. This analysis uses a combination of the list and planning document approach, as described further below.

4.2.1 Geographic Scope

The geographic area that could be affected by the project and is appropriate for a cumulative impact analysis varies depending on the environmental resource topic, as presented in Table 4-1.

Table 4-1 Geographic Scope of Cumulative Impacts

Resource Topic	Geographic Area
Aesthetics	Project site and surrounding public viewshed
Air Quality	Region (pollutant emissions that affect the Mountain Counties Air Basin) and immediate project vicinity (pollutant emissions that are highly localized)
Archaeological and Historical Cultural Resources	Region
Biological Resources	Project site and region
Energy	Pacific Gas and Electric Company service area and state
Geology, Soils, and Paleontological Resources	Project site and region
Greenhouse Gas Emissions and Climate Change	Global/statewide
Hazards and Hazardous Materials	Project site and immediate project vicinity
Hydrology and Water Quality	Green Spring Creek Watershed that is contained within the Lower South Fork American River watershed and Folsom Reservoir–South Fork American River subwatershed
Land Use, Planning, and Agriculture and Forestry Resources	Project site and surrounding area
Noise and Vibration	Project site and immediate project vicinity
Population and Housing	El Dorado County
Public Services and Recreation	El Dorado County
Transportation	Project site and region
Utilities and Service Systems	Local service areas (e.g., El Dorado Irrigation District and El Dorado Hills Fire Department)
Tribal Cultural Resources	Region
Wildfire and Evacuation	Project site and region

Source: Compiled by Ascent in 2024.

4.3 CUMULATIVE SETTING

4.3.1 Regional Planning Environment

El Dorado County General Plan

The El Dorado County General Plan was adopted in 2004 and has been subsequently amended through 2022 (including the El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update, adopted in 2015). It provides a broad framework for planning the future of the unincorporated area of the County. It is the official policy statement of the County and is used to guide the private and public development in the unincorporated area.

As discussed in El Dorado County's 2021–2029 Housing Element Update, El Dorado County's population could grow by an additional 16,846 persons by 2030 from 2020. It is expected that the El Dorado County population will increase by 8.8 percent between 2020 and 2030, with an average annual growth rate of 0.9 percent per year. It is projected that the County will grow to approximately 225,419 residents by 2040, an increase of approximately 36,413 new residents compared to the current population of 189,006 residents (El Dorado County 2022).

Sacramento Area Council of Governments

The Sacramento Area Council of Governments (SACOG) provides regional housing, land use planning, and transportation planning for its six-county region, which encompasses El Dorado County, as well as Placer, Sacramento, Sutter, Yolo, and Yuba Counties. In developing the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), SACOG prepared a land use forecast required to accommodate the regional growth forecast of population, employment, and housing demand. The 2020 MTP/SCS includes a forecast of the amount of growth that will occur in SACOG's plan area over a 20-year planning period (2020–2040). The regional growth forecast is based on economic and demographic projections through 2040, adopted and pending land use plans and policies, market and economic considerations, and other state and federal policies and regulations that can affect the locations and pace of growth. The number of new residents in the SACOG area is estimated to increase by approximately 620,000 between 2016 and 2040 (SACOG 2019).

4.3.2 Related Projects

A list of probable future projects is provided below. Probable future projects are those in the project vicinity that have the possibility of interacting with the project to generate a cumulative impact (based on proximity and construction schedule). These projects:

- ▶ are partially occupied or under construction,
- ▶ have received final discretionary approvals,
- ▶ have applications accepted as complete by local agencies and are undergoing environmental review, or
- ▶ are proposed projects that have been discussed publicly by an applicant or that otherwise have become known to a local agency and for which information is sufficient to allow at least a general analysis of environmental impacts.

Past and present projects in the vicinity are also considered as part of the cumulative analysis because they contribute to the existing conditions upon which the project's and probable future projects' environmental effects are considered.

Table 4-2 briefly summarizes reasonably foreseeable large-scale projects in the project area.

Table 4-2 Cumulative Projects List

Project Name	Location	Project Summary	Project Status
Bass Lake Hills Specific Plan	3 miles east of the Sacramento/El Dorado County line, adjacent to the west end of Cameron Park, and north of US 50	Development framework for 1,196 acres. Provides for development of residences in a range of densities, from one dwelling unit per 5 acres to four dwelling units per acre (approximately 1,458 dwelling units).	Approved; under development
Carson Creek Specific Plan	East of the Sacramento/El Dorado County line, south of White Rock Road	Framework for mixed-use development on 710 acres for a total of 1,925 dwelling units.	Specific plan adopted; under development
Promontory Specific Plan	East of the Sacramento/El Dorado County line and north of US 50	Framework for mixed-use development on 1,000 acres. Includes eight residential villages, a village center, a community park, and open space. 1,100 residential units entitled.	Specific plan adopted; under development
Valley View Specific Plan (Blackstone)	South of US 50 and east of Latrobe Road	Framework for mixed-use development on 2,037 acres that allows up to 2,840 residential units.	Specific plan adopted; under development
The Village of Marble Valley Specific Plan	East of Marble Valley Road, south of US 50	Framework for mixed-use development on 2,341 acres. Includes a variety of residential housing types, commercial and public facilities uses (475,000 square feet of nonresident uses), and parks and natural open spaces. Would allow up to 3,236 dwelling units.	Under review

Project Name	Location	Project Summary	Project Status
Lime Rock Valley Specific Plan	West of Shingle Lime Mine Road, south of Cameron Estates, and east of the Marble Valley Specific Plan area	Framework for mixed-use development on 740 acres. Would allow up to 800 dwelling units.	Under review
El Dorado Hills 52 Retail Shopping Center	North of the Silva Valley Parkway/US 50 interchange	Commercial development project on approximately 34 acres consisting of up to approximately 179,000 square feet of commercial uses and 304 multifamily dwelling units.	Under review
Saratoga Estates	Within the El Dorado Hills Community north of US 50 adjacent to the western El Dorado County boundary with the City of Folsom	Residential development project on 121 acres consisting of the development of 317 dwelling units.	Approved and under development
Ridgeview Village	East of El Dorado Hills Boulevard	444 acres with 527 large and small residential lots, three parks, and open space.	Approved and under development
Cameron Meadows	In the Cameron Park Community east of the Cameron Park Airport between the Cameron Woods and Cameron Valley subdivisions	Residential development project consisting of 161 residential lots and 16 accessory dwelling units.	Under review
Dorado Oaks	Located on the west side of Faith Lane, approximately 500 feet south of the intersection with Pleasant Valley Road/State Route 49 in the El Dorado and Diamond Springs Community Region	Residential development project located on 142.3 acres. Project proposes 156 single family lots ranging in size from 6,000 square feet to approximately 24,000 square feet, 225 multi-family lots ranging in size from approximately 2,000 square feet to 7,170 square feet; one single-family lot of approximately 6.4 acres; seven roadway lots; and 18 open space/landscape lots open space/landscape lots.	Under review
The Town & Country Village El Dorado	North of US 50, east of Bass Lake Road in the El Dorado Hills Community	Mixed-use development project on 60.5 acres consisting of 814 residential units; 300 hotel rooms; and 271,000 sf of commercial uses.	Under review
Creekside Village Specific Plan	South of US 50, west of Latrobe Road and south of Investment Boulevard in the El Dorado Hills community	208-acre site for the proposed development of a new 918-unit residential community.	Under review
City of Folsom 2035 General Plan Amendments for Increased Residential Densities	City of Folsom	Amendments to the 2035 General Plan and Folsom Plan Area Specific Plan to increase residential development potential in compliance with the City 2021–2029 Housing Element Update and allow for an additional 6,046 residential dwelling units in the city.	Under review

Note: The Serrano Specific Plan development is not included on this list because it is largely constructed and is, therefore, generally incorporated into the existing condition.

Source: Compiled by Ascent 2024.

4.4 ANALYSIS OF CUMULATIVE IMPACTS

The following sections present a discussion of the cumulative effects anticipated from implementation of the project, as well as related projects and planned development in the region, for each of the environmental issue areas evaluated in this Draft EIR. The analysis conforms with Section 15130(b) of the State CEQA Guidelines, which states, "The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

When considered in relation to other reasonably foreseeable projects, cumulative impacts on some resources would be significant and more severe than those caused by the proposed project alone.

For purposes of this EIR, the project would result in a significant cumulative effect if:

- ▶ the cumulative effects of related projects (past, current, and probable future projects) and planned growth under the El Dorado County General Plan are not significant, and the incremental impact of implementing the project is substantial enough, when added to the cumulative effects of related projects, to result in a new cumulatively significant impact, or
- ▶ the cumulative effects of related projects (past, current, and probable future projects) and planned growth under the El Dorado County General Plan are already significant, and implementation of the project makes a considerable contribution to the effect. The standards used herein to determine a considerable contribution are that the impact either must be substantial or must exceed an established threshold of significance.

The cumulative impact analysis below includes a summary of significant and unavoidable impact conclusions that were identified in the certified EIRs for the El Dorado County General Plan and El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update as part of the cumulative impact setting.

This cumulative analysis assumes that all mitigation measures identified in Sections 3.1 through 3.17 to mitigate project impacts are adopted and implemented and that all elements of the design-build performance criteria that would minimize environmental effects are implemented. The analysis herein analyzes whether, after implementation of project-specific mitigation and performance criteria that minimize environmental effects, the residual impacts of the project would cause a cumulatively significant impact or would contribute considerably to existing/anticipated (without the project) cumulatively significant effects. Where the project would contribute to an effect, additional mitigation is recommended where feasible.

4.4.1 Aesthetics

Aesthetic and visual resource impacts are project specific and highly localized. The geographic extent for considering cumulative impacts on aesthetics encompasses the viewshed (i.e., area visible from the viewer's location) in which the project would be located. As described in Section 3.1, "Aesthetics," public viewsheds of the proposed project are limited to the Green Valley Road corridor for a distance of approximately 0.50 miles between Malcolm Dixon Road and the Green Valley Farms site and at Lima Way. There are no other proposed development projects within this viewshed of Green Valley Road or within 0.50 miles of the project site that could contribute to visual or light/glare impacts.

The El Dorado County General Plan EIR identified significant and unavoidable visual character impacts associated with future development from implementation of the General Plan under project and cumulative conditions (El Dorado County 2004). The El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR also identified significant and unavoidable impacts related to scenic vistas, resources in a scenic highway, degradation of existing visual character, and lighting and glare under project and cumulative conditions (El Dorado County 2015).

IMPACT 4-1: CONTRIBUTE TO CUMULATIVE VISUAL CHARACTER IMPACTS

As described in Section 3.1, "Aesthetics," the project site is not located along roadways that are identified by the County as providing public scenic viewpoints. In addition, there are no designated or eligible state scenic highways in the vicinity of the project site, and the site is not visible from any officially designated or eligible state scenic highway. Thus, the project would not contribute to cumulative impacts on scenic vistas or scenic highways.

The visual character of the site would change from an open, rural landscape to suburban development, which would continue the expansion of the single-family residential developments that surround the project site. However, the site is located within the boundaries of the General Plan's Community Region, indicating that it is appropriate for transition to an urbanized area. As shown in Figure 3.1-2 and 3.1-3 and the line of sight analysis provided in Figure 3.1-6, views deep into the project site are limited due to on-site oak woodland that would be retained in proposed open space and RE-5 zoned residential lots and topography conditions (hillsides facing Green Valley Road). Open

views of project features would be limited to the proposed RE-5 zoned residential lots 1, 2, 4, 5, 7, and 8 that would be 5 acres or greater in size as well as the proposed park site and open space Lot C (see Figure 2-6). These lot sizes and associated residential development would be similar in character to existing rural residential development to the north, east, and south of the project site as well as along the Green Valley Road corridor in the project area. As shown in Figure 3.1-6, the existing oak woodland and topographic conditions viewed from Green Valley Road would obscure public views of the denser residential development proposed in the central portion of the site that would be located over 0.25 miles from Green Valley Road. In addition, this viewshed is approximately 0.50 miles and only provides for a 32 second duration of views of the project site (assuming a vehicle is traveling the posted speed limit of 55 miles per hour). Given the distance of potential views of proposed dense residential development, oak woodland and topographic conditions that would obscure views of site development, and the limited duration that views into the project site are available, the project would not result in a substantial alteration of the visual character of the Green Valley Road corridor as compared to existing conditions. Public views from Lima Way would be altered with the extension of Lima Way as one of the three proposed emergency vehicle roads, proposed tree removal, grading, and site development. This alteration could allow for public views of future residential development of the site. However, these potential public views of residential development on the project site would be limited to the two residences adjacent to Lima Way and pedestrians passing Lima Way. Ultimately, the proposed residential uses would be generally similar in character to the existing subdivision where Lima Way is located. Construction related to the off-site improvements would be temporary and would not result in permanent scenic changes, because the scenic character and quality of the roadways and surroundings would return to their previous visual condition.

Therefore, the project's contribution to substantial changes to visual character impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-2: CONTRIBUTE TO CUMULATIVE LIGHTING AND GLARE IMPACTS

As discussed for Impact 3.1-2, implementation of the project would result in the development of static features, such as residential units and windows, and mobile features, such as cars, which would introduce new sources of light and daytime glare. Implementing the project would result in outdoor lighting at intersections and potentially along roadways and pathways, as well as indoor and outdoor lighting associated with residential units, recreational facilities, and parks. These project features would contribute to cumulative lighting and glare conditions in the project area. However, all lighting would be required to comply with Section 130.34.020 of the County Zoning Ordinance, which requires development to shield and direct outdoor lighting to ensure that direct light does not fall outside the property line or into the public right-of-way. Additionally, Sections 3.5(B) and 3.5(C) of the Outdoor Lighting Community Design Standards require lighting to be installed close to residences or activity areas, security lighting to be activated by motion sensor, and a lighting plan to be prepared and submitted with the proposed lighting installation. The El Dorado Hills Community Services District would design the park features after project approval and acquisition of the park and would determine whether lighted sports fields or courts would be included in the future park design and identify light pollution controls under a separate project by the CSD. Features to reduce excess nighttime light and glare, such as the use of directional shielding and automatic shutoff or motion sensors, would be incorporated into the project design in compliance with these standards and would offset the project's contribution to this cumulative impact. Additionally, the proposed RE-5 zoned residential lots and open space lots around the perimeter of the project would serve as a buffer for new lighting and glare sources introduced by the denser residential development proposed by the project by adding more distance and topographic and vegetative (oak woodlands) barriers between the project site and public viewpoints along Green Valley Road. Other reasonably foreseeable cumulative development would be required to comply with the same lighting standards.

Therefore, the project's contribution to substantial changes to lighting and glare impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.2 Air Quality

The cumulative setting for air quality is the Mountain Counties Air Basin (MCAB). El Dorado County and the MCAB are within the jurisdiction of the El Dorado County Air Quality Management District (EDCAQMD). El Dorado County is currently designated as nonattainment with respect to the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) for ozone and with respect to the NAAQS for respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀) and fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}). Emissions of criteria air pollutants and precursors from industrial sources, area sources, and mobile sources in the basin have contributed to exceedances of the NAAQS for ozone and fine particulate matter and the CAAQS for ozone, respirable particulate matter, and fine particulate matter. Projects identified in Table 4-2 would increase emissions of these criteria air pollutants. Odor and toxic air contaminants (TACs) exposure are localized impacts, and the cumulative context is considered to be within 1,000 feet from the project site and associated off-site roadway and infrastructure improvements during construction.

The El Dorado County General Plan EIR identified significant and unavoidable air quality impacts related to construction-related emissions, long-term operational emissions, odors, and TAC emissions associated with future development from implementation of the General Plan under project and cumulative conditions (El Dorado County 2004). The El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR also identified significant and unavoidable air quality impacts related to construction-related emissions, long-term operational emissions, odors, and TAC emissions under project and cumulative conditions (El Dorado County 2015).

IMPACT 4-3: CONTRIBUTE TO CUMULATIVE CONFLICTS WITH OR OBSTRUCTION OF IMPLEMENTATION OF AN APPLICABLE AIR QUALITY PLAN

As described for Impact 3.2-1, the project would conflict with EDCAQMD's Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts under the California Environmental Quality Act (EDCAQMD CEQA Guide) regarding consistency with the 2023 Ozone Plan, which may contribute to cumulative impacts associated with regional efforts to address ozone air pollution. Implementation of Mitigation Measures 3.2-1a, 3.2-1b, 3.2-1c, 3.7-1a, and 3.14-2 would mitigate and offset the project's conflicts with the 2030 Ozone Plan through air pollutant reduction measures.

Therefore, the project's contribution to cumulative conflicts with the 2030 Ozone Plan **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-4: CONTRIBUTE TO CUMULATIVE CONSTRUCTION AIR QUALITY IMPACTS

Construction activities in the region would emit additional particulate matter and ozone precursors that may conflict with attainment efforts in the County. Because the region is in nonattainment, the existing cumulative condition is adverse, and any additional emissions would exacerbate that condition. However, EDCAQMD has established construction emission thresholds for individual construction projects that determine whether that particular project's emissions would be cumulatively considerable. As addressed in the discussion of Impact 3.2-2, application of Mitigation Measure 3.2-1a would be effective in reducing construction-related emissions of oxides of nitrogen (NO_x) below EDCAQMD's numerical threshold for NO_x by requiring that off-road equipment use Tier 4 engines. In addition, implementation of Mitigation Measure 3.2-1b would require that the dust reduction measures of the South Coast Air Quality Management District's Rule 403, identified as mitigation in Section C.6 of the EDCAQMD CEQA Guide, be

implemented. The incorporation of these dust reduction measures would address and offset the project's contribution to this impact.

Therefore, the project's contribution to cumulative construction air quality impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-5: CONTRIBUTE TO CUMULATIVE OPERATIONAL AIR QUALITY IMPACTS

As discussed for Impact 3.2-3, the project would not result in emissions that would exceed EDCAQMD thresholds and would not conflict with air quality planning efforts in the region and may result in a cumulatively considerable net increase in ozone, for which the region has been designated as nonattainment with respect to the NAAQS and CAAQS. Because the NAAQS and CAAQS were established to be protective of public health, adverse health impacts to receptors are not likely occur.

Therefore, the project's contribution to cumulative operational air quality impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-6: CONTRIBUTE TO CUMULATIVE EXPOSURE TO TOXIC AIR CONTAMINANTS, NATURALLY OCCURRING ASBESTOS, CARBON MONOXIDE, AND ODOR

Emission of TACs, naturally occurring asbestos (NOA), carbon monoxide, and odor is a localized impact. There are no existing or planned land uses adjacent to the project that would be large stationary sources of local TACs or odors. As identified in the discussion of Impact 3.2-4, the project's potential for TAC and NOA impacts is associated with project construction activities. Implementation of Mitigation Measures 3.2-1a and 3.2-1c would offset the project's impact through use of Tier 4 engines and implementation of NOA dust control measures. The discussion of Impact 3.2-5 concludes that the project's contribution to carbon monoxide hotspots through increases in traffic volumes in the project area would not exceed the NAAQS or CAAQS that address public health.

As discussed for Impact 3.2-6, construction and operation of land uses under the project would not result in the development of new odor sources atypical of developed urban areas, and odor-generating construction activity would be temporary. Any new odor sources would be subject to future environmental review and to EDCAQMD Rule 205, Nuisance.

Therefore, the project's contribution to cumulative exposure to TACs, NOA, carbon monoxide, and odor impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.3 Archaeological and Historical Cultural Resources

The cumulative context for the cultural resources analysis considers a broad regional system that includes the resources. The Gold Rush of the 1850s, the economic and agricultural development of El Dorado County, and commerce and trade in the historic communities associated with Green Valley have affected these lands. In addition, both the Sacramento-Coloma Road and the Sacramento and Placerville Wagon Road, developed from a circuitous trail used by emigrants and miners between 1848 and 1850, affected Nisenan lands. These activities have resulted in an existing significant adverse effect on cultural resources. Cumulative development, including projects described in Table 4-2, continues to contribute to the disturbance of cultural resources.

Because all significant cultural resources are unique and nonrenewable members of finite classes (meaning there are a limited number of significant cultural resources), all adverse effects erode a dwindling resource base. The loss of any one archaeological site could affect the scientific value of others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part. The cultural system is represented archaeologically by the total inventory of all sites and other cultural remains in the region. As a result, a meaningful approach to preserving and managing cultural resources must focus on the likely distribution of cultural resources, rather than on a single project or parcel boundary.

Although the El Dorado County General Plan EIR did not identify any significant and unavoidable cultural resource impacts, the El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR identified significant and unavoidable impacts on historic and archaeological resources under project and cumulative conditions (El Dorado County 2015).

IMPACT 4-7: CONTRIBUTE TO CUMULATIVE IMPACTS ON HISTORICAL AND ARCHAEOLOGICAL RESOURCES AND HUMAN REMAINS

As identified in Section 3.3, "Archaeological and Historical Cultural Resources," no known historical resources (built-environment resources) are located within the boundaries of the project site. However, implementing the project, in combination with other development in the region, could contribute to ongoing substantial adverse changes in the significance of unique archaeological resources resulting from urban development and conversion of natural lands. Cumulative development could result in potentially significant archaeological resource impacts. Implementation of Mitigation Measures 3.3-1a through 3.3-1c would offset the project's contribution to cumulatively significant archaeological resource impacts by providing training to construction personnel; requiring the performance of professionally accepted and legally compliant procedures in the event of a discovery, as well as the protection of any previously undocumented significant archaeological resources; and establishing protective orange fencing around significant resources during construction. Further, cumulative development would be required to implement similar mitigation to avoid or reduce impacts on cultural resources. Compliance with California Health and Safety Code Section 7050.5 and Public Resource Code Section 5097 would ensure that treatment and disposition of the remains occurs in a manner consistent with state guidelines and California Native American Heritage Commission guidance.

Therefore, the project's contribution to any significant cumulative impact related to cultural resources (archaeological resources) or human remains **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.4 Biological Resources

The effects of the project and potential cumulative impacts of related projects are limited to the greater project area vicinity, including adjacent migration and movement corridors in western El Dorado County. The project site is surrounded by residential development, roads, and open space. Past development in the region, including conversion of natural land to suburban uses, has resulted in a substantial loss of native habitat. The overall effect of this land conversion on native plants, animals, and habitat has been decidedly negative. Therefore, the cumulative condition for special-status species and sensitive habitats in the vicinity of the project site is already adverse.

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 (El Dorado County 2004). 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 (El Dorado County 2015). The approved and proposed development in the project area

identified in Table 4-2 would further contribute to identified cumulative biological resource impacts anticipated under the General Plan and Targeted General Plan Amendment/Zoning Ordinance Update.

As described in Section 3.4, "Biological Resources," the El Dorado County Board of Supervisors certified the Final EIR and adopted the Biological Resources Policy Update and the Oak Resources Management Plan (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 this 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 (El Dorado County 2017).

IMPACT 4-8: CONTRIBUTE TO CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

As described in Section 3.4, "Biological Resources," project implementation could result in significant impacts on special-status plants (some protected under El Dorado County Code), California red-legged frog, coast horned lizard, foothill yellow-legged frog, western pond turtle, burrowing owl, bald eagle, California black rail, golden eagle, grasshopper sparrow, loggerhead shrike, northern harrier, tricolored blackbird, white-tailed kite, yellow-breasted chat, and yellow warbler, native nesting birds protected under Section 3503 of the California Fish and Game Code and Migratory Bird Treaty Act, crotch bumble bee, monarch, American badger, pallid bat, Townsend's big-eared bat, western red bat, riparian habitat, state and federally protected wetlands, and oak trees protected under the El Dorado County Oak Resources Management Plan (ORMP). Implementing the mitigation measures identified for these resources (Mitigation Measures 3.4-1, 3.4-2a, 3.4-2b, 3.4-2c, 3.4-2d, 3.4-2e, 3.4-2f, 3.4-2g, 3.4-2h, 3.4-2i, 3.4-3a, 3.4-3b, 3.4-4, 3.4-6a, and 3.4-6b) would offset the project's contribution to cumulative biological resource impacts by avoiding impacts on these species and habitats or compensating for habitat and species impacts.

Therefore, the project's potential contribution to impacts on special-status species, riparian habitat, and state and federally protected wetlands would not be cumulatively considerable. However, the project would contribute to the cumulative loss of oak woodland habitat due to the anticipated removal of approximately 56 acres of oak woodland habitat. Thus, the project's contribution to cumulative oak woodland loss identified in the Biological Resources Policy Update and ORMP Final EIR would be **cumulatively considerable and significant and unavoidable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.5 Energy

The cumulative context for energy is existing and projected energy use in the Pacific Gas and Electric Company service area and in the state. Cumulative development in the County would increase regional energy demand. This would include approved and proposed projects identified in Table 4-2.

No significant and unavoidable energy use impacts were identified in the El Dorado County General Plan EIR or the El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR.

IMPACT 4-9: CONTRIBUTE TO CUMULATIVE ENERGY IMPACTS

As discussed for Impact 3.5-1, implementing the project would increase energy demand during temporary construction activities for new buildings and facilities; however, construction activities would not increase long-term, ongoing demand for energy or fuel, because project construction would be temporary, lasting approximately 60 months. Regarding operation, the project-level analysis (Impacts 3.5-1 and 3.5-2) concluded that because the project

would include natural gas utilities and would result in an exceedance of the County's vehicle miles traveled (VMT) threshold, thus increasing use of fossil fuels, energy use associated with operation of the project would be inefficient. Additionally, as discussed for Impact 3.5-2, the project would conflict with the priority areas identified in Appendix D of the 2022 Scoping Plan because natural gas infrastructure is included in the project design and the County's VMT threshold would be exceeded. In addition, the project does not include any features that would reduce energy consumption or increase the use of renewable energy sources above what would be required by the California Building Code. Implementation of Mitigation Measures 3.7-1a, 3.7-1b, and 3.14-2 would require that energy efficiency measures be included in the project design. Collectively, these measures would reduce fossil fuel consumption and increase the use of renewable energy sources, consistent with the requirements of Appendix F of the State CEQA Guidelines to conserve energy. Implementation of these mitigation measures would offset the project's contribution to a cumulative energy impact. Other reasonably foreseeable cumulative development would be required to comply with the same requirements as the project.

Therefore, the project's contribution to cumulative energy impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.6 Geology, Soils, and Paleontological Resources

Impacts related to geology and soils are not cumulative in nature. For example, impacts related to seismic shaking, erosion and loss of topsoil, geologic stability, expansive soils, and on-site wastewater disposal system operation relate only to project structures or the individual project site. However, paleontological resources can be thought of as areawide resources, and their loss at multiple sites may result in a cumulative impact.

The El Dorado County General Plan EIR identified significant and unavoidable mineral resource impacts under project and cumulative conditions (El Dorado County 2004). No significant and unavoidable geology, soil, or paleontological impacts were identified in the El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR. The approved and proposed development in the project area identified in Table 4-2 would further contribute to identified cumulative impacts anticipated under the General Plan.

IMPACT 4-10: CONTRIBUTE TO CUMULATIVE IMPACTS ON PALEONTOLOGICAL RESOURCES

As described in the discussion of Impact 3.6-5, El Dorado County's geologic formations are predominantly igneous in nature, and the types of sedimentary deposits where paleontological resources occur are virtually nonexistent in the County. Nevertheless, no comprehensive paleontological studies have been conducted in the County, and as a result, no information regarding the sensitivity of certain areas is available. Therefore, although it is unlikely that paleontological resources exist in the County, inadvertent discovery could still occur. Implementation of Mitigation Measure 3.6-5a would require that construction workers receive training provided by a qualified paleontologist to ensure that personnel can correctly identify fossilized remains in the event of inadvertent discovery, and Implementation of Mitigation Measure 3.6-5b would require, if any paleontological resources are encountered, that proper measures are in place to halt construction work until a qualified paleontologist evaluates the find. Mitigation Measure 3.6-5b also identifies recommendations regarding treatment. Because the presence or absence of paleontological resources is highly localized to a project site, the other projects considered in this cumulative analysis would be assessed on a project-specific, case-by-case basis and would be required to implement mitigation measures, as applicable. Implementation of these mitigation measures would ensure that the project's contribution to a cumulative geology and soils impact regarding paleontological resources would not be cumulatively considerable. Therefore, the project's contribution to cumulative impacts on paleontological resources **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.7 Greenhouse Gas Emissions and Climate Change

Prominent greenhouse gases (GHGs) contributing to the greenhouse effect are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. Climate change is a global problem caused by global pollutants and is inherently cumulative. Therefore, the cumulative setting for climate change is global, and the earth is experiencing an adverse cumulative condition. This includes consideration of planned development under the El Dorado County General Plan and pending development projects identified in Table 4-2.

No significant and unavoidable GHG and climate change impacts were identified in the El Dorado County General Plan EIR or the El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR.

IMPACT 4-11: CONTRIBUTE TO CUMULATIVE GREENHOUSE GAS IMPACTS

As stated above, the issue of global climate change is inherently cumulative because the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Therefore, the project's impact on climate change is addressed only as a cumulative impact. The discussion of Impact 3.7-1 states that implementing the project would result in significant and unavoidable GHG emission impacts that would conflict with state efforts to reduce GHG emissions and decarbonization (e.g., the California Air Resources Board's 2022 Scoping Plan for Achieving Carbon Neutrality) even with application of Mitigation Measures 3.7-1a and 3.7-1b, which would reduce project-related GHG emissions. Therefore, the project's contribution to cumulative GHG and climate change impacts **would be cumulatively considerable and significant and unavoidable**.

Mitigation Measures

No additional feasible mitigation measures are available to address this cumulative impact.

4.4.8 Hazards and Hazardous Materials

The cumulative context for hazards and hazardous materials is considered to be project-specific and limited to within approximately 1,000 feet of the project site. Although some hazardous material releases can cover a large area and interact with other releases (e.g., atmospheric contamination, contamination of groundwater aquifers), incidents of hazardous material contamination typically are isolated to a small area, such as leaking underground storage tank sites or the area affected by a release at individual businesses. For this reason, isolated areas of contamination typically do not interact in a cumulative manner with other sites of hazardous material contamination. However, if implementing the project would create a new site of contamination or contribute substantially to an existing hazardous condition in the vicinity of the project site, then it could contribute to a cumulative impact.

The El Dorado County General Plan EIR identified significant and unavoidable impacts associated with illegal disposal of household hazardous waste and accidental release of hazardous materials under project and cumulative conditions (El Dorado County 2004). No significant and unavoidable hazard impacts were identified in the El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR. The approved and proposed development in the project area identified in Table 4-2 would further contribute to identified cumulative impacts anticipated under the General Plan.

IMPACT 4-12: CONTRIBUTE TO CUMULATIVE HAZARD AND HAZARDOUS MATERIAL IMPACTS

As addressed in the discussion of Impact 3.8-3, project development is not expected to result in impacts on navigable airspace associated with Cameron Airpark Airport given the height of future residential structures in relation to local topography, the height of existing oak woodlands, and the presence of overhead powerline facilities in the project area.

Section 3.8, "Hazards and Hazardous Materials," states that the project site Phase I Environmental Site Assessment and updated records searches on EnviroStor and GeoTracker did not identify the presence of, or the previous release of, hazardous materials on or in the vicinity of the project site under cumulative conditions. Construction activities that involve the use of hazardous materials on the project site would be required to comply with established safety regulations mandated by federal, state, and County laws and regulations governing the storage, use, and transport of hazardous materials. Implementation of Mitigation Measure 3.8-1a and 3.8-1b would address project-specific on-site hazards. Construction of cumulative projects and associated activities located in the vicinity of the project site would also be required to comply with these mandated federal, state, and County laws and safety regulations regarding the transport, use, and disposal of hazardous materials.

Operation of the project site as a residential development would not involve the use of significant quantities of hazardous materials that would create a cumulatively considerable hazardous condition to the public or environment through routine transport, use, or disposal. Like the project, the operation of cumulative projects located in the vicinity of the project site would also be subject to the County's Household Hazardous Waste Program, and adherence to manufacturers' instructions on the use and disposal of these household materials would minimize any impact related to the routine transport, use, or disposal of day-to-day operational use of hazardous materials.

With continued regulatory compliance, the project, when combined with past, present, and reasonably foreseeable future projects, would not contribute to a significant cumulative hazard and hazardous material impact associated with the routine transport, use, or disposal of hazardous materials.

Therefore, the project's contribution to cumulative hazard and hazardous material impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.9 Hydrology and Water Quality

The project site and the off-site improvements are located in the Lower South Fork American River watershed and Folsom Reservoir–South Fork American River subwatershed. The western slope of El Dorado County does not contain groundwater basins. Groundwater conditions in the foothills are highly variable spatially and temporally based on geology and fractured bedrock conditions. Surface water and groundwater quality in the region is influenced by land use and development conditions in the area.

The El Dorado County General Plan EIR identified significant and unavoidable hydrology and water quality impacts associated with increased groundwater demand and water quality impacts from wastewater treatment plant discharges under project and cumulative conditions (El Dorado County 2004). The El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR also identified significant and unavoidable hydrology and water quality impacts associated with groundwater use under project and cumulative conditions (El Dorado County 2015). The approved and proposed development in the project area identified in Table 4-2 would further contribute to identified cumulative impacts anticipated under the General Plan and the Targeted General Plan Amendment/Zoning Ordinance Update.

As identified in Section 3.9, "Hydrology and Water Quality," the project would have no project impacts and make no contribution to cumulative impacts related to inundation by floods, tsunamis, or seiches, because the project site is not located in an area vulnerable to floods, tsunamis, or seiches. In addition, the project would not conflict with a sustainable groundwater management plan, because it would not require the use of groundwater or substantially inhibit recharge. Thus, the project would not contribute to these cumulative impacts.

IMPACT 4-13: CONTRIBUTE TO CUMULATIVE WATER QUALITY IMPACTS

A cumulative impact would occur if the project, together with the cumulative projects identified in Table 4-2, would result in a regional impairment of water quality. As described in the discussion of Impact 3.9-1, project construction would be subject to coverage under the State Water Resources Control Board National Pollutant Discharge Elimination System Construction General Permit (Order WQ 2022-0057-DWQ), which requires that a stormwater pollution prevention plan (SWPPP) be prepared and implemented. The SWPPP would include specific construction best management practices that include temporary erosion control measures (e.g., installation of straw wattle, silt fence, and erosion control blanket) to reduce sedimentation and turbidity of surface runoff from disturbed areas on the project site, as well as leak and spill protection for heavy equipment and hazardous material use. The project would also be required to comply with the County's Stormwater Management Plan and Stormwater Quality Ordinance (Ordinance No. 5022), which include requirements for construction water quality control. Construction of the cumulative projects identified in Table 4-2 would be required to comply with the same regulations and requirements related to water quality protection.

The project involves construction and operation of eight on-site detention/water quality basins (as shown in Figure 2-9a and 2-9b) that would capture and treat runoff consistent with water quality standards in accordance with the El Dorado County West Slope Development and Redevelopment Standards and Post Construction Storm Water Plan Requirements. The project site design also includes disconnected pavement and open space, which are additional low-impact development (LID) measures to address water quality. The LID water quality treatment measures would be designed to control the quality of stormwater runoff from the site before discharge to the surrounding waters, as required by the El Dorado County West Slope Development and Redevelopment Standards and Post Construction Storm Water Plan Requirements. Typical measures could include the use of biofiltration planters, biofiltration basins, infiltration areas, permeable paving, localized rainwater harvesting, where feasible, and other treatment measures as approved by the County. Similar to the project, cumulative projects (e.g., Bass Lake Hills Specific Plan) would be required to comply with the El Dorado County West Slope Development and Redevelopment Standards and Post Construction Storm Water Plan Requirements to ensure that operation of the projects would not result in significant water quality impacts.

Compliance with existing regulations and provision of drainage facilities would ensure that the project, in combination with the cumulative projects, would not result in an incremental effect that would result in a significant cumulative impact related to water quality. Therefore, the project's contribution to cumulative water quality impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-14: CONTRIBUTE TO CUMULATIVE DRAINAGE AND FLOODING IMPACTS

A cumulative impact would occur if the project, together with the cumulative projects identified in Table 4-2, would result in a regional impairment of water quality due to drainage change and flooding. As addressed in the discussion of Impact 3.9-3, a storm drainage evaluation was conducted based on the proposed storm drainage facilities, as required by the County's Drainage Manual. The evaluation concluded that the proposed detention basins would direct flows to existing channels at rates below those of pre-development stormwater peak flows and would therefore reduce the existing rate of surface water flow from the project site. Development of the proposed off-site improvements would not result in a net increase in impervious surface area that could alter drainage patterns and result in on-site or off-site flooding. Therefore, with compliance with existing regulations, implementation of the project would not result in altered drainage patterns that could result in on-site or off-site flooding or impeded or redirected flood flows. The project and the proposed off-site improvements are located in areas of minimal flood hazards and not within a 100-year flood zone. Implementation of the cumulative projects would be subject to the County's Drainage Manual and the existing regulations and policies identified in Section 3.9.1 of the Draft EIR to prevent flood hazards and maintain natural drainage features. Specifically, the County's Drainage Manual requires

preparation of hydrologic and hydraulic analysis of proposed drainage facilities to ensure appropriate runoff design and controls are in place. In addition, El Dorado County General Plan Policies 5.4.1.1 and 5.4.1.2 require prevention of increased flood hazards and protection of natural drainage patterns.

Compliance with existing regulations and provision of drainage facilities would ensure that the project, in combination with the cumulative projects, would not result in an incremental effect that would result in a significant cumulative impact related to water quality due to drainage change or flooding. Therefore, the project's contribution to cumulative drainage and flooding impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.10 Land Use, Planning, and Agriculture and Forestry Resources

The cumulative setting for these resource areas consists of planned land uses and development under the El Dorado County General Plan for the western slope of the County, as well as reasonably foreseeable projects identified in Table 4-2.

The El Dorado County General Plan EIR identified significant and unavoidable land use and agricultural impacts associated with the loss of Important Farmland and Williamson Act contract lands and land use compatibility impacts on new and expanded solid waste, hazardous material, energy, and school facilities under project and cumulative conditions (El Dorado County 2004). The El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR also identified significant and unavoidable land use and agricultural impacts associated with the loss of Important Farmland and Williamson Act contract lands and land use compatibility impacts project and cumulative conditions (El Dorado County 2015).

IMPACT 4-15: CONTRIBUTE TO CUMULATIVE LAND USE AND PLANNING IMPACTS

As identified in Section 3.10, "Land Use, Planning, and Agriculture and Forestry Resources," the project site and surrounding area consist of residential and rural residential uses, and the project would not conflict with existing agricultural or forest production uses. The project site is not designated as Important Farmland under CEQA or zoned for agricultural uses, and it does not contain forest conditions appropriate for timber production and is not zoned for timber production uses. Thus, the project would not contribute to these cumulative impacts.

The project would not physically divide an established community. The project site is adjacent to existing communities in the surrounding area. The project does not involve rerouting any roads or altering access to nearby neighborhoods.

Although the project would amend the General Plan Land Use Diagram, the proposed residential density and project design would be consistent with the General Plan's Plan Strategies and Plan Concepts, as well as Objective 2.1.1. and associated Policy 2.1.1.2, regarding the placement of urban-type development in the El Dorado Hills Community Region. In addition, the project design includes open space buffers and estate lot sizes that range from 5.0 to 5.7 acres to buffer and transition project residential densities with surrounding land uses (see Figures 2-4 and 2-5), consistent with General Plan Policy 2.2.5.21 and Objective 2.5.1 and associated Policy 2.5.1.1. As identified in the discussion of Impact 3.10-1, either the project is consistent with General Plan policy provisions that address an environmental impact, or mitigation measures have been identified in Sections 3.1 through 3.17 to mitigate environmental impacts consistent with General Plan objectives and policies.

Therefore, the project's contribution to cumulative land use and planning impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.11 Noise and Vibration

Noise and vibration impacts associated with future development under the project are analyzed in Section 3.11, "Noise and Vibration." Noise and vibration impacts arise from and reflect project-specific characteristics and conditions, including distance to noise sources, barriers between land uses and noise sources, and other factors. Noise impacts are typically site specific and combine with other noise impacts only when cumulative development occurs close by or when traffic-related noise from a project contributes to traffic volumes on roadways in the project area. For this reason, the geographic scope of the cumulative impact analysis for noise and vibration is the project vicinity.

Both the El Dorado County General Plan EIR and Targeted General Plan Amendment/Zoning Ordinance Update EIR identified significant and unavoidable noise impacts associated with construction noise, traffic noise, exposure of sensitive noise receptors to stationary noise sources, and aircraft noise under project and cumulative conditions (El Dorado County 2004, 2015). The approved and proposed development in the project area identified in Table 4-2 would further contribute to identified cumulative impacts anticipated under the General Plan and the Targeted General Plan Amendment/Zoning Ordinance Update.

The project site is not located within 2 miles of an airport. The airport nearest to the project site is Cameron Park Airport, located approximately 2.8 miles southeast of the project site. The project site is outside the Cameron Park Airport's 55- to 60-decibel (dB) community noise equivalent level noise contour. Therefore, the project would not expose people residing or working in the project area to excessive airport noise levels. Thus, the project would not contribute to cumulative aircraft exposure impacts.

Implementing the project would not result in development of any major sources of ground vibration, such as a commercial railway or passenger rail transit line. No existing or planned land uses in the project area would be sources of substantial and permanent ground vibration. Therefore, development facilitated by the project would not result in long-term operational activities associated with permanent or substantial levels of ground vibration. Thus, the project would not contribute to or create cumulative operational vibration impacts.

IMPACT 4-16: CONTRIBUTE TO CUMULATIVE CONSTRUCTION NOISE AND VIBRATION IMPACTS

Construction-related noise and vibration are typically considered localized impacts that affect only receptors close to construction activities. Therefore, unless construction of cumulative projects, including construction associated with the project, occurs on sites close to one another (i.e., less than 500 feet apart) and at the same time, noise and vibration from individual construction projects have little chance of combining to create cumulative impacts. There are no reasonably foreseeable projects within 500 feet of the project site that would be an additional source of construction noise or vibration. Therefore, the project's contribution to cumulative construction noise and vibration impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-17: CONTRIBUTE TO CUMULATIVE TRAFFIC NOISE IMPACTS

With respect to mobile-source noise levels, the cumulative context includes local roadways likely to be affected by project-related vehicles. As discussed in Section 3.11, "Noise and Vibration," project-related traffic increases would not result in a substantial noise increase on affected roadways. Traffic noise was also modeled under the cumulative context. Table 4-3 shows an increase in traffic noise between the cumulative no project scenario and the cumulative with project scenario.

Table 4-3 Summary of Modeled Traffic Noise Levels under Cumulative No Project and Cumulative Plus Project Conditions

Roadway	Segment	Noise (dB L _{dn} /CNEL) at 50 feet from Roadway		Change
		Cumulative No Project	Cumulative Plus Project	
El Dorado Hills Boulevard	Francisco Drive to Green Valley Road	64.5	64.7	0.2
El Dorado Hills Boulevard	Harvard Way to Francisco Parkway	68.9	69.0	0.1
El Dorado Hills Boulevard	Wilson Boulevard to Harvard Way	70.5	70.5	0.0
El Dorado Hills Boulevard	Serrano Parkway to Wilson Boulevard	70.2	70.2	0.0
El Dorado Hills Boulevard	Saratoga Way to Serrano Parkway	71.1	71.2	0.0
El Dorado Hills Boulevard	South end of Saratoga Way/US 50 WB ramp to north end of Saratoga Way/Park Drive	71.1	71.2	0.0
Latrobe Road	US 50 EB ramp to US 50 WB ramp	72.6	72.7	0.0
Silva Valley Parkway	Tong Road to Serrano Parkway	69.5	69.6	0.1
Silva Valley Parkway	Serrano Parkway to Harvard Way	68.3	68.4	0.1
Silva Valley Parkway	Harvard Way to Appian Way	65.9	66.1	0.2
Silva Valley Parkway	Appian Way to Green Valley Road	65.4	65.6	0.2
Green Valley Road	Sophia Parkway to Francisco Drive	73.8	73.9	0.2
Green Valley Road	Francisco Drive to El Dorado Hills Boulevard	72.2	72.5	0.3
Green Valley Road	El Dorado Hills Boulevard to Silva Valley Parkway	71.9	72.5	0.6
Green Valley Road	Silva Valley Parkway to Loch Way	70.5	71.1	0.6
Green Valley Road	Loch Way to Malcolm Dixon Cutoff	70.3	71.0	0.7
Green Valley Road	Malcolm Dixon Cutoff to Malcolm Dixon Road	70.3	70.9	0.7
Green Valley Road	Project Driveway 2 to Deer Valley Road	70.2	70.4	0.3
Green Valley Road	Deer Valley Road to Silver Springs Parkway	70.5	70.7	0.2
Green Valley Road	Silver Springs Parkway to Bass Lake Road	70.2	70.3	0.1
Green Valley Road	Bass Lake Road to Cambridge Road	70.7	70.8	0.1
Green Valley Road	Cambridge Road to Cameron Park Drive	69.8	70.1	0.3
Green Valley Road	Malcolm Dixon Road to Project Driveway 1	70.3	70.7	0.4
Green Valley Road	Project Driveway 1 to Project Driveway 2	70.2	70.8	0.6
Francisco Drive	Green Valley Road to El Dorado Hills Boulevard	67.7	67.8	0.1
Harvard Way	El Dorado Hills Boulevard to Silva Valley Parkway	64.0	64.1	0.1
Serrano Parkway	El Dorado Hills Boulevard to Silva Valley Parkway	66.9	66.9	0.0

Notes: CNEL = community noise level equivalent; dB = weighted decibels; EB = east-bound; L_{dn} = day-night noise level; WB = west-bound.

Source: Modeled by Ascent in 2024; based on traffic data provided by Kimley-Horn in 2022.

As shown in Table 4-3, none of the studied roadway segments would have an increase of 1.5-dB day-night noise level (L_{dn}) or more; therefore, all would meet the County's most stringent standard related to incremental noise increases designed to protect sensitive land uses from excessive traffic noise levels (General Plan Policy 6.5.1.12). Additionally, as detailed in Section 3.11, "Noise and Vibration," a 3-dB increase, or doubling of noise, would be perceptible to the human ear based on guidance from the California Department of Transportation. Thus, because none of the studied roadway segments would have a 3-dB increase or more, project-generated traffic noise in the cumulative scenario would not result in an adverse effect on sensitive receptors in the vicinity of the project site.

Therefore, the project's contribution to cumulative traffic noise impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-18: CONTRIBUTE TO CUMULATIVE OPERATIONAL NOISE IMPACTS

Similar to construction-related noise impacts, stationary source noise impacts are generally localized. As a result, the context for cumulative stationary noise sources is within 500 feet of the project site. The project would include new stationary heating, ventilation, and air conditioning (HVAC) equipment and surface parking lots. However, noise from these sources would be localized and would not combine with noise from other projects. As discussed for Impact 3.11-3, noise from these sources is a consideration only within the immediate vicinity of the project site, at distances less than 100 feet from the sources. Additionally, Mitigation Measure 3.11-3 would require an acoustical assessment to be prepared before HVAC equipment is purchased and installed to ensure that HVAC noise levels would comply with the stationary noise standard of 55-dB equivalent continuous sound level (L_{eq}) and 70-dB maximum sound level (L_{max}) at receiving sensitive receptor property lines. Therefore, operational noise sources on the project site would not combine with noise from other area sources to result in a substantial increase in ambient noise.

Therefore, the project's contribution to cumulative operational noise impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.12 Population and Housing

For population and housing, the cumulative setting encompasses El Dorado County and the El Dorado Hills Community. Table 3.12-1 in Section 3.12, "Population and Housing," presents the regional growth forecast prepared by SACOG as part of the 2020 MTP/SCS. According to SACOG's calculations, approximately 93,742 new residents are expected in the six-county region by 2040.

The El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR identified a significant and unavoidable impact associated with the inducement of substantial population growth under project and cumulative conditions (El Dorado County 2015). The El Dorado County General Plan EIR identified no significant and unavoidable population and housing impacts. The approved and proposed development in the project area identified in Table 4-2 would further contribute to identified cumulative impacts anticipated under the General Plan.

IMPACT 4-19: CONTRIBUTE TO CUMULATIVE POPULATION AND HOUSING IMPACTS

As identified in Section 3.12, "Population and Housing," no residential units would be permanently removed by the project, nor does the project propose or involve any actions that would displace substantial numbers of people. Thus, the project would not contribute to or create cumulative displacement impacts.

As discussed in Section 3.12, "Population and Housing," the project has the potential to add a total of 379 residential lots to the existing housing stock in El Dorado County and between 854 to 1,077 residents. However, El Dorado County anticipates an annual growth rate of approximately 0.9 percent per year between 2020 and 2030, or approximately 1,724 new residents per year. By 2040, El Dorado County anticipates a total population of 225,419, an increase of 36,413 from its current population of 189,006. As a result of an anticipated population increase, the County also would anticipate an increase in available housing added to the housing stock. Buildout of the proposed project in conjunction with buildout of other projects in the area (see Table 4-2) would result in an increase of additional population and employment opportunities.

The project site is included in SACOG's 2020 MTP/SCS as an Established Community Type and has therefore been accounted for in the growth pattern estimation for the region (SACOG 2019). The 2020 MTP/SCS forecasts approximately 2,330 new housing units in El Dorado Hills and 4,070 new housing units in the Established Community Type in El Dorado County. The project would account for approximately up to 16 percent of the total new housing units in El Dorado Hills by 2040. The project site is located in the El Dorado Hills Community Region, which by definition anticipates residential growth under the General Plan. The extension of infrastructure onto the project site, including roadways and utilities that would serve the proposed development, would not contribute to or cause additional growth to occur outside the community region boundaries or elsewhere within the vicinity of the project site, because the project site is surrounded by residential development. The proposed project would not induce substantial unanticipated population growth in the County, and the population increase would fall within the projected increase identified in the County's Housing Element Update.

Therefore, the project's contribution to cumulative population growth impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.13 Public Services and Recreation

The cumulative setting associated with fire protection, law enforcement, public schools, and park/recreation services consists of the El Dorado Hills Fire Department (EDHFD) service area, El Dorado County Sheriff's Office West Slope patrol service area, Rescue Union School District and El Dorado Union High School District service areas, and El Dorado Hills Community Services District service area, respectively. Increases for these public services that would occur under cumulative conditions would occur as growth planned under the El Dorado County General Plan, as well as foreseeable projects located within the service area boundaries of the projects identified in Table 4-2.

The El Dorado County General Plan EIR identified significant and unavoidable impacts associated with fire incidents and fire hazards under project and cumulative conditions (El Dorado County 2004). No significant and unavoidable public service impacts were identified in the El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR. The approved and proposed development in the project area identified in Table 4-2 would further contribute to identified cumulative impacts anticipated under the General Plan.

IMPACT 4-20: CONTRIBUTE TO CUMULATIVE FIRE PROTECTION IMPACTS

As identified in the discussion of Impact 3.13-1, the project is not expected to affect the ability of the fire department to meet the minimum required response time. In addition, the project proposes to include three gated emergency access routes to the site, El Dorado Irrigation District has required that the project include off-site infrastructure improvements to obtain the mandated fire flow water pressure design, and additional wildfire and emergency protection standards are built into the project design to address its contribution to cumulative fire service needs. Further, EDHFD charges a development fee based on square footage that must be paid to EDHFD for any development within its jurisdiction (Standard #A-001). Fees are collected to support the fire department's capacity to serve the development. Other planned and proposed projects within the EDHFD service area would be required to comply with EDHFD standards and pay development fees to address their impact on fire protection services.

Therefore, the project's contribution to cumulative fire protection services impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-21: CONTRIBUTE TO CUMULATIVE LAW ENFORCEMENT IMPACTS

As identified in the discussion of Impact 3.13-2, the increased population and development on the project site associated with implementing the project would increase demand for police protection services. However, the increase in demand is expected to be incremental and would not contribute to the need for construction of a new station. The gated emergency access roads on the project site would be available for use by the El Dorado County Sheriff's Office in the event of emergency evacuations or other security needs. Funding considerations associated with future increased police protection staffing would be addressed by the County Board of Supervisors.

Therefore, the project's contribution to cumulative law enforcement services impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-22: CONTRIBUTE TO CUMULATIVE PUBLIC SCHOOL IMPACTS

As noted above, the geographic setting for cumulative public school impacts is the Rescue Union School District and El Dorado Union High School District service areas, which include the communities of Cameron Park, El Dorado Hills, Shingle Springs, Rescue, Diamond Springs, Cold Springs, Coloma, Camino, Pollock Pines, and the city of Placerville. As growth occurs in the two school service areas, demand on the school districts' services and facilities increases. The cumulative demand in the two school districts is expected to increase as a result of implementing the project, as well as other population growth in these school districts.

Overall trends indicate declining enrollment in the Rescue Union School District and El Dorado Union High School District service areas, and implementing the project would not result in a significant cumulative impact on the schools (RUSD 2023; SchoolWorks 2018). Development associated with the project, and other reasonably foreseeable projects proposed in the school districts' service areas (Table 4-2), would be required to pay school impact fees to assist the school districts with meeting the increased demand for school services. Government Code Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed under Section 17620 of the Education Code is deemed to be full and complete mitigation of the impact for the planning, use, development, or provision of adequate school facilities. Additionally, the school districts conduct their own environmental analysis to address proposals for new facilities and address project-level adverse environmental impacts on a case-by-case basis. Other planned and proposed projects would be required to pay school impact fees to address their impact on fire public schools.

Therefore, the project's contribution to cumulative public school service impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-23: CONTRIBUTE TO CUMULATIVE PARK AND RECREATION IMPACTS

As identified in the discussion of Impact 3.13-4, the El Dorado Hills Community Services District (CSD) and the El Dorado County General Plan use a standard of 5 acres per 1,000 residents to assess the adequacy of park access to residents. The project would offset the increase on park demand associated with its development through the proposed 4-acre park site and payment of parkland dedication fees under Chapter 120.12, Conditions and Requirement, for parks development to meet park dedication requirements consistent with General Plan Objective 9.1.1 and associated Policy 9.1.1.1 and Objective 9.2.2 and associated Policy 9.2.2.2. The project would also annex into the El Dorado Hills CSD and would provide funding for park and recreation services and be subject to service fees. Other planned and proposed projects within the El Dorado Hills CSD would be required to comply with park dedication requirements to address their demand on park facilities.

Therefore, the project's contribution to cumulative public park and recreation impacts **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.14 Transportation

The geographic context for cumulative impacts related to transportation is the unincorporated area of the County. As described in Section 3.14, "Transportation," in 2018, the Governor's Office of Planning and Research (OPR) published its Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory), which provides guidance for VMT analysis. The Office of Administrative Law approved the updated State CEQA Guidelines and, as of July 1, 2020, implementation of CCR Section 15064.3 of the updated State CEQA Guidelines applies statewide.

While VMT had not yet been adopted as the metric by which to analyze traffic at the time of certification of the El Dorado County General Plan EIR and Targeted General Plan Amendment/Zoning Ordinance Update EIR, those EIRs generally evaluated VMT. The General Plan EIR concluded that, under all alternatives and scenarios analyzed, implementation of the General Plan would result in an increase in countywide VMT per capita from about 27 miles to approximately 32 miles in 2025 (El Dorado County (El Dorado County 2003)). The Targeted General Plan Amendment/Zoning Ordinance Update EIR identified that changes in regional travel demand that are projected to occur for each study scenario include an increase in daily vehicle trips, VMT, and vehicle hours (El Dorado County 2014).

IMPACT 4-24: CONTRIBUTE TO CUMULATIVE IMPACTS ON TRANSIT, BICYCLE, AND PEDESTRIAN FACILITIES

As described in the discussion of Impact 3.14-1, the project would include the construction of pedestrian facilities, thus enhancing active transportation mobility in the vicinity of the project site. Additionally, the project would not adversely affect any existing or planned transit, bicycle, or pedestrian facilities in the vicinity of the project site. Other planned development and reasonably foreseeable projects (Table 4-2) in the region would be subject to individual environmental analysis and mitigation as applicable and would be required to comply with federal, state, and local requirements related to transit, bicycle, and pedestrian facilities.

Therefore, the project's contribution to cumulative impacts on transit, bicycle, and pedestrian facilities **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-25: CONTRIBUTE TO CUMULATIVE IMPACTS ON VEHICLE MILES TRAVELED

Because the project is not captured in the County's future land use projections, its cumulative impacts are analyzed in a manner consistent with 2018 conditions. OPR recommends that VMT thresholds not be recalculated for cumulative conditions; thus, the County threshold for cumulative conditions is consistent with the threshold shown in Table 3.14-2 (i.e., 19.1 VMT per capita). To determine the cumulative residential VMT per capita produced by the project, the home-based VMT for the project Traffic Analysis Zone (TAZ) (TAZ 630) for cumulative (2040) conditions was totaled and divided by the total residential population for the project (see Appendix D).

As shown in Table 4-4, the project's cumulative VMT per capita is 19.7, which is above the County threshold of significance of 19.1 VMT per capita. Therefore, the cumulative VMT impact from the project would be cumulatively considerable. Although implementation of Mitigation Measure 3.14-2 could assist in reducing the project's cumulative VMT impact, the effectiveness of VMT reduction strategies and the extent to which VMT would be reduced are not certain.

Therefore, the project's contribution to cumulative VMT impacts **would be cumulatively considerable and significant and unavoidable**.

Table 4-4 Cumulative Vehicle Miles Traveled

Scenario	VMT per Capita
County Average (2018)	22.5
Threshold (15% below 2018 County Average VMT per Capita)	19.1
2040 Plus Project	19.7
VMT per Capita as a % of threshold	103%

Notes: % = percent; VMT = vehicle miles traveled.

Source: Kimley-Horn 2023 (Appendix I of this Draft EIR).

Mitigation Measures

No additional feasible mitigation measures are available to address this cumulative impact.

IMPACT 4-26: CONTRIBUTE TO CUMULATIVE GEOMETRIC DESIGN HAZARD IMPACTS

In general, transportation hazards are site specific and not cumulative in nature. However, cumulative impacts on transportation hazards from project-generated construction effects could result if other future planned construction activities were to take place close to the project site and cumulatively combine to exacerbate the construction-related impacts of the project. As described for Impact 3.14-3, although the project would be subject to and designed in accordance with standards listed in the County Design and Improvement Standards Manual and would be reviewed by the County before implementation to address potential project safety hazards, construction activities could increase transportation-related hazards. Thus, implementation of Mitigation Measure 3.14-3 would require the project contractor to develop and submit a traffic control plan to demonstrate appropriate handling of construction vehicles and materials throughout the project area, as well as the safe navigation of vehicles, bicyclists, and pedestrians affected by construction. Other projects in the vicinity of the project site would also be required to comply with County standards and demonstrate to County staff that they would not contribute to construction-related transportation hazard impacts, thus minimizing the potential for cumulative transportation-related hazards.

Therefore, the project's contribution to cumulative impacts on design hazards **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-27: CONTRIBUTE TO CUMULATIVE EMERGENCY ACCESS IMPACTS

Cumulative impacts associated with emergency access or road design are primarily localized effects. For this reason, the cumulative projects with the potential to result in a significant cumulative impact associated with construction-phase emergency access and road design features are the projects located in the vicinity of the project site. Implementation of Mitigation Measure 3.14-3 would require the project contractor to develop and submit a traffic control plan to demonstrate appropriate handling of construction vehicles and materials throughout the project area. As described in Chapter 2, "Project Description," the project would include an emergency access/egress EAE at Lima Way to serve as a secondary means of emergency access and evacuation that would be gated but designed to be accessible by project residents during an evacuation order. There would also be two emergency vehicle access (EVA) road connections at Marden Drive and at East Green Springs Road (to the south) that would be stubbed to the property line for emergency vehicle use. These accesses would meet the design standards for gated developments as described in Section 130.30.090(D) of the El Dorado County Code of Ordinances and the El Dorado Hills Fire Department Ordinance 2022-01. Other planned and proposed projects would be required to comply with State, County, and EDHFD standards for the provision of adequate emergency access.

Therefore, the project's contribution to cumulative impacts on emergency access **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.15 Utilities and Service Systems

The cumulative setting for utility and service impacts consists of the El Dorado Irrigation District's (EID's) service area for water and wastewater service and the County for solid waste management. Environmental impacts associated with infrastructure improvements are project- and site-specific impacts that are addressed as part of the project's impacts addressed in this chapter, as well as in Sections 3.1 through 3.17.

The El Dorado County General Plan EIR identified significant and unavoidable impacts associated with water supply and wastewater flows and related infrastructure under project and cumulative conditions (El Dorado County 2004). The El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR also identified significant and unavoidable water supply impacts under project and cumulative conditions (El Dorado County 2015).

IMPACT 4-28: CONTRIBUTE TO CUMULATIVE WATER SUPPLY IMPACTS

As discussed for Impact 3.15-2, EID states that 387 equivalent dwelling units (EDUs) (approximately 271 acre-feet) of water supply would be required annually to accommodate the proposed residential uses, clubhouse, park site, and project site landscaping. The 2022 Water Supply and Demand Report provides updated calculations and reports that in 2022, approximately 16,910 EDUs of water supply were available in the El Dorado Hills water supply region (EID 2022). Tables 3.15-2 through 3.15-4 in Section 3.14, "Utilities and Service Systems," provide a comparison of current and secured water supply from 2025 to 2045. Central Valley Project Fazio Water of 7,500 acre-feet per year (afy) would be available starting in 2035. Future water demands identified in these tables include the development of 7,050 new residential units between 2020 and 2045 in the El Dorado Hills water supply region based on the EID 2020 Urban Water Management Plan (2020 UWMP). As identified in these tables, additional water supply above existing and anticipated water demands would be available to accommodate the project and additional growth in EID's service area through the 2045, summarized as follows:

- ▶ normal year: 31,030–34,980 afy,
- ▶ single dry year: 21,610–24,130 afy, and
- ▶ multiple dry years: 11,110–22,470 afy.

The 2020 UWMP estimates that EID will have a total of 53,073 water connections by 2045 and that the population of the El Dorado Hills region of the EID's service area is anticipated to grow by 5,769 residential units between 2025 and 2045 (EID 2021). Table 2-5 of the 2020 UWMP shows that several reasonably foreseeable projects identified in Table 4-2 (Creekside Village Specific Plan, Lime Rock Valley Specific Plan, and Village of Marble Valley Specific Plan), along with the proposed project, were factored into the water service reliability portion of the UWMP.

Based on the water availability identified in the 2020 UWMP under multiple-dry-year conditions, EID has additional water capacity to support 25,250 single-family residential units (using EID's 0.44-afy water demand factor for new single-family customers in the El Dorado Hills region of EID's service area) (EID 2021).

Therefore, the project's contribution to cumulative impacts on water supply **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-29: CONTRIBUTE TO CUMULATIVE WASTEWATER SERVICE IMPACTS

The discussion of Impact 3.15-3 states that the project's anticipated wastewater generation of 86,640 gallons per day, combined with a current average dry weather flow (ADWF) of 2.6 million gallons per day (mgd), would be within EID's

El Dorado Hills Wastewater Treatment Plant's (EDHWWTP's) permitted capacity of 4.0 mgd. As further discussed in Section 3.15, "Utilities and Service Systems," EID's Integrated Water Resources Master Plan predicts total wastewater flows of 5.45 mgd for the El Dorado Hills system after full buildout is complete in the service area (EID 2013). The future wastewater flows would be beyond the EDHWWTP's capacity. However, EID has planned expansion projects for the system. In 2013, the EDHWWTP was expanded to manage an ADWF of 4.0 mgd, and a subsequent expansion is planned to manage the predicted future flows (EID 2013: 151). EID's Capital Improvement Plan identifies project proposals to continue to expand EDHWWTP's capacity to treat future wastewater flows (EID 2023). The project and other future development in the EID service area would be required to pay connection and service fees that would fund their fair share of future conveyance and wastewater treatment facility improvements to meet future service demands.

Therefore, the project's contribution to cumulative impacts on wastewater service **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

IMPACT 4-30: CONTRIBUTE TO CUMULATIVE SOLID WASTE IMPACTS

The project is estimated to generate approximately 3.3 tons per day upon buildout. This waste would be collected by El Dorado Disposal, transferred through the Diamond Springs Materials Recovery Facility (MFR), and then delivered to the Potrero Hills Landfill. The Diamond Springs MFR, which is used to transfer landfill and recycled materials to larger facilities, uses less than one-quarter of its processing capacity per day and would be able to accommodate the construction and daily waste generated by the project, as well as accommodate anticipated growth in the County. The Potrero Hills Landfill's daily permitted capacity is 4,330 tons per day, and the current average daily disposal rate is 2,700 tons per day (CalRecycle 2023). The estimated closure date for the Potrero Hills Landfill is 2062 (ICF 2022). The project would produce less than one-half of 1 percent of the 4,330-ton permitted daily throughput for the facility. This small increase in solid waste would not consume a substantial proportion of the available permitted capacity and would not trigger the need to expand the Potrero Hills Landfill under either project or cumulative conditions. These facilities would be expanded should future growth require expansion.

In addition, El Dorado Disposal now offers biweekly organic waste collection services to residents as part of implementation of Senate Bill 1383. As the program gains popularity and as residents become more familiar with it, more waste will be diverted from the landfill per capita. The project and cumulative development would be required to comply with federal, state, and local statutes and regulations related to solid waste and solid waste reduction plans identified in Section 3.15, "Utilities and Service Systems."

Therefore, the project's contribution to cumulative impacts on solid waste service **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.16 Tribal Cultural Resources

The geographic scope for the analysis of cumulative impacts to archaeological resources, tribal cultural resources, and human remains is the historic lands of the Nisenan or Southern Maidu people. The Nisenan territory extended to the Bear River and south of the South or Middle Fork of the Cosumnes River. The historic lands of the Nisenan people have been affected by development since the arrival of the first Spanish settlers in the late 1770s. The Gold Rush of the 1850s, the economic and agricultural development of El Dorado County, and commerce and trade within the historic communities associated with Green Valley has also impacted these lands. In addition, both the Sacramento-Coloma Road and the Sacramento and Placerville Wagon Road developed from a circuitous trail used by emigrants and miners between 1848 and 1850 impacted Nisenan lands. These activities have resulted in an existing significant adverse effect on tribal cultural resources.

Assembly Bill 52 was not in effect at the time of the preparation of the El Dorado County General Plan EIR and Targeted General Plan Amendment/Zoning Ordinance Update EIR. However, both EIRs did evaluate potential impacts to archaeological resources that could include tribal cultural resources. Although the El Dorado County General Plan EIR did not identify any significant and unavoidable archeological resource impacts, the El Dorado County Targeted General Plan Amendment/Zoning Ordinance Update EIR identified significant and unavoidable impacts on archaeological resources under project and cumulative conditions (El Dorado County 2015).

The approved and proposed development in the project area identified in Table 4-2 would further contribute to identified cumulative impacts to archaeological resources (as well as tribal cultural resources) anticipated under the General Plan Amendment/Zoning Ordinance Update.

IMPACT 4-31: CONTRIBUTE TO CUMULATIVE TRIBAL CULTURAL RESOURCE IMPACTS

As identified in Section 3.16, "Tribal Cultural Resources," no known tribal cultural resources have been identified within the boundaries of the proposed project site. However, project-related earth-disturbing activities could damage undiscovered tribal cultural resources. The project, in combination with other developments in the region (Table 4-2), could contribute to ongoing substantial adverse changes in the significance of tribal cultural resources resulting from urban development and conversion of natural lands. Cumulative development could result in potentially significant tribal cultural resource impacts. Implementation of Mitigation Measure 3.16-1a and 3.16-1b would ensure that the proposed project's contribution to cumulatively significant tribal cultural resources impacts would not be considerable by level by requiring the performance of professionally accepted and legally compliant procedures in the event of a discovery, as well as the protection of any previously undocumented significant archaeological resources and establishing protective fencing around P-55-5445's rock outcrop. With implementation of Mitigation Measure 3.16-1a and 3.16-1b, the project's contribution to these impacts would be reduced to a less-than-significant level. Further, cumulative development would be required to implement similar mitigation to avoid/reduce impacts to tribal cultural resources.

Therefore, the project's contribution to cumulative impacts on tribal cultural resources **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

4.4.17 Wildfire and Evacuation

As identified in Section 3.17, "Wildfire and Evacuation," wildland fires affect grass, forest, and brush lands, as well as any structures located within them. 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.

As identified in the El Dorado County Local Hazard Mitigation Plan, El Dorado County and the incorporated cities have a variety of systems and procedures for warnings and evacuation activities. Specific warning and evacuation systems and procedures include Code Red alert system, dam protocols, evacuation recommendations, and shelter in place.

IMPACT 4-32: CONTRIBUTE TO CUMULATIVE WILDFIRE AND EVACUATION IMPACTS

As identified in Impact 3.17-2 through 3.17-4, fire protection and prevention measures for project construction, operation, and maintenance of open space areas are addressed in the Generations at Green Valley Wildland Urban Interface Fire Protection Plan (Fire Safe Plan or FSP) provided in Appendix J. The FSP addresses potential impacts resulting from wildland fire hazards and identifies measures necessary to mitigate these hazards in conformance with CCR Title 14, Sections 1270 through 1276 (Fire Safe Regulations), CCR Title 24, Part 9, Section 4903 (Plans), El Dorado County Fire Protection Standard W-002 (Wildland Interface Fire Protection Plans), and El Dorado County General Plan Policy 6.2.2.2. This plan identifies fuel modification/management zones and recommends the types and methods of treatment that protect this project and its essential infrastructure. In addition, this FSP recommends enhanced fire protection measures that the project homeowner's association, and individual property owners take to reduce the probability of structural ignition during the occupancy phase of the project. The provision of defensible space and the associated reduction of vegetative fuels have specifically been found to be effective at reducing fire frequency, fire severity, and annual area burned over an extended period of time. Where treatments have occurred, the pattern of wildfire progression may be limited to low-intensity underbrush and surface burning, which can create safe conditions for firefighters to successfully suppress fires in areas near structures, or around areas of high resource value (Kim et al. 2013; Martinson and Omi 2013; Tubbesing et al. 2019). Implementation of the FSP would offset the potential for the project to increase wildfire hazards under cumulative conditions.

In addition to wildfire protection and prevention, the FSP addresses the project's proposed emergency access roads and whether the project could adversely impact or delay evacuation efforts in the project area. As identified in the FSP and Impact 3.17-1, the inclusion of the project traffic in addition to existing residential land uses in the project would not result in an adverse impact on evacuation efforts or timing. Implementation of Mitigation Measure 3.17-1 would ensure improved evacuation traffic flow along Green Valley Road by controlling traffic signals at Green Valley Road at A-Drive, Silva Valley Parkway, El Dorado Hills Boulevard, Francisco Drive, at Pleasant Grove Middle School, and Silver Springs Parkway intersections during evacuations.

The approved and proposed development in the project area identified in Table 4-2 would also be required to prepare fire safe plans to address their impact to wildfire hazards in conformance with the fire regulations identified above.

Therefore, the project's contribution to cumulative impacts on wildfire hazards and evacuation **would not be cumulatively considerable**.

Mitigation Measures

No mitigation is required for this impact.

5 ALTERNATIVES

5.1 INTRODUCTION

State CEQA Guidelines Section 15126.6(a) requires EIRs to describe:

a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible... There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states that the purpose of the alternatives analysis is as follows:

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include information about each alternative sufficient to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (Section 15126.6[d]).

The State CEQA Guidelines further require that the “no project” alternative be considered (Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR “shall also identify an environmentally superior alternative among the other alternatives” (Section 15126[e][2]).

In defining “feasibility” (e.g., “feasibly attain most of the basic objectives of the project”), State CEQA Guidelines Section 15126.6(f)(1) states, in part:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project’s significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of “potentially feasible” alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency’s decision-making body—here, El Dorado County. (See CEQA Sections 21081.5, 21081[a][3].)

5.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

5.2.1 Attainment of Project Objectives

As described above, one factor that must be considered in selection of alternatives is the ability of a specific alternative to attain most of the basic objectives of the project (State CEQA Guidelines Section 15126.6[a]). Chapter 2, "Project Description," articulates the following project objectives:

- ▶ Implement the County's General Plan by directing urban/suburban growth within the El Dorado Hills Community Region located adjacent to existing residential development in order to ensure the preservation of large expanses of open space and agricultural lands within the County.
- ▶ Establish a land use pattern that maintains and enhances the character of existing rural and urban communities, emphasizing both the natural setting and built design elements.
- ▶ Develop a thoughtful design that focuses higher density residential lots toward the center of the parcel and includes large residential lots, open space, and parks throughout the project as an amenity but especially the exterior to provide significant buffers between existing residential communities.
- ▶ Provide a range of residential densities and product type to meet the needs of the changing demographics of the County, including families, empty nesters, and active adults.
- ▶ Create a residential community containing open space and a range of passive and active recreational amenities for its residents and the community.
- ▶ Establish an economically viable project that provides a fair-share contribution of infrastructure to the community through the payment of fees and/or construction of off-site transportation improvements in accordance with the County's General Plan.
- ▶ Improve emergency access and evacuation routes in the project area.
- ▶ Provide a comprehensively planned project that is sensitive to environmental issues including wetland and tree preservation.

5.2.2 Environmental Impacts of the Generations at Green Valley Project

Sections 3.1 through 3.17 and Chapter 4 of this Draft EIR address the environmental impacts of implementation of the proposed project. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the project, as identified in Chapters 3 and 4 of this Draft EIR and summarized below. If an environmental issue area analyzed in this Draft EIR is not addressed below, it is because no significant impacts were identified for that issue area.

AESTHETICS

AIR QUALITY

- ▶ The project includes a proposed General Plan Amendment, would exceed short-term construction and operational thresholds, and is not consistent with vehicle miles traveled (VMT)-reduction objectives of the applicable air quality attainment plan (AQAP) that is the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan. Mitigation (Mitigation Measures 3.2-1a, 3.2-1b, 3.2-1c, and 3.14-2) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.2-1 and 4-3).
- ▶ Construction of the project (including off-site roadway and infrastructure improvements) would result in air pollutant emissions that would exceed daily El Dorado County Air Quality Management District (EDCAQMD)

thresholds. Mitigation (Mitigation Measures 3.2-1a and 3.2-1b) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.2-2 and 4-4).

- ▶ Based on the health risk assessment prepared for the project, construction would produce substantial diesel particulate matter such that EDCAQMD's threshold for toxic air contaminant (TAC) cancer risk exposure of 10 in one million would be exceeded. The project could also result in exposure to naturally occurring asbestos from dust generation as part of project construction activities. Mitigation (Mitigation Measures 3.2-1a and 3.2-1c) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.2-4 and 4-6).

CULTURAL RESOURCES

- ▶ Project-related ground-disturbing activities could result in damage to known and other yet-undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. Mitigation (Mitigation Measures 3.3-1a through 3.3-1c) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.3-1 and 4-7).

BIOLOGICAL RESOURCES

- ▶ Development of the project site, including ground disturbance associated with construction of residences, other buildings, roads, parking areas, and off-site improvement infrastructure (e.g., pipeline, conduit, cable), could result in direct removal of special-status plants or damage that results in the eventual loss of special-status plants if they are present on the project site. Mitigation (Mitigation Measure 3.4-1) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.4-1 and 4-8).
- ▶ Project implementation would include land use conversion and development activities, including ground disturbance, vegetation removal, and overall conversion of wildlife habitat, which could result in disturbance to, injury to, or mortality of several special-status wildlife species if present, reduced breeding productivity of these species, and loss of species habitat. Mitigation (Mitigation Measures 3.4-2a through 3.4-2i) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.4-2 and 4-8).
- ▶ Project implementation would result in ground disturbance, vegetation removal, and land development, which also would result in removal of riparian habitat and sensitive natural communities. Mitigation (Mitigation Measures 3.4-3a and 3.4-3b) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.4-3 and 4-8).
- ▶ Project implementation would result in ground disturbance, vegetation removal, and land development, which would result in removal (fill) of state and federally protected wetlands. Mitigation (Mitigation Measure 3.4-4) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.4-4 and 4-8).
- ▶ Project implementation would result in removal of oak trees and oak woodlands and development in a rare plant mitigation area established by the County, which could result in conflict with the El Dorado County Oak Resources Management Plan. Mitigation (Mitigation Measures 3.4-6a and 3.4-6b) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.4-6 and 4-8).
- ▶ The project would contribute to the cumulative loss of oak woodland habitat due to the anticipated removal of approximately 56 acres of oak woodland habitat. Thus, the project's contribution to cumulative oak woodland loss identified in the Biological Resources Policy Update and ORMP Final EIR would be **cumulatively considerable and significant and unavoidable** (see Impact 4-8).

ENERGY

- ▶ Construction activities associated with the project would be temporary and would not increase long-term energy or fuel demand. Regarding operation, the project does not include any features that would reduce energy consumption or increase the use of renewable energy sources above what would be required by the California Building Code. Mitigation (Mitigation Measures 3.7-1a, 3.7-1b, and 3.14-2) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.5-1 and 4-9).
- ▶ Because natural gas is assumed to be included in the design and operation of the project, the project would conflict with the building decarbonization and fossil fuel reduction goals of both the 2022 Scoping Plan for Achieving Carbon Neutrality and the Energy Efficiency Action Plan and obstruct the implementation of these plans to achieve the state's goals of reducing fossil fuel consumption and increasing energy efficiency. Mitigation (Mitigation Measures 3.2-1d, 3.7-1a, 3.7-1b, and 3.14-2) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.5-2 and 4-9).

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

- ▶ A total of 7 five-acre lots proposed under the project would have on-site wastewater disposal systems. A on-site septic system analysis has been prepared for the project and the project would be subject to County Code of Ordinances Chapter 110.32 and the County's OWTS Manual, both of which provide performance standards for OWTS to protect the environment and public health. Nevertheless, the Septic Study recommended that additional testing be completed to confirm the suitability of proposed wastewater disposal systems onsite. Mitigation (Mitigation Measure 3.6-4) has been identified to reduce this impact to **less than significant** under project conditions (see Impacts 3.6-4).
- ▶ Although it is anticipated that the project site does not contain unique paleontological resources, the potential to discover paleontological resources on-site still exists. Mitigation (Mitigation Measures 3.6-5a and 3.6-5b) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.6-5 and 4-10).

GREENHOUSE GASES AND CLIMATE CHANGE

- ▶ The project would result in greenhouse gas (GHG) emissions during both construction and operation. Although mitigation (Mitigation Measures 3.7-1a, 3.7-1b, and 3.14-2) has been identified to address this impact, the project would result in a **significant and unavoidable impact** under project and cumulative conditions (see Impacts 3.7-1 and 4-11).

HAZARDS AND HAZARDOUS MATERIALS

- ▶ The project would require demolition of existing structures on the site and other construction activities that may contain asbestos building materials, lead paint, and other hazardous materials. Mitigation (Mitigation Measure 3.8-1a and 3.8-1b) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.8-1 and 4-12).

NOISE AND VIBRATION

- ▶ Short-term construction-generated noise levels associated with the project off-site improvements would expose nearby noise-sensitive receptors to excessive noise levels. Although mitigation (Mitigation Measure 3.11-1) has been identified to address this impact, the project would result in a **significant and unavoidable impact** under project conditions (see Impact 3.11-1). This impact would not result in a significant cumulative impact (Impact 4-16).
- ▶ The use of heavy-duty construction equipment can generate various increased vibration levels. Based on modeling conducted, vibration levels from the use of a vibratory roller could exceed the threshold of significance of 0.2 inch per second peak particle velocity for structural damage within 26 feet and 80 vibration decibels for

human annoyance within 73 feet of any vibratory roller activities. Because project features are directly adjacent to residential uses, it cannot be guaranteed that construction would not occur within 73 feet of those sensitive receptors. Mitigation (Mitigation Measure 3.11-2) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.11-2 and 4-16).

- ▶ Project-related stationary noise would consist of recreational activities and heating, ventilation, and air conditioning (HVAC) mechanical equipment. Depending on the proximity of future HVAC equipment to neighboring sensitive receptors, HVAC noise levels could potentially result in a 3- to 5-dB increase over the County's noise standard of 55 dB L_{eq} and 70 dB L_{max} (maximum sound level) for stationary noise sources. Mitigation (Mitigation Measure 3.11-3) has been identified to reduce this impact to **less than significant** under project conditions (see Impact 3.11-3). No significant cumulative stationary noise impact would occur (Impact 4-18).

TRANSPORTATION

- ▶ Implementation of the project would exceed the significance threshold of 19.1 VMT per capita for residential uses (i.e., 15 percent below the existing county VMT per capita) as identified in County Resolution 141-2020. Although mitigation (Mitigation Measure 3.14-2) has been identified to address this impact, the project would result in a **significant and unavoidable impact** under project and cumulative conditions (see Impacts 3.14-2 and 4-25).
- ▶ The project could increase transportation hazards during construction and operation. Mitigation (Mitigation Measure 3.14-3) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.14-3 and 4-26).

TRIBAL CULTURAL RESOURCES

- ▶ Ground-disturbing activities during project construction could uncover previously unknown tribal cultural resources. These activities could damage or destroy tribal cultural resources. Mitigation (Mitigation Measure 3.16-1a and 3.16-1b) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.16-1 and 4-31).

WILDFIRE AND EVACUATION

- ▶ The project could impact evacuation efforts in the project area. Mitigation (Mitigation Measure 3.17-1) has been identified to reduce this impact to **less than significant** under project and cumulative conditions (see Impacts 3.17-1 and 4-32).

5.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* [2008] 43 Cal.4th 1143, 1165–1167).

In determining which alternatives should be considered in an EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in State CEQA Guidelines Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision maker(s). (See CEQA Section 21081[a][3].) At the time of action on the proposed project, the decision maker(s) may consider evidence beyond that found in this EIR in addressing such determinations. The decision maker(s), for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint and may reject an alternative on that

basis provided that the decision maker(s) adopt a finding, supported by substantial evidence, to that effect and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence (*City of Del Mar v. City of San Diego* [1982] 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* [2009] 177 Cal.App.4th 957, 998).

The EIR should also identify any alternatives that were considered by the lead agency but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

5.3.1 Off-Site Alternative

Based on review of satellite imagery of the El Dorado Hills Community Region, a majority of the area has been developed. Remaining large land areas that have yet to fully developed with residential uses are located within entitled projects that include the Promontory Specific Plan, El Dorado Hills Specific Plan, Bass Lake Hills Specific Plan, Valley View Specific Plan, and the Carson Creek Specific Plan. There are no undeveloped or unentitled land areas available within the El Dorado Hills Community Region boundary that are of adequate size (280 acres) that can accommodate the project. As identified in the project objectives above, the basic objectives of the project are to provide a range of residential densities and land use patterns that maintains and enhances the character of the existing rural and urban community consistent with the El Dorado County General Plan policy provisions of directing urban/suburban growth within community regions (Objective 2.1.1 and associated Policy 2.1.1.2). While there are adequately sized land areas available outside of the El Dorado Hills Community Region boundary that could accommodate the project, this would be inconsistent with the basic project objectives. Thus, this alternative would be eliminated from further consideration.

5.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

The following alternatives are evaluated in this Draft EIR.

- ▶ **Alternative 1: No Project–No Development Alternative** – This alternative assumes no development of the site. The project site would remain in its current condition.
- ▶ **Alternative 2: No Project/Development Consistent with the General Plan Alternative** – The project site would be developed consistent with the site's current General Plan land use designation of Low Density Residential. This would result in on-site roadway improvements with three emergency vehicle access points and a subdivision with 56 residential lots (5-acre lots). Water and wastewater would consist of on-site wastewater disposal systems and wells. Off-site improvements would be limited to access improvements to Green Valley Road.
- ▶ **Alternative 3: Mixed Use Development Alternative** – This alternative would modify the proposed project site plan to provide mixed land uses in the eastern portion of the project site that would consist of 350 multifamily residential units for extremely low-, very low-, low-, and moderate-income households as defined by the 2021–2029 Housing Element and 30,000 square feet of commercial uses. This alternative would also designate proposed lots 2–4 as open space. All other aspects of the proposed project would be retained.
- ▶ **Alternative 4: Reduced Build Alternative** – This alternative would redesignate the project site as Medium Density Residential and Open Space under the General Plan but would retain the existing on-site residence on a 5-acre lot. This would allow the development of 155 residential lots (1-acre lots).
- ▶ **Alternative 5: Dixon Ranch Alternative** – This alternative would consist of the previously proposed Dixon Ranch Residential Project (Dixon Ranch), which was denied by the Board of Supervisors on February 14, 2017. The Dixon Ranch project proposed to subdivide the site to create 605 single-family residential lots (containing 604 new single-family detached residential units and the retention of the existing Dixon residence). Approximately 160 of these units would be age restricted. Dixon Ranch also proposed open space areas, including parks, trails, landscaped lots, and native open spaces.

Further details on these alternatives, and an evaluation of environmental effects relative to the proposed project, are provided below.

5.4.1 Alternative 1: No Project-No Development Alternative

Under Alternative 1, the No Project–No Development Alternative, no actions would be taken by El Dorado County, and the project site would remain unchanged from current conditions. The project site would remain vacant and in its current condition. The No Project–No Development Alternative would not meet the project objectives. However, as identified in State CEQA Guidelines Section 15126.6(e)(1), the analysis of 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.

For purposes of comparison with this alternative, conclusions for each technical area are characterized as “impacts” that are greater, similar, or less to describe conditions that are worse than, similar to, or less than those of the proposed project. The analysis below is based on the impact analysis provided in this Draft EIR.

AESTHETICS

As identified in Section 3.1, “Aesthetics,” the project would not result in significant aesthetic impacts associated with scenic vistas, scenic highways, visual character, or light and glare. Under this alternative, there would be no alteration of the visual character or quality of the project site. Views of the project site from Green Valley Road would not change, and no new sources of light and glare would be created, as would occur with the proposed project. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

AIR QUALITY

As identified above, the project would result in significant but mitigable air quality impacts associated with compliance with the AQAP, construction emissions, TACs, and exposure to naturally occurring asbestos. Because the No Project–No Development Alternative would involve no construction disturbance and no new vehicular trip generation, this alternative would not generate construction- or operation-related air emissions and TACs (including naturally occurring asbestos). Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

ARCHAEOLOGICAL AND HISTORICAL CULTURAL RESOURCES

As identified above, the project would result in significant but mitigable archaeological resource impacts. The No Project–No Development Alternative would not involve any earthmoving activities, thereby avoiding impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded archaeological resources or human remains. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

BIOLOGICAL RESOURCES

The project would result in significant but mitigable biological resource impacts (with the exception of cumulative impacts to oak woodlands) associated with special-status plant species, special-status wildlife species, loss of riparian and sensitive habitat communities, wetlands, and compliance with local regulations that protect biological resources. The No Project–No Development Alternative would not result in any new ground disturbance on the project site or in the off-site improvement areas. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

ENERGY

As identified above, the project would result in significant but mitigable energy use impacts. Under the No Project–No Development Alternative, no demolition or construction activities would occur, and no new sources of energy use

would be developed. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

The project would result in significant but mitigable geologic and soil impacts and impacts associated with on-site wastewater disposal systems and paleontological resources. Under this alternative, no ground disturbance or earthmoving activities would occur; therefore, no impacts on geologic and soil stability, on-site wastewater disposal systems, or on previously undiscovered paleontological resources would occur. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

As identified above, the project would result in significant and unavoidable GHG impacts. Under the No Project–No Development Alternative, the project site would remain in its current condition. Project construction- and operation-related emissions of GHGs would not occur. This alternative would avoid the project's significant and unavoidable GHG impact. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

HAZARDS AND HAZARDOUS MATERIALS

The project would result in significant but mitigable hazard impacts related to construction and demolition activities associated with existing structures. Under this alternative, no construction or demolition activities that could release contamination would occur. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

HYDROLOGY AND WATER QUALITY

As identified in Section 3.9, "Hydrology and Water Quality," the project would result in less-than-significant hydrology and water quality impacts associated with groundwater resources, water quality, drainage, and flooding. Under the No Project–No Development Alternative, there would be no potential for construction-related or operational releases of sediment and contaminants into surface waters; no changes in current groundwater conditions; and no changes in stormwater generation, drainage patterns, or flood conditions. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

LAND USE, PLANNING, AND AGRICULTURE AND FORESTRY RESOURCES

As identified in Section 3.10, "Land Use, Planning, and Agriculture and Forestry Resources," the project would not result in significant impacts on agriculture and forestry resources, result in the physical division of an established community, or conflict with land use policy provisions that address environmental effects. This alternative would not divide an established community, nor would it conflict with plans adopted for the purpose of avoiding or mitigating a significant effect. Because the No Project–No Development Alternative would not require any General Plan amendments or rezoning, impacts under this alternative would be less than would occur under the Project. (*Less*)

NOISE AND VIBRATION

As identified above, the project would result in significant but mitigable noise and vibration impacts associated with construction vibration and stationary sources; however, construction noise impacts would be significant and unavoidable. No significant traffic noise impacts were identified for the project. Under this alternative, no project-related construction activities would take place, and there would be no increases in short-term construction-related noise at nearby sensitive receptors. No increase in project traffic noise, as well as new noise sources and new noise-

generating activities, would occur. This alternative would avoid project-related significant and unavoidable noise impacts associated with construction noise. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. *(Less)*

POPULATION AND HOUSING

As identified in Section 3.12, “Population and Housing,” the project would not result in significant impacts associated with the displacement of substantial numbers of people or housing or induce substantial unplanned growth. The No Project–No Development Alternative would also not result in the displacement of substantial numbers of people or housing or induce substantial unplanned growth, because it would not generate any new housing in El Dorado County. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. *(Less)*

PUBLIC SERVICES AND RECREATION

As identified in Section 3.13, “Public Services and Recreation,” the project would not result in significant impacts associated with fire protection services, law enforcement services, public schools, or park and recreation services that would trigger the need for facilities that would create impacts on the physical environment. The No Project–No Development Alternative would result in no site development and would not create any new public service demand. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. *(Less)*

TRANSPORTATION

As identified above, the project would result in significant but mitigable transportation impacts associated with transportation hazards, with the exception of VMT impacts, which would be significant and unavoidable. Implementing the No Project–No Development Alternative would not result in an increase in vehicular trips. Therefore, it would not result in a change in existing VMT conditions or an increase in the demand for transit, bicycle, or pedestrian services and facilities. Additionally, the No Project–No Development Alternative would not result in any change to the existing transportation network; thus, it would not result in impacts on transportation safety or emergency access or conflict with transportation plans, guidelines, policies, or standards. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. *(Less)*

UTILITIES AND SERVICE SYSTEMS

As identified in Section 3.15, “Utilities and Service Systems,” the project would result in less-than-significant impacts associated with water supply service, wastewater service, and solid waste service. The No Project–No Development Alternative would not result in any new demand for water, wastewater treatment, or solid waste service, nor would it result in the need for new infrastructure. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. *(Less)*

TRIBAL CULTURAL RESOURCES

The project would result in significant but mitigable impacts associated with the accidental discovery of tribal cultural resources. The No Project–No Development Alternative would not involve any earthmoving activities, thereby avoiding impacts related to the disturbance, destruction, or alteration of tribal cultural resources. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. *(Less)*

WILDFIRE AND EVACUATION

The project would result in significant but mitigable impacts related to evacuation during a wildfire event. The No Project–No Development Alternative would not involve site development and therefore would not create additional wildfire hazards or affect evacuation during emergencies. Thus, impacts under the No Project–No Development Alternative would be less than those that would occur with the project. (*Less*)

5.4.2 Alternative 2: No Project/Development Consistent with the General Plan Alternative

Under this alternative, the project site would be developed consistent with the site’s current General Plan land use designation of Low Density Residential. This would result in on-site roadway improvements with three emergency vehicle access points along the site boundary, at Marden Drive, Lima Way, and East Green Springs Road. The Low Density Residential land use designation is assumed to result in a subdivision with 56 residential lots (5-acre lots) and an associated population of 159 residents. Water and wastewater would consist of on-site wastewater disposal systems and wells given the rural large lot design of this alternative. Off-site improvements would be limited to access improvements to Green Valley Road. This variation of the no project alternative is consistent with State CEQA Guidelines Section 15126.6(e)(2) that requires the consideration of what would be reasonably expected to occur in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure and community services.

For purposes of comparison with this alternative, conclusions for each technical area are characterized as “impacts” that are greater, similar, or less to describe conditions that are worse than, similar to, or less than those of the proposed project. The analysis below is based on the impact analysis provided in this Draft EIR.

AESTHETICS

As identified in Section 3.1, “Aesthetics,” the project would not result in significant aesthetic impacts associated with scenic vistas, scenic highways, visual character, or light and glare. Under this alternative, the visual character of the site as viewed from Green Valley Road would be similar to that under the project because of the placement of 5-acre lots along the Green Valley Road corridor. The visual character of public views from Lima Road under this alternative would appear similar to existing conditions due to the 5-acre lot sizes. The No Project/Development Consistent with the General Plan Alternative would also have reduced light sources as compared to the project. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

AIR QUALITY

As identified above, the project would result in significant but mitigable air quality impacts associated with compliance with the AQAP, construction emissions, TACs, and exposure to naturally occurring asbestos. The No Project/Development Consistent with the General Plan Alternative would result in reduced construction- and operation-related air emissions and TACs (including naturally occurring asbestos) due to the reduced extent of site development. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

ARCHAEOLOGICAL AND HISTORICAL CULTURAL RESOURCES

As identified above, the project would result in significant but mitigable archaeological resource impacts. The No Project/Development Consistent with the General Plan Alternative would involve reduced earthmoving activities compared to the project, thereby further minimizing impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded archaeological resources or human remains. Thus, impacts under the

No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

BIOLOGICAL RESOURCES

The project would result in significant but mitigable biological resource impacts (with the exception of cumulative impacts to oak woodlands) associated with special-status plant species, special-status wildlife species, loss of riparian and sensitive habitat communities, wetlands, and compliance with local regulations that protect biological resources. The No Project/Development Consistent with the General Plan Alternative would result in reduced ground disturbance on the project site and would avoid the need for off-site infrastructure improvements. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

ENERGY

As identified above, the project would result in significant but mitigable energy use impacts. Under the No Project/Development Consistent with the General Plan Alternative, energy use from construction and operation would be reduced as compared to the project. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

The project would result in significant but mitigable geologic and soil impacts and impacts associated with on-site wastewater disposal systems and paleontological resources. Under this alternative, ground disturbance and earthmoving activities would be reduced as compared to the project, which would minimize impacts on geologic and soil stability and on previously undiscovered paleontological resources. This alternative would involve the expansion of the use of on-site wastewater treatment systems as compared to the project and would be subject to County Code of Ordinances Chapter 110.32, which establishes standards for the siting, design, installation, operation, and maintenance of on-site wastewater treatment systems in the county to protect the environment and public health. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

As identified above, the project would result in significant and unavoidable GHG impacts. Under the No Project/Development Consistent with the General Plan Alternative, site development would be reduced, which would result in reduced construction- and operation-related emissions of GHGs as compared to the project. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

HAZARDS AND HAZARDOUS MATERIALS

The project would result in significant but mitigable hazard impacts related to construction and demolition activities associated with existing structures. Under this alternative, construction and demolition activities that could release contamination may occur. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be similar to those that would occur with the project. (*Similar*)

HYDROLOGY AND WATER QUALITY

As identified in Section 3.9, "Hydrology and Water Quality," the project would result in less-than-significant hydrology and water quality impacts associated with groundwater resources, water quality, drainage, and flooding. Under the No

Project/Development Consistent with the General Plan Alternative, there would be potential for construction-related or operational releases of sediment and contaminants into surface waters, although the extent of this impact would be reduced. This alternative would involve the expanded use of on-site groundwater but would result in a reduced impervious area and associated changes in drainage conditions and flooding as compared to the project. As identified in Section 3.9, Hydrology and Water Quality, the project site consists of native soil and fills underlain by fractured metasedimentary bedrock with fractured bedrock aquifer conditions. Because fractures in bedrock are often interconnected, the installation and operation of new wells into a fractured bedrock aquifer can affect groundwater levels in the vicinity and potentially affect the production in nearby wells. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative could be greater than those that would occur with the project related to groundwater use. (*Worse*)

LAND USE, PLANNING, AND AGRICULTURE AND FORESTRY RESOURCES

As identified in Section 3.10, "Land Use, Planning, and Agriculture and Forestry Resources," the project would not result in significant impacts on agriculture and forestry resources, result in the physical division of an established community, or conflict with land use policy provisions that address environmental effects. This alternative would not divide an established community, nor would it conflict with plans adopted for the purpose of avoiding or mitigating a significant effect. Because the No Project/Development Consistent with the General Plan Alternative would not require any General Plan amendments or rezoning, impacts under this alternative would be less than would occur under the Project. (*Less*)

NOISE AND VIBRATION

As identified above, the project would result in significant but mitigable noise and vibration impacts associated with construction vibration and stationary sources; however, construction noise impacts would be significant and unavoidable. No significant traffic noise impacts were identified for the project. Under this alternative, project-related construction activities would be reduced and would not involve the construction noise impacts associated with off-site infrastructure improvements identified for the project. This alternative would result in reductions in new noise sources and new noise-generating activities as compared to the project. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

POPULATION AND HOUSING

As identified in Section 3.12, "Population and Housing," the project would not result in significant impacts associated with the displacement of substantial numbers of people or housing or induce substantial unplanned growth. The No Project/Development Consistent with the General Plan Alternative would also not result in the displacement of substantial numbers of people or housing or induce substantial unplanned growth, because it would generate 56 new residential units and a project population of 159 residents in El Dorado County as compared to the project's 379 residential units and population of 854 to 1,077 residents. Thus, impacts under No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

PUBLIC SERVICES AND RECREATION

As identified in Section 3.13, "Public Services and Recreation," the project would not result in significant impacts associated with fire protection services, law enforcement services, public schools, or park and recreation services that would trigger the need for facilities that would create impacts on the physical environment. The No Project/Development Consistent with the General Plan Alternative would result in reduced residential development of the site and would have minimal public service demands. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

TRANSPORTATION

As identified above, the project would result in significant but mitigable transportation impacts associated with transportation hazards, with the exception of VMT impacts, which would be significant and unavoidable. Implementing the No Project/Development Consistent with the General Plan Alternative is anticipated to result in a VMT impact similar to that of the project because the impact and threshold is based on VMT per capita, but this alternative would generate less total VMT as compared the project. Similar to the project, this alternative could create transportation hazards during construction of access connections to Green Valley Road; however, the No Project/Development Consistent with the General Plan Alternative would not affect emergency access or conflict with transportation plans, guidelines, policies, or standards. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less to those that would occur with the project. (*Less*)

UTILITIES AND SERVICE SYSTEMS

As identified in Section 3.15, "Utilities and Service Systems," the project would result in less-than-significant impacts associated with water supply service, wastewater service, and solid waste service. The No Project/Development Consistent with the General Plan Alternative would obtain water and wastewater service on-site and would not require public water, wastewater, and solid waste services or off-site infrastructure services. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative would be less than those that would occur with the project. (*Less*)

TRIBAL CULTURAL RESOURCES

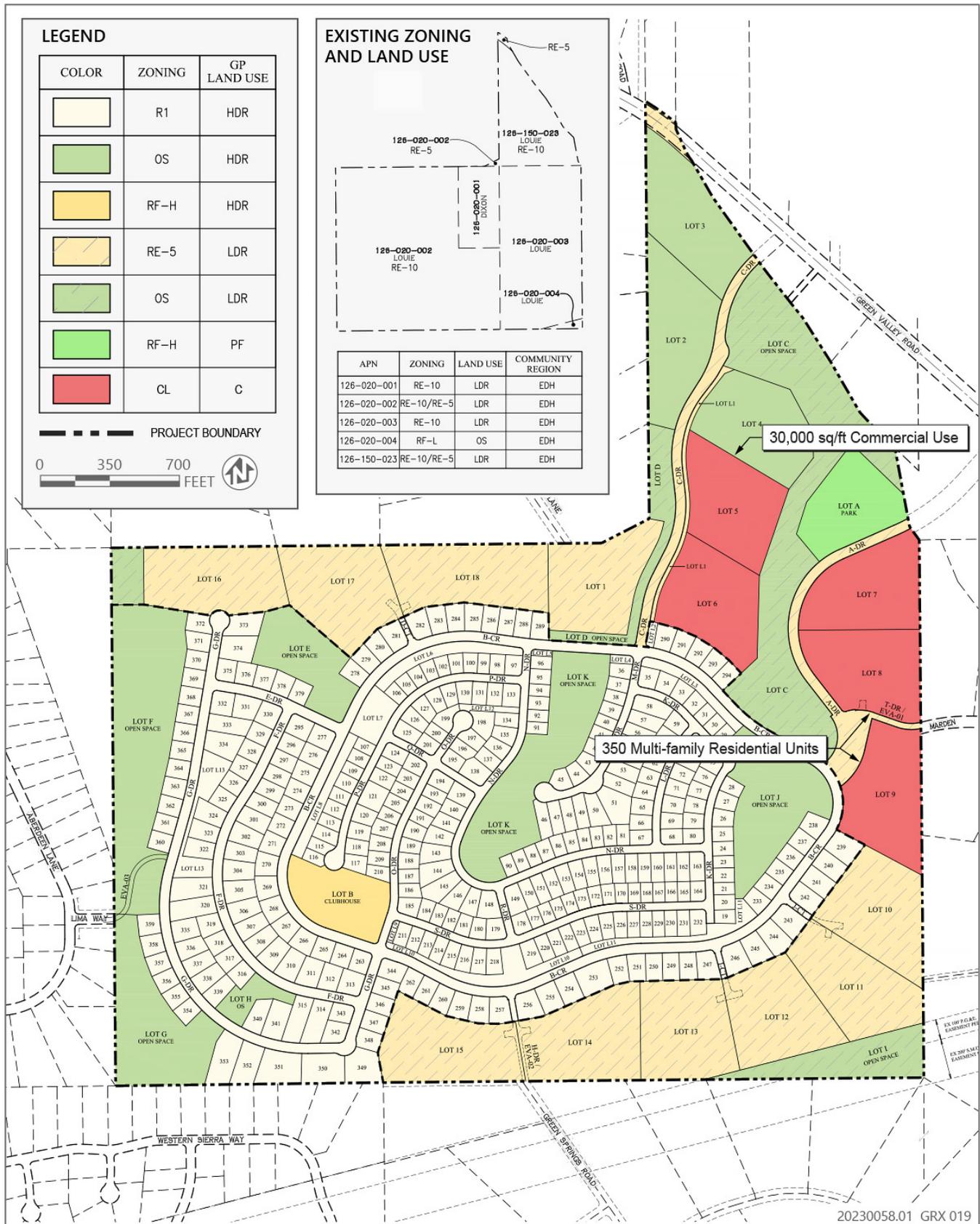
The project would result in significant but mitigable impacts associated with the accidental discovery of tribal cultural resources. The No Project/Development Consistent with the General Plan Alternative would involve reduced earthmoving activities, thereby further minimizing impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded tribal cultural resources as compared to the project. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative could be less than those that would occur with the project. (*Less*)

WILDFIRE AND EVACUATION

The project would result in significant but mitigable impacts related to evacuation during a wildfire event. The No Project/Development Consistent with the General Plan Alternative would have reduced development and associated population on-site that could create a fire event or would be involved with an evacuation event that would reduce the length of time required to evacuate the project area as compared to the project. This alternative would be subject to applicable fire protection standards including CCR Title 14, Sections 1270 through 1276 (Fire Safe Regulations), CCR Title 24, Part 9, Section 4903 (Plans), El Dorado County Fire Protection Standard W-002 (Wildland Interface Fire Protection Plans), and El Dorado County General Plan Policy 6.2.2.2. Thus, impacts under the No Project/Development Consistent with the General Plan Alternative could be less than those that would occur with the project. (*Less*)

5.4.3 Alternative 3: Mixed Use Development Alternative

As shown in Figure 5-1, this alternative would modify the proposed project site plan to provide mixed land uses in the eastern portion of the project site, which would consist of 350 multifamily residential units in buildings up to four stories in height for extremely low-, very low-, low-, and moderate-income households as defined by the 2021–2029 Housing Element and 30,000 square feet of commercial uses on 25 acres that would be designated Commercial and zoned Limited Commercial (CL). Mixed uses are allowed in the CL zone as provided in County Code of Ordinances Section 130.40.180. While this alternative would consist of a mixed use component, it would still be consistent with project objectives of directing growth within the El Dorado Hills Community Region and the provision of residential uses at a range of densities.



Source: Image produced and provided by cta Engineering & Survey in 2024, adapted by Ascent in 2024.

Figure 5-1 Alternative 3: Mixed Use Development Alternative

This alternative would also designate proposed lots 2–4 as open space to protect natural resources on-site. All other aspects of the proposed project (remaining land use plan, off-site infrastructure and roadway improvements, and emergency access points) would be retained. Total site development would be 721 residential units, project population of up to 2,048 residents and 30,000 square feet of commercial uses.

For purposes of comparison with this alternative, conclusions for each technical area are characterized as “impacts” that are greater, similar, or less to describe conditions that are worse than, similar to, or less than those of the proposed project. The analysis below is based on the impact analysis provided in this Draft EIR.

AESTHETICS

As identified in Section 3.1, “Aesthetics,” the project would not result in significant aesthetic impacts associated with scenic vistas, scenic highways, visual character, or light and glare. Under this alternative, the visual character of the site from public views from Green Valley Road would be altered with the 350 multifamily residential units in buildings that could be four stories in height and 30,000 square feet of commercial uses, which would conflict with the rural character of this portion of the Green Valley Road corridor. In addition, this alternative would create new sources of lighting and glare that would be visible from Green Valley Road. Thus, impacts under the Mixed Use Development Alternative would be worse than those that would occur with the project. (*Worse*)

AIR QUALITY

As identified above, the project would result in significant but mitigable air quality impacts associated with compliance with the AQAP, construction emissions, TACs, and exposure to naturally occurring asbestos. The Mixed Use Development Alternative is anticipated to result in increased construction- and operation-related air emissions due to the intensity of site development in the eastern portion of the site. Thus, impacts under the Mixed Use Development Alternative would be worse than those that would occur with the project. (*Worse*)

ARCHAEOLOGICAL AND HISTORICAL CULTURAL RESOURCES

As identified above, the project would result in significant but mitigable archaeological resource impacts. The Mixed Use Development Alternative would have an overall similar extent of earthmoving activities on the site compared to the project, which could create impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded archaeological resources or human remains. Thus, impacts under the Mixed Use Development Alternative would be similar to those that would occur with the project. (*Similar*)

BIOLOGICAL RESOURCES

The project would result in significant but mitigable biological resource impacts (with the exception of cumulative impacts to oak woodlands) associated with special-status plant species, special-status wildlife species, loss of riparian and sensitive habitat communities, wetlands, and compliance with local regulations that protect biological resources. The Mixed Use Development Alternative would retain project-proposed lots 2–4 as open space, which would avoid impacts on wetlands and oak woodlands in this area of the project. Thus, impacts under the Mixed Use Development Alternative would be less than those that would occur with the project. (*Less*)

ENERGY

As identified above, the project would result in significant but mitigable energy use impacts. Under the Mixed Use Development Alternative, energy use from construction and operation would be increased as compared to the project due to the increased development on the site. Thus, impacts under the Mixed Use Development Alternative would be worse than those that would occur with the project. (*Worse*)

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

The project would result in significant but mitigable geologic and soil impacts and impacts associated with on-site wastewater disposal systems and paleontological resources. The Mixed Use Development Alternative would have an overall similar extent of earthmoving activities as compared to the project and would have similar impacts on geologic and soil stability, on-site wastewater disposal systems and on previously undiscovered paleontological resources. Thus, impacts under the Mixed Use Development Alternative would be similar to those that would occur with the project. (*Similar*)

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

As identified above, the project would result in significant and unavoidable GHG impacts. Under the Mixed Use Development Alternative, site development would be increased and would result in additional construction- and operation-related emissions of GHGs as compared to the project. Thus, impacts under the Mixed Use Development Alternative would be worse than those that would occur with the project. (*Worse*)

HAZARDS AND HAZARDOUS MATERIALS

The project would result in significant but mitigable hazard impacts related to construction and demolition activities associated with existing structures. Under this alternative, construction and demolition activities that could release contamination may occur. Thus, impacts under the Mixed Use Development Alternative would be similar to those that would occur with the project. (*Similar*)

HYDROLOGY AND WATER QUALITY

As identified in Section 3.9, "Hydrology and Water Quality," the project would result in less-than-significant hydrology and water quality impacts associated with groundwater resources, water quality, drainage, and flooding. Under the Mixed Use Development Alternative, there would be a similar potential for construction-related or operational releases of sediment and contaminants into surface waters and associated changes in drainage conditions and flooding as compared to the project. Thus, impacts under the Mixed Use Development Alternative would be similar to those that would occur with the project. (*Similar*)

LAND USE, PLANNING, AND AGRICULTURE AND FORESTRY RESOURCES

As identified in Section 3.10, "Land Use, Planning, and Agriculture and Forestry Resources," the project would not result in significant impacts on agriculture and forestry resources, result in the physical division of an established community, or conflict with land use policy provisions that address environmental effects. This alternative would not divide an established community, nor would it conflict with plans adopted for the purpose of avoiding or mitigating a significant effect. Thus, impacts under the Mixed Use Development Alternative would be similar to those that would occur with the project. (*Similar*)

NOISE AND VIBRATION

As identified above, the project would result in significant but mitigable noise and vibration impacts associated with construction vibration and stationary sources; however, construction noise impacts would be significant and unavoidable. No significant traffic noise impacts were identified for the project. Under this alternative, project-related construction activities would be similar to those identified for the project. This alternative would result in increased potential for significant stationary noise sources associated with the operation of the commercial uses (e.g., delivery truck activities and building equipment) and traffic noise as compared to the project. Thus, impacts under the Mixed Use Development Alternative would be worse than those that would occur with the project. (*Worse*)

POPULATION AND HOUSING

As identified in Section 3.12, "Population and Housing," the project would not result in significant impacts associated with the displacement of substantial numbers of people or housing or induce substantial unplanned growth. The Mixed Use Development Alternative would also not result in the displacement of substantial numbers of people or housing or induce substantial unplanned growth. However, it would increase the residential development potential of the site by 342 residential units and an additional 971 residents compared to the proposed project maximum anticipated residential unit and population at build out. Thus, impacts under Mixed Use Development Alternative would be worse than those that would occur with the project. (*Worse*)

PUBLIC SERVICES AND RECREATION

As identified in Section 3.13, "Public Services and Recreation," the project would not result in significant impacts associated with fire protection services, law enforcement services, public schools, or park and recreation services that would trigger the need for facilities that would create impacts on the physical environment. The Mixed Use Development Alternative would result in additional residential and commercial development on the site and would have increased public service demands as compared to the project. Thus, impacts under the Mixed Use Development Alternative would be worse than those that would occur with the project. (*Worse*)

TRANSPORTATION

As identified above, the project would result in significant but mitigable transportation impacts associated with transportation hazards, with the exception of VMT impacts, which would be significant and unavoidable. Implementing the Mixed Use Development Alternative would provide higher-density residential and locally serving residential uses that provide VMT benefits as compared to the project. It should be noted, though, that the most significant reduction in VMT with the Mixed Use Development Alternative results from the inclusion of 100 percent affordable housing component for 350 of the residential units. In its Technical Advisory on Evaluation Transportation Impacts in CEQA, the state Office of Planning and Research ("OPR") concluded, that "[e]vidence supports a presumption of less than significant impact for a 100 percent affordable residential development (or the residential component of a mixed-use development) in *infill* locations." OPR also explained that "low-wage workers in particular would be more likely to choose a residential location close to their workplace, if one is available." El Dorado County adopted this presumption of a less than significant impact to VMT for 100 percent affordable residential projects in Resolution 141-2020 establishing VMT thresholds. Development of affordable housing in infill locations is also consistent with state goals and policies aimed at increasing development, including affordable housing, closer to transit opportunities. Given the location of the project, including the lack of diverse employment opportunities and the lack of comprehensive public transit, the presumption of a less than significant impact to VMT based on the affordability of the units may not be appropriate. Similar to the project, this alternative could create transportation hazards during construction of access connections to Green Valley Road; however, the Mixed Use Development Alternative would not affect emergency access or conflict with transportation plans, guidelines, policies, or standards, similar to the project. Thus, impacts under the Mixed Use Development Alternative would be less than those that would occur with the project. (*Less*)

UTILITIES AND SERVICE SYSTEMS

As identified in Section 3.15, "Utilities and Service Systems," the project would result in less-than-significant impacts associated with water supply service, wastewater service, and solid waste service. The Mixed Use Development Alternative would result in higher water supply, wastewater service, and solid waste service demands as compared to the project due to the additional 342 residential units and 30,000 square feet of commercial uses. Specifically, the alternative would increase water demand by up to 239.4 acre-feet annually, wastewater service demand by 88,080 gallons per day, and 6,506 pounds per day of solid waste per day based on demand factors in Section 3.15, "Utilities and Service Systems." Thus, impacts under the Mixed Use Development Alternative would be worse than those that would occur with the project. (*Worse*)

TRIBAL CULTURAL RESOURCES

The project would result in significant but mitigable impacts associated with the accidental discovery of tribal cultural resources. The Mixed Use Development Alternative would have an overall similar extent of earthmoving activities on the site compared with the project, which could create similar impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded tribal cultural resources. Thus, impacts under the Mixed Use Development Alternative would be similar to those that would occur with the project. (*Similar*)

WILDFIRE AND EVACUATION

The project would result in significant but mitigable impacts related to evacuation during a wildfire event. The Mixed Use Development Alternative would have larger extent of development and associated population on-site that could create a fire event or would be involved with an evacuation event that could increase the length of time required to evacuate the project area as compared to the project. This alternative would be subject to applicable fire protection standards including CCR Title 14, Sections 1270 through 1276 (Fire Safe Regulations), CCR Title 24, Part 9, Section 4903 (Plans), El Dorado County Fire Protection Standard W-002 (Wildland Interface Fire Protection Plans), and El Dorado County General Plan Policy 6.2.2.2. Thus, impacts under the Mixed Use Development Alternative could be greater than those that would occur with the project. (*Worse*)

5.4.4 Alternative 4: Reduced Build Alternative

As shown in Figure 5-2, this alternative would redesignate the project site as Medium Density Residential under the General Plan but would retain the existing on-site residence on a 5-acre lot. This would allow the development of 155 residential lots (1-acre lots) and 440 residents. Approximately 122 acres of the site would be retained as open space. This alternative would include the two proposed roadway access points to Green Valley Road and on-site roadway improvements with three emergency vehicle access points along the site boundary, at Marden Drive, Lima Way, and East Green Springs Road. This alternative would also include the same off-site infrastructure and roadway improvements identified for the proposed project. While this alternative would reduce development potential as compared to the project, it would still be consistent with project objectives of directing growth within the El Dorado Hills Community Region and the provision of residential uses at a range of densities.

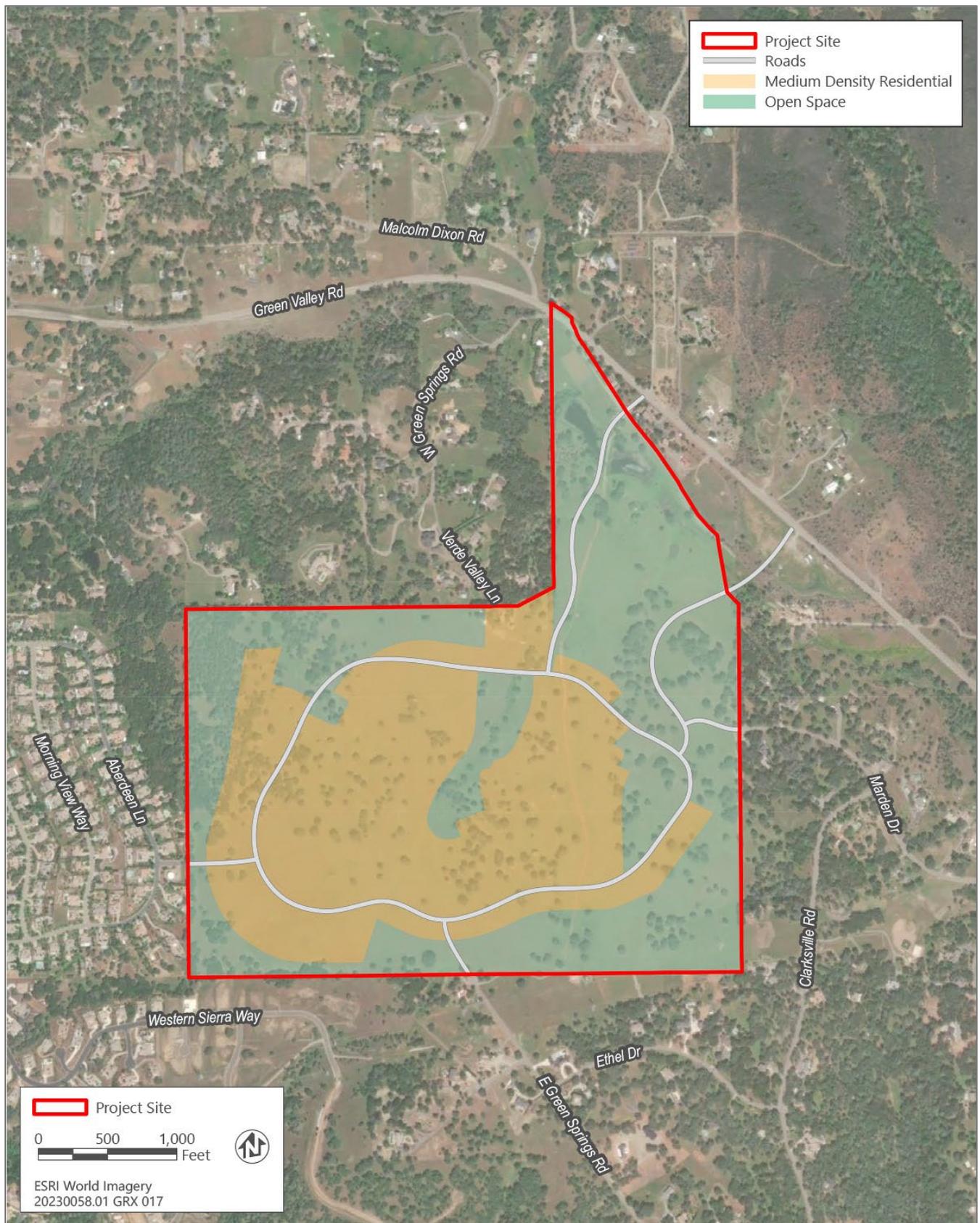
For purposes of comparison with this alternative, conclusions for each technical area are characterized as “impacts” that are greater, similar, or less to describe conditions that are worse than, similar to, or less than those of the proposed project. The analysis below is based on the impact analysis provided in this Draft EIR.

AESTHETICS

As identified in Section 3.1, “Aesthetics,” the project would not result in significant aesthetic impacts associated with scenic vistas, scenic highways, visual character, or light and glare. Under this alternative, the visual character of the site visible from public views on Green Valley Road would consist of open space similar to existing conditions, as well as the roadway improvements. In addition, this alternative would have reduced sources of lighting and glare that would be visible from Green Valley Road as compared to the project. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

AIR QUALITY

As identified above, the project would result in significant but mitigable air quality impacts associated with compliance with the AQAP, construction emissions, TACs, and exposure to naturally occurring asbestos. The Reduced Build Alternative would result in reduced construction- and operation-related air emissions due to the reduced extent of site development as compared to the project. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)



Source: adapted by Ascent in 2023.

Figure 5-2 Alternative 4: Reduced Build Alternative

ARCHAEOLOGICAL AND HISTORICAL CULTURAL RESOURCES

As identified above, the project would result in significant but mitigable archaeological resource impacts. The Reduced Build Alternative would have a smaller extent of earthmoving activities on the site compared with the project, which could create impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded archaeological resources or human remains. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

BIOLOGICAL RESOURCES

The project would result in significant but mitigable biological resource impacts (with the exception of cumulative impacts to oak woodlands) associated with special-status plant species, special-status wildlife species, loss of riparian and sensitive habitat communities, wetlands, and compliance with local regulations that protect biological resources. The Reduced Build Alternative would retain larger areas of open space that would minimize impacts on special-status plant species, special-status wildlife species, loss of riparian and sensitive habitat communities, wetlands, and compliance with local regulations that protect biological resources as compared to the project. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

ENERGY

As identified above, the project would result in significant but mitigable energy use impacts. Under the Reduced Build Alternative, energy use from construction and operation would be reduced as compared to the project. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

The project would result in significant but mitigable geologic and soil impacts and impacts associated with on-site wastewater disposal systems and paleontological resources. The Reduced Build Alternative would have a smaller extent of earthmoving activities as compared to the project and would have reduced impacts on geologic and soil stability and on previously undiscovered paleontological resources. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

As identified above, the project would result in significant and unavoidable GHG impacts. Under the Reduced Build Alternative, site development would be reduced, which would result in decreases in construction- and operation-related emissions of GHGs as compared to the project. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

HAZARDS AND HAZARDOUS MATERIALS

The project would result in significant but mitigable hazard impacts related to construction and demolition activities associated with existing structures. Under this alternative, construction and demolition activities that could release contamination may occur. Thus, impacts under the Reduced Build Alternative would be similar to those that would occur with the project. (*Similar*)

HYDROLOGY AND WATER QUALITY

As identified in Section 3.9, "Hydrology and Water Quality," the project would result in less-than-significant hydrology and water quality impacts associated with groundwater resources, water quality, drainage, and flooding. Under the Reduced Build Alternative, there would be a reduced potential for construction-related or operational releases of

sediment and contaminants into surface waters and associated changes in drainage conditions and flooding as compared to the project. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

LAND USE, PLANNING, AND AGRICULTURE AND FORESTRY RESOURCES

As identified in Section 3.10, "Land Use, Planning, and Agriculture and Forestry Resources," the project would not result in significant impacts on agriculture and forestry resources, result in the physical division of an established community, or conflict with land use policy provisions that address environmental effects. This alternative would not divide an established community, nor would it conflict with plans adopted for the purpose of avoiding or mitigating a significant effect. Thus, impacts under the Reduced Build Alternative would be similar to those that would occur with the project. (*Similar*)

NOISE AND VIBRATION

As identified above, the project would result in significant but mitigable noise and vibration impacts associated with construction vibration and stationary sources; however, construction noise impacts would be significant and unavoidable. No significant traffic noise impacts were identified for the project. Under this alternative, project-related construction activities associated with off-site improvements would be similar to those identified for the project, whereas the extent of on-site construction activity would be reduced. This alternative would result in reduced potential for significant stationary noise sources associated with the reduction in site development as compared to the project. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

POPULATION AND HOUSING

As identified in Section 3.12, "Population and Housing," the project would not result in significant impacts associated with the displacement of substantial numbers of people or housing or induce substantial unplanned growth. The Reduced Build Alternative would also not result in the displacement of substantial numbers of people or housing or induce substantial unplanned growth. It would decrease the residential development potential of the site by 224 units and 636 residents as compared to the proposed project maximum anticipated residential unit and population at build out. Thus, impacts under Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

PUBLIC SERVICES AND RECREATION

As identified in Section 3.13, "Public Services and Recreation," the project would not result in significant impacts associated with fire protection services, law enforcement services, public schools, or park and recreation services that would trigger the need for facilities that would create impacts on the physical environment. The Reduced Build Alternative would result in reduced residential development of the site and would have decreased public service demands as compared to the project. Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. (*Less*)

TRANSPORTATION

As identified above, the project would result in significant but mitigable transportation impacts associated with transportation hazards, with the exception of VMT impacts, which would be significant and unavoidable. Implementing the Reduced Build Alternative is anticipated to result in a VMT impact similar to that of the project because the impact and threshold are based on VMT per capita, but total VMT would be reduced as compared to the project. Similar to the project, this alternative could create transportation hazards during construction of access

connections to Green Valley Roads. Thus, impacts under the Reduced Build Alternative would be less to those that would occur with the project. *(Less)*

UTILITIES AND SERVICE SYSTEMS

As identified in Section 3.15, "Utilities and Service Systems," the project would result in less-than-significant impacts associated with water supply service, wastewater service, and solid waste service. The Reduced Build Alternative would result in reduced water supply, wastewater service, and solid waste service demands as compared to the project due to the reduced development potential. Specifically, the alternative would decrease water demand by 156.8 acre-feet annually, wastewater service demand by 53,760 gallons per day, and 1,501 pounds per day of solid waste per day based on demand factors in Section 3.15, "Utilities and Service Systems." Thus, impacts under the Reduced Build Alternative would be less than those that would occur with the project. *(Less)*

TRIBAL CULTURAL RESOURCES

The project would result in significant but mitigable impacts associated with the accidental discovery of tribal cultural resources. The Reduced Build Alternative would have a smaller extent of earthmoving activities on the site compared with the project, which could create reduced impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded archaeological resources or human remains. Thus, impacts under the Reduced Build Alternative could be less than those that would occur with the project. *(Less)*

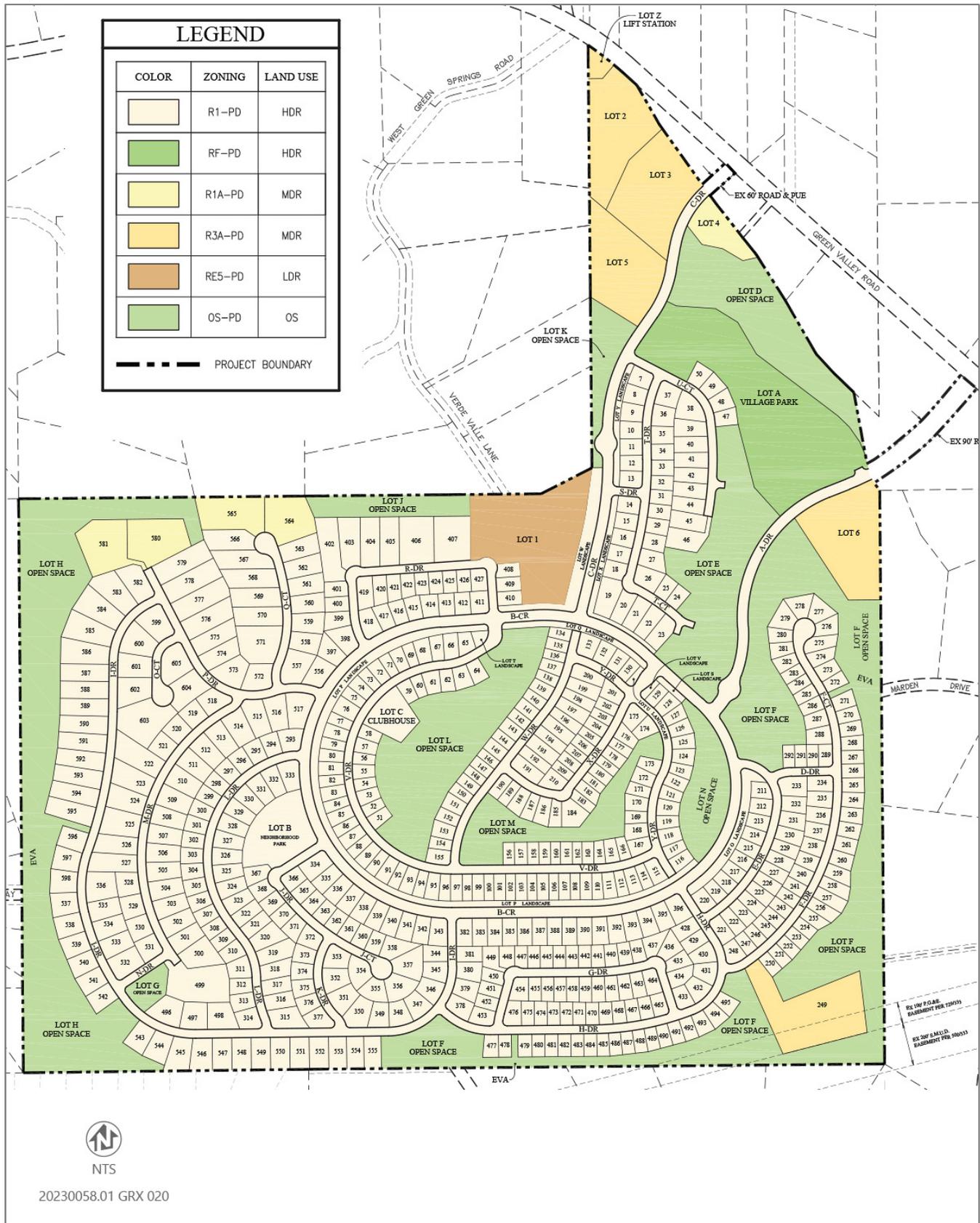
WILDFIRE AND EVACUATION

The project would result in significant but mitigable impacts related to evacuation during a wildfire event. The Reduced Build Alternative would have smaller extent of development and associated population on-site that could create a fire event or would be involved with an evacuation event that would reduce the length of time required to evacuate the project area as compared to the project. This alternative would be subject to applicable fire protection standards including CCR Title 14, Sections 1270 through 1276 (Fire Safe Regulations), CCR Title 24, Part 9, Section 4903 (Plans), El Dorado County Fire Protection Standard W-002 (Wildland Interface Fire Protection Plans), and El Dorado County General Plan Policy 6.2.2.2. Thus, impacts under the Reduced Build Alternative could be less than those that would occur with the project. *(Less)*

5.4.5 Alternative 5: Dixon Ranch Alternative

Several comments received on the notice of preparation (NOP) requested a comparative analysis of the current proposed project and the previously proposed Dixon Ranch Residential Project (Dixon Ranch), which was denied by the Board of Supervisors on February 14, 2017 (see Appendix A for NOP comments). The Dixon Ranch project proposed to subdivide the site to create 605 single-family residential lots and an assumed population of 1,718 residents (containing 604 new single-family detached residential units and the retention of the existing Dixon residence). Approximately 160 of these units would be age restricted. Dixon Ranch also proposed open space areas, including parks, trails, landscaped lots, and native open spaces (Figure 5-3). Dixon Ranch would amend the site's General Plan land uses to High Density Residential (186.26 acres), Medium Density Residential (21.40 acres), Low Density Residential (5.02 acres), and Open Space (67.59 acres). Proposed rezoning of the site would be Residential, Single-Unit Planned Development (177.04 acres); Residential, One-Acre Planned Development (5.52 acres); Residential, Three-Acre Planned Development (15.88 acres); Residential Estate, Five-Acre Planned Development (5.02 acres); Recreational Facilities Planned Development (9.22 acres); and Open Space Planned Development (67.59 acres).

Dixon Ranch would create two improved roadway access points along Green Valley Road, as well as improvements to driveways for adjoining residential lots along Green Valley Road. Similar to the proposed project, Dixon Ranch would have three emergency vehicle access points along the site boundary, at Marden Drive, Lima Way, and East Green Springs Road.



Source: Image produced and provided by cta Engineering & Survey in 2024, adapted by Ascent in 2024.

Figure 5-3 Alternative 5: Dixon Ranch Alternative

Dixon Ranch infrastructure improvements would consist of the following:

- ▶ Drainage: There would be two on-site detention basins.
- ▶ Water Supply: There would be a connection to an existing 8-inch water distribution pipeline within Lima Way, a new water distribution pipeline from the site's southern boundary to an existing 10-inch pipeline located in Greenview Drive, and a new water distribution pipeline from the site's eastern boundary along Green Valley Road to an existing 12-inch pipeline west of Pleasant Grove Middle School.
- ▶ Wastewater: Three alternative off-site improvement options were identified:
 - Off-site Alternative 1: When the existing capacity of Highland Hill Lift Station (HHLS) has been reached, it would be necessary to improve the existing facility in order to serve the project. In addition to HHLS improvements, a new force main would be constructed. The proposed force main alignment would start at HHLS and traverse the Highland Hills subdivision within existing streets to Silva Valley Parkway. It would then continue south along Silva Valley Parkway until reaching the Sacramento Municipal Utility District (SMUD) corridor, where it would head west along the Stone Gate subdivision boundary, ultimately making a connection to an existing 15-inch gravity pipeline. After HHLS reaches capacity, approximately 1,600 lateral feet of existing gravity sewer line within the access road downstream of the HHLS would be upsized to accommodate proposed flows.
 - Off-site Alternative 2: When capacity is reached at HHLS, a new lift station would be constructed on Assessor's Parcel Number (APN) 126-360-18. This site currently houses an existing water pump. To accommodate the new sewer lift station, site improvements would be made. In addition, gravity sewer improvements would be made in Aberdeen Lane in the vicinity of the new station to route the flows to the new lift station. From there, a new force main would be constructed down the sewer access road and along Appian Way to Silva Valley Parkway. After it reaches the SMUD corridor, the force main would then head west along the Stone Gate subdivision boundary, ultimately making a connection to the existing 15-inch gravity pipeline.
 - Off-site Alternative 3: When capacity at HHLS is reached, a new lift station would be constructed on APN 126-390-22. A new force main would also be constructed. Two potential force main alignments have been identified:
 - Alternative A would extend to Loch Way, through the Highland Hills subdivision, within the existing streets to Silva Valley Parkway. It would then continue south along Silva Valley Parkway until it reaches the SMUD corridor, where it would then head west along the Stone Gate subdivision boundary, ultimately making a connection to an existing 15-inch gravity line.
 - Alternative B would extend back up the existing sewer access road, along Appian Way to Silva Valley Parkway, until it reaches the SMUD corridor, where it would then head west along the Stone Gate subdivision boundary, ultimately connecting to an existing 15-inch gravity pipeline.

Upon reaching capacity, approximately 1,050 lateral feet of existing gravity sewer line within the access road downstream of the HHLS would be upsized to accommodate proposed flows.
- ▶ Natural Gas: There would be a connection to the existing natural gas pipeline in Lima Way.
- ▶ Electricity: A new cable would be installed through the existing conduit on Sangiovese Drive; new trenching would occur for installation of a 6-inch conduit and cable on a portion of Appian Way; and cable in an existing conduit along portions of Lima Way, Aberdeen Lane, and Appian Way would be removed and replaced. Additionally, improvements would be made to an overhead electrical wire along the eastern portion of the site to the western edge of the Travois subdivision in Cameron Park. These improvements may include the addition or replacement of poles, wires, and overhead switches or fusing; tree trimming; and the perfection of the right-of-way.

This alternative would be consistent with project objectives of directing growth within the El Dorado Hills Community Region and the provision of residential uses at a range of densities.

For purposes of comparison with this alternative, conclusions for each technical area are characterized as “impacts” that are greater, similar, or less to describe conditions that are worse than, similar to, or less than those of the proposed project. The analysis below is based on the impact analysis provided in this Draft EIR, as well as the Dixon Ranch EIR and CEQA Findings.

AESTHETICS

As identified in Section 3.1, “Aesthetics,” the project would not result in significant aesthetic impacts associated with scenic vistas, scenic highways, visual character, or light and glare. The Dixon Ranch CEQA Findings also stated that no significant aesthetic impacts would occur associated with scenic vistas, scenic highways, visual character, or light and glare (El Dorado County 2015: 26–27). However, the Dixon Ranch Alternative includes dense residential development closer to the site’s boundaries along proposed C-Drive that could be visible from Green Valley Road. The proposed project proposes 5-acre residential lots in this area, which is more reflective of the visual character of this portion of the Green Valley Road corridor. Thus, impacts under the Dixon Ranch Alternative would be greater than those that would occur with the project. (*Worse*)

AIR QUALITY

As identified above, the project would result in significant but mitigable air quality impacts associated with compliance with the AQAP, construction emissions, TACs, and exposure to naturally occurring asbestos. The Dixon Ranch CEQA Findings identified significant but mitigable air quality impacts associated with exposure to naturally occurring asbestos, and significant and unavoidable air quality impacts associated with construction and operation air pollutant emissions of the alternative. The Dixon Ranch Draft EIR identified no significant impacts associated with compliance with the AQAP or TAC exposure (El Dorado County 2014: 171–179). The Dixon Ranch Alternative would generate greater air pollutant emissions (El Dorado County 2014: Tables IV.D-5 and IV.D-8) and result in more severe air quality impacts as compared to the project (Draft EIR Tables 3.2-4 and 3.2-5) due to a larger extent of development. Thus, impacts under the Dixon Ranch Alternative would be greater than those that would occur with the project. (*Worse*)

ARCHAEOLOGICAL AND HISTORICAL CULTURAL RESOURCES

As identified above, the project would result in significant but mitigable archaeological resource impacts. The Dixon Ranch CEQA Findings also identified significant but mitigable archaeological impacts (El Dorado County 2015: 13–16). The Dixon Ranch Alternative would result in site grading and development similar in extent those of the project and the associated potential to affect archaeological resources. Thus, impacts under the Dixon Ranch Alternative would be similar to those that would occur with the project. (*Similar*)

BIOLOGICAL RESOURCES

The project would result in significant but mitigable biological resource impacts (with the exception of cumulative impacts to oak woodlands) associated with special-status plant species, special-status wildlife species, loss of riparian and sensitive habitat communities, wetlands, and compliance with local regulations that protect biological resources. The Dixon Ranch CEQA Findings identified significant but mitigable biological resource impacts associated with special-status wildlife species and compliance with local regulations that protect biological resources. The Dixon Ranch Draft EIR identified no significant impacts associated with special-status plant species (no special-status plant species were identified in site surveys) or wetland and riparian habitat loss (impacts would be addressed through project buffers and wetland permitting) (El Dorado County 2014: 218–227). Since completion of the Dixon Ranch Draft EIR, additional special-status species have been identified. The proposed project includes substantial modifications to the on-site ponds that were not proposed by the Dixon Ranch project. In addition, the proposed project and the Dixon Ranch Alternative would result in similar impacts to oak woodland resources. Thus, impacts under the Dixon Ranch Alternative would be similar to those that would occur with the project. (*Similar*)

ENERGY

As identified above, the project would result in significant but mitigable energy use impacts. The Dixon Ranch Draft EIR also identified significant but mitigable energy impacts (El Dorado County 2014: 325–326). The Dixon Ranch Alternative would generate greater energy demand as compared to the project due to a larger extent of development and associated increased vehicle energy use. Thus, impacts under the Dixon Ranch Alternative would be greater than those that would occur with the project. (*Worse*)

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

The project would result in significant but mitigable geologic and soil impacts and impacts associated with on-site wastewater disposal systems and paleontological resources. The Dixon Ranch CEQA Findings also identified significant but mitigable geologic and soil impacts, on-site wastewater disposal systems, and impacts on paleontological resources (El Dorado County 2015: 16–17). The Dixon Ranch Alternative would result in site grading and development similar in extent to those of the project and the associated potential to affect these resources. Thus, impacts under the Dixon Ranch Alternative would be similar to those that would occur with the project. (*Similar*)

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

As identified above, the project would result in significant and unavoidable GHG impacts. The Dixon Ranch CEQA Findings also identified significant and unavoidable GHG impacts (El Dorado County 2015: 32–34). The Dixon Ranch Alternative would generate greater GHG emissions (9,094.6 metric tons per year [El Dorado County 2014: 195]) as compared to the project (4,389 metric tons per year [Draft EIR Table 3.7-3]) due to a larger extent of development and associated increased vehicle use. Thus, impacts under the Dixon Ranch Alternative would be greater than those that would occur with the project. (*Worse*)

HAZARDS AND HAZARDOUS MATERIALS

The project would result in significant but mitigable hazard impacts associated with construction and demolition activities associated with existing structures. The Dixon Ranch CEQA Findings also identified significant but mitigable hazard impacts associated with construction and demolition activities associated with existing structures (El Dorado County 2015: 19). The Dixon Ranch Alternative would result in construction and demolition activities similar to those of the project. Thus, impacts under the Dixon Ranch Alternative would be similar to those that would occur with the project. (*Similar*)

HYDROLOGY AND WATER QUALITY

As identified in Section 3.9, “Hydrology and Water Quality,” the project would result in less-than-significant hydrology and water quality impacts associated with groundwater resources, water quality, drainage, and flooding. The Dixon Ranch CEQA Findings identified significant but mitigable hydrology and water quality impacts. This Dixon Ranch impact was mitigated through required compliance with state and El Dorado County water quality requirements. The Dixon Ranch Alternative would result site grading and development similar in extent to those of the project and the associated potential to affect hydrologic and water quality conditions of the site. Thus, impacts under the Dixon Ranch Alternative would be similar to those that would occur with the project. (*Similar*)

LAND USE, PLANNING, AND AGRICULTURE AND FORESTRY RESOURCES

As identified in Section 3.10, “Land Use, Planning, and Agriculture and Forestry Resources,” the project would not result in significant impacts on agriculture and forestry resources, result in the physical division of an established community, or conflict with land use policy provisions that address environmental effects. The Dixon Ranch CEQA Findings also stated that no significant impacts would occur associated with land use and agriculture (El Dorado

County 2015: 23). Forestry resource issues were not addressed in the Dixon Ranch EIR. The Dixon Ranch Alternative would result in development and residential densities similar to those of the project. Thus, impacts under the Dixon Ranch Alternative would be similar to those that would occur with the project. (*Similar*)

NOISE AND VIBRATION

As identified above, the project would result in significant but mitigable noise and vibration impacts associated with construction vibration and stationary sources; however, construction noise impacts would be significant and unavoidable. No significant traffic noise impacts were identified for the project. The Dixon Ranch CEQA Findings identified significant but mitigable noise impacts associated with on-site traffic noise levels and significant and unavoidable construction noise impacts. The Dixon Ranch Draft EIR identified no significant impacts associated with construction vibration or on-site stationary noise sources (El Dorado County 2014: 207–212). The Dixon Ranch Alternative would result in development and construction noise activities similar to those of the project. Thus, impacts under the Dixon Ranch Alternative would be similar to those that would occur with the project. (*Similar*)

POPULATION AND HOUSING

As identified in Section 3.12, “Population and Housing,” the project would not result in significant impacts associated with the displacement of substantial numbers of people or housing or induce substantial unplanned growth. The Dixon Ranch CEQA Findings also stated that no significant impacts associated with population and housing would occur (El Dorado County 2015: 24). The Dixon Ranch Alternative would result in development and associated population growth (1,718 new residents) in the El Dorado Hills Community Region similar (though higher) to that anticipated under the proposed project (854 to 1,077 residents), consistent with the El Dorado County General Plan provisions for urban growth in community regions, as well as with the Sacramento Area Council of Governments’ 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy. Thus, impacts under the Dixon Ranch Alternative would be similar to those that would occur with the project. (*Similar*)

PUBLIC SERVICES AND RECREATION

As identified in Section 3.13, “Public Services and Recreation,” the project would not result in significant impacts associated with fire protection services, law enforcement services, public schools, or park and recreation services that would trigger the need for facilities that would create impacts on the physical environment. The Dixon Ranch CEQA Findings also identified no significant impacts associated with fire protection services, law enforcement services, public schools, or park and recreation services (El Dorado County 2015: 25–26). The Dixon Ranch Alternative would result in development increased extent of residential development and associated public service demands to that of the project. Thus, impacts under the Dixon Ranch Alternative would be worse to those that would occur with the project. (*Worse*)

TRANSPORTATION

As identified above, the project would result in significant but mitigable transportation impacts associated with transportation hazards, with the exception of VMT impacts, which would be significant and unavoidable. The Dixon Ranch CEQA Findings identified significant but mitigable transportation impacts related to level of service at study intersections, with the exception of the Green Valley Road/El Dorado Hills Boulevard/Salmon Falls Road intersection and additional queue lengths at the Green Valley Road/Salmon Falls Road intersection and the El Dorado Hills Boulevard/Francisco Drive intersection (El Dorado County 2015: 28–30). The Dixon Ranch EIR did not address VMT impacts because the associated changes to the analysis of transportation impacts in the State CEQA Guidelines went into effect in 2020. The Dixon Ranch Alternative would consist of more residential units and generate more vehicle trips than the project. Thus, impacts under the Dixon Ranch Alternative would be worse than those that would occur with the project. (*Worse*)

UTILITIES AND SERVICE SYSTEMS

As identified in Section 3.15, “Utilities and Service Systems,” the project would result in less-than-significant impacts associated with water supply service, wastewater service, and solid waste service. The Dixon Ranch CEQA Findings identified significant but mitigable water supply and wastewater service impacts (El Dorado County 2015: 20–22). The Dixon Ranch Draft EIR did not identify any significant solid waste service impacts (El Dorado County 2014: 320). The Dixon Ranch Alternative would consist of more residential units and generate more water supply and wastewater service demand than the project. Specifically, the alternative would increase water demand by 158.2 acre-feet annually, wastewater service demand by 54,240 gallons per day, and 4,301 pounds per day of solid waste per day based on demand factors in Section 3.15, “Utilities and Service Systems.” Thus, impacts under the Dixon Ranch Alternative would be worse than those that would occur with the project. (*Worse*)

TRIBAL CULTURAL RESOURCES

The project would result in significant but mitigable impacts associated with the accidental discovery of tribal cultural resources. The Dixon Ranch Draft EIR did not address tribal cultural resources. The Dixon Ranch Alternative would result in site grading and development similar in extent those of the project and the associated potential to affect tribal cultural resources. Thus, impacts under the Mixed Use Development Alternative could be similar to those that would occur with the project. (*Similar*)

WILDFIRE AND EVACUATION

The project would result in significant but mitigable impacts related to evacuation during a wildfire event. The Dixon Ranch Draft EIR did not identify a fire safe plan and concluded that there would no significant wildfire or evacuation impacts (El Dorado County 2014: 287-288). It is important to note that the State CEQA Guidelines were updated after completion of this EIR and includes expanded direction on the consideration of wildfire and evacuation impacts (State CEQA Guidelines Appendix G, Section XX, Wildfire) than what existed in 2014. The Dixon Ranch Alternative would have a larger extent of development and associated population on-site that could create a fire event or would be involved with an evacuation event that could increase the length of time the length of time required to evacuate the project area. This alternative would be subject to applicable fire protection standards including CCR Title 14, Sections 1270 through 1276 (Fire Safe Regulations), CCR Title 24, Part 9, Section 4903 (Plans), El Dorado County Fire Protection Standard W-002 (Wildland Interface Fire Protection Plans), and El Dorado County General Plan Policy 6.2.2.2. Thus, impacts under the Dixon Ranch Alternative could be greater than those that would occur with the project. (*Worse*)

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Because the No Project–No Development Alternative would avoid all adverse impacts resulting from construction and operation of the project analyzed in Chapter 3, it is the environmentally superior alternative. However, the No Project–No Development Alternative would not meet the objectives the project as presented above in Section 5.2.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126[d][2]) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As illustrated in Table 5-1, the No Project/Development Consistent with the General Plan Alternative would be the environmentally superior action alternative because the environmental impacts would be less than those of the proposed project. However, this alternative would not meet the basic objectives of the project to provide a range of residential densities and land use patterns that maintains and enhances the character of the existing rural and urban community consistent with the El Dorado County General Plan policy provisions of directing urban/suburban growth within community regions (Objective 2.1.1 and associated Policy 2.1.1.2).

Table 5-1 Summary of Environmental Effects of the Alternatives Relative to Those of the Proposed Project

Environmental Topic	Proposed Project Impact Summary	Alternative 1: No Project – No Development Alternative	Alternative 2: No Project/Development Consistent with the General Plan Alternative	Alternative 3: Mixed Use Development Alternative	Alternative 4: Reduced Build Alternative	Alternative 5: Dixon Ranch Alternative
Aesthetics	Less than significant	Less	Less	Worse	Less	Worse
Air Quality	Less than significant (with mitigation)	Less	Less	Worse	Less	Worse
Archaeological and Historical Cultural Resources	Less than significant (with mitigation)	Less	Less	Similar	Less	Similar
Biological Resources	Significant and unavoidable (cumulative oak woodland impacts only)	Less	Less	Less	Less	Similar
Energy	Less than significant (with mitigation)	Less	Less	Worse	Less	Worse
Geology, Soils, and Paleontological Resources	Less than significant (with mitigation)	Less	Less	Similar	Less	Similar
Greenhouse Gas Emissions and Climate Change	Significant and unavoidable	Less	Less	Worse	Less	Worse
Hazards and Hazardous Materials	Less than significant (with mitigation)	Less	Similar	Similar	Similar	Similar
Hydrology and Water Quality	Less than significant	Less	Worse	Similar	Less	Similar
Land Use, Planning, and Agriculture and Forestry Resources	Less than significant	Less	Less	Similar	Similar	Similar
Noise and Vibration	Significant and unavoidable (construction noise impacts only)	Less	Less	Worse	Less	Similar
Population and Housing	Less than significant	Less	Less	Worse	Less	Similar
Public Services and Recreation	Less than significant	Less	Less	Worse	Less	Worse
Transportation	Significant and unavoidable (VMT impacts only)	Less	Less	Less	Less	Worse
Utilities and Service Systems	Less than significant	Less	Less	Worse	Less	Worse
Tribal Cultural Resources	Less than significant (with mitigation)	Less	Less	Similar	Less	Similar
Wildfire and Evacuation	Less than significant (with mitigation)	Less	Less	Worse	Less	Worse

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6 OTHER CEQA SECTIONS

6.1 GROWTH INDUCEMENT

California Environmental Quality Act (CEQA) Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an environmental impact report (EIR). Section 15126.2(d) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in any of the following:

- ▶ substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- ▶ substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or
- ▶ removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open-space land to urban uses, and other effects. These indirect or secondary effects of growth may result in significant environmental impacts. CEQA does not require that the EIR speculate unduly about the precise location and site-specific characteristics of significant, indirect effects caused by induced growth, but a good-faith effort is required to disclose what is feasible to assess. Potential secondary effects of growth could include consequences – such as conversion of open space to developed uses, increased demand on community and public services and infrastructure, increased traffic and noise, degradation of air and water quality, or degradation or loss of plant and wildlife habitat – that are the result of growth fostered by the project.

The decision to allow those projects that result from induced growth is the subject of separate discretionary processes by the lead agency responsible for considering such projects. Because the decision to allow growth is subject to separate discretionary decision making, and such decision making is itself subject to CEQA, the analysis of growth-inducing effects is not intended to determine site-specific environmental impacts and specific mitigation for the potentially induced growth. Rather, the discussion is intended to disclose the potential for environmental effects to occur more generally, such that decision makers are aware that additional environmental effects are a possibility if growth-inducing projects are approved. The decision of whether impacts do occur, their extent, and the ability to mitigate them is appropriately left to consideration by the agency responsible for approving such projects at such times as complete applications for development are submitted.

6.1.1 Summary of Growth-Inducing Impacts

As stated above, a project is considered growth-inducing if it would directly or indirectly foster substantial economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding element. Examples of projects likely to have significant 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 industrial parks in areas that are only sparsely developed or are underdeveloped. Typically, development projects on sites that are designated for development and surrounded by existing suburban uses are not considered adversely growth-inducing because growth in areas that already have development and infrastructure available to serve new development are generally considered environmentally beneficial.

6.1.2 Growth-Inducing Impacts of the Project

Implementation of the proposed project would result in an increase in population within the unincorporated County. As previously mentioned in Chapter 2, "Project Description," of this Draft EIR, the proposed project consists of General Plan land use designation amendments, rezoning, and approval of a tentative subdivision map to create 379 residential lots, clubhouse lot, park site lot, six landscape lots, and nine open space lots. The project site is surrounded by suburban development (or planned suburban development). Additionally, this development would occur within the General Plan El Dorado Hills Community Region Boundary; therefore, the General Plan anticipates development at the project site.

Implementation of the proposed project would include connections and installation of utilities and infrastructure (water, sewer, and roadways) to serve the new units. While these infrastructure improvements would connect to adjacent development, the improvements would not encourage growth in these adjacent areas, as they are already developed with suburban uses. Therefore, the growth that would occur as a result of the proposed project would not be considered substantial or adverse.

As previously described in Section 3.12, "Population and Housing," the proposed project would result in a range between 854 to 1,077 residents. As the project would not provide any commercial uses, the project would not generate any potential employment opportunities. The County expects a 0.9 percent annual growth rate per year between 2020 and 2030, estimating approximately 1,724 new residents per year. While the population of El Dorado County has been on a slow decline since 2020 and may not meet future projected population estimates, the anticipated population increase as a result of the project would fall within the County' projected and planned population growth. Although not a substantial increase, the proposed 379 residential lots and population of 854 to 1,077 new residents associated with the proposed project would directly contribute to population growth within El Dorado County, but it would not in and of itself cause the growth projections to be exceeded and would represent a small percentage of anticipated future growth. Additionally, the project site is included in Sacramento Area Council of Governments' (SACOG's) 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) as part of an Established Community and is considered to be accounted for in SACOG's growth pattern estimation for the region. The 2020 MTP/SCS forecasts about 2,330 new housing units in El Dorado Hills and 4,070 new housing units in the Established Community Type in El Dorado County (SACOG 2019). The project would account for approximately 16 percent of total new housing units in El Dorado Hills by 2040. Therefore, the proposed project would not result in substantial direct growth-inducement.

6.1.3 Elimination of Obstacles to Growth

The elimination of either physical or regulatory obstacles to growth is considered a growth-inducing impact. A physical obstacle to growth typically involves the lack of public infrastructure. The extension of public infrastructure, including roadways, water mains, and sewer lines, into areas not currently provided with roads and utilities would be expected to support new development. Similarly, the elimination of or a change to a regulatory obstacle, including growth and development policies, could result in new growth.

As mentioned in Chapter 2, "Project Description," the proposed project includes several utility infrastructure improvements such as circulation, drainage, off-site roadway facility, off-site water distribution, off-site wastewater conveyance, and off-site electrical service improvements that would serve the project site. Implementing the proposed project therefore would result in the elimination of these growth obstacles because it would involve constructing and installing the infrastructure necessary to serve development of the project site. Connections to services and facilities constructed to connect to the proposed project to existing facilities or accommodate the addition of the proposed project would generally be proportionate to the level necessary to accommodate the project and would not, in themselves, increase the development potential of properties outside of the project site that were not planned for development in the project description or the El Dorado County General Plan. Therefore, these improvements to several utility infrastructures would be growth accommodating but it would not be growth inducing.

6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The State CEQA Guidelines Section 15126.2(b) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 3 (project level impacts) and Chapter 4, "Cumulative Impacts," of this Draft EIR, after implementation of the recommended mitigation measures, most of the impacts associated with the proposed Generations at Green Valley Project would be reduced to a less-than-significant level. The following impacts are considered significant and unavoidable; that is, no feasible mitigation is available to reduce the project's impacts to a less-than-significant level.

- ▶ Impact 3.7-1 and 4-11: The project would result in GHG emissions during both construction and operational phases. While mitigation (Mitigation Measures 3.7-1a, 3.7-1b, and 3.14-2) has been identified to address this impact, the project would result in a significant and unavoidable impact under project and cumulative conditions.
- ▶ Impact 3.11-1: Short-term construction-generated noise levels associated with the project would expose nearby noise-sensitive receptors to noise levels that could exceed the FTA's recommended daytime construction noise criteria of 90 dB L_{eq} within off-site improvement areas. While mitigation (Mitigation Measure 3.11-1) has been identified to address this impact, the project would result in a significant and unavoidable impact under project conditions.
- ▶ Impact 3.14-2 and 4-24: Implementation of the project would exceed the significance threshold of 19.1 VMT per capita for residential uses (i.e., 15 percent below the existing county VMT per capita) as identified in County Resolution 141-2020. While mitigation (Mitigation Measure 3.14-2) has been identified to address this impact, the project would result in a significant and unavoidable impact under project and cumulative conditions.
- ▶ Impact 3.15-1: The project would include the construction of on-site and off-site infrastructure improvements that would result in significant environmental impacts related to construction noise. While mitigation (Mitigation Measure 3.11-1), has been identified to address this impact, the project would result in a significant and unavoidable impact under project conditions.
- ▶ Impact 4-8: The project would contribute to the cumulative loss of oak woodland habitat due to the anticipated removal of approximately 56 acres of oak woodland habitat. Thus, the project's contribution to cumulative oak woodland loss identified in the Biological Resources Policy Update and ORMP Final EIR would be cumulatively considerable and significant and unavoidable.

6.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the project. Specifically, the State CEQA Guidelines section 15126.2(c) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generation to similar uses. Also, irreversible damage can result

from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The State CEQA Guidelines describe three distinct categories of significant irreversible changes, including changes in land use that would commit future generations to specific uses; irreversible changes from environmental actions; and consumption of nonrenewable resources.

The proposed project would result in the future development of undeveloped land, which is a long-term commitment. Though the project proposes 57.58 acres of open space lots, 176.39 acres of undeveloped land would be rezoned for future residential units, 4 acres would be proposed as an area for a park site, and 3.3 acres would be proposed as an area for a clubhouse. Therefore, a total of approximately 183.69 acres would be rezoned for future development. However, while the proposed project would result in the future development of land, the land could eventually be redeveloped with other land uses or remove the homes if the presently proposed residential uses were to become obsolete.

Irreversible environmental changes would result from the actions associated with the conversion of a largely undeveloped site to future residential uses. Implementation of the proposed project would include the construction of off-site and on-site improvements as well as the rezoning of the project site that would result in the construction of structures, roads, and other infrastructure, which would be composed of a variety of nonrenewable (metal, gravel, concrete) or slowly renewable resources (wood), and would be fueled by using primarily non-renewable fossil fuel sources. While the project would require several additional utility improvements, the scale of such consumption for the proposed project would be typical for a residential development.

The proposed project would convert existing seasonal grazing land to a residential development. This would result in the consumption of a non-renewable resource, as grazing land would be permanently removed. However, the removal would not constitute a significant impact as the project site is not defined as important farmland under CEQA as described in Section 3.11, "Land Use, Planning, and Agriculture and Forestry Resources."

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