DESIGN REVIEW PERMIT DR19-0006/ COOL GENERAL RETAIL

Draft Environmental Impact Report

SCH# 2020049050
January 2021

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DRAFT

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AADT	Annual Average Daily Traffic
AAQS	ambient air quality standards
AB	Assembly Bill
AF	Acre-Feet
ANSI	American National Standards Institute
APCO	Air Pollution Control Officer
APE	Area of Potential Effect
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
ATCM	airborne toxic control measure
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
Cal/OSHA	California Occupational Safety and Health Administration
CalEPA	California Environmental Protection Agency
CAP	climate action plan
CARB	California Air Resources Board
CBC	California Building Code
CC-DC	Community Commercial-Design Control
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CG-DC	General Commercial with a Design Control overlay
CH_4	methane
CHP	California Highway Patrol
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
COA	condition of approval
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
DOT	Department of Transportation
DPM	Diesel particulate matter
DRA	Debris Recycling Acknowledgment
DTSC	Department of Toxic Substances Control

Acronym/Abbreviation	Definition
DWR	Department of Water Resources
EDCAQMD	El Dorado County Air Quality Management District
EDCTA	El Dorado County Transit Authority
EIA	Energy Information Administration
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act of 2007
EMFAC	Mobile Source Emissions Inventory Model
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESCP	Erosion and Sediment Control Plan
EV	electric vehicle
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FRAP	Fire and Resources Assessment Program
GDPUD	Georgetown Divide Public Utility District
GHG	greenhouse gas
GWP	global warming potential
H2S	Hydrogen sulfide
HAP	hazardous air pollutant
HCFC	hydrochlorofluorocarbon
HCP	habitat conservation plan
HFC	hydrofluorocarbon
HOA	home owners association
IBC	Important Biological Corridor
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
ISA	Integrated Science Assessment
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation
LAMP	Local Agency Management Plan
LDIGR	Interim Land Development and Intergovernmental Review
LHMP	Local Hazard Mitigation Plan
LOS	level of service
MBTA	Migratory Bird Treaty Act
MCAB	Mountain Counties Air Basin
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MPO	metropolitan planning organization
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MT	metric ton
MVM	Million Vehicle Miles
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program

Acronym/Abbreviation	Definition
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NHTSA	National Highway Traffic Safety Administration
NIST	National Institute of Standards and Technology
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOA	Naturally Occurring Asbestos
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act of 1977
NRHP	National Register of Historic Places
NSF	National Science Foundation
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
OPR	Office of Planning and Research
ORMP	Oak Resources Management Plan
OSHA	Occupational Health and Safety Administration
PFC	perfluorocarbon
PM_{10}	coarse particulate matter
$PM_{2.5}$	fine particulate matter
RFS	Renewable Fuel Standard
ROG	reactive organic compounds
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF	square foot
SF_6	sulfur hexafluoride
SFONA	Sacramento Federal Ozone Nonattainment Area
SLCP	short-lived climate pollutant
SLOAPCD	San Luis Obispo Air Pollution Control District
SO_2	sulfur dioxide
SO_4	Sulfates
SR	State route
SSBMI	Shingle Springs Band of Miwok Indians
SWMP	Storm Water Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TCR	Tribal Cultural Resource
TIA	Transportation Impact Analysis
TMDL	Total Maximum Daily Load
TPZ	Timberland Preserve Zone
TWLTL	two-way-left-turn-lane

Acronym/Abbreviation	Definition
UAIC	United Auburn Indian Community of the Auburn Rancheria
UNFCCC	United Nations Framework Convention on Climate Change
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological survey
USPS	U.S. Postal Service
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
WBWG	Western Bat Working Group
WDR	Waste Discharge Requirements
WUI	wildland-urban interface

Executive Summary

El Dorado County has prepared this Draft Environmental Impact Report (EIR) to inform the community, responsible agencies, trustee agencies, and other interested agencies and organizations, of the potential significant environmental effects resulting from implementation of the proposed Cool General Retail Project. This Executive Summary lists the potentially significant environmental impacts and feasible mitigation measures or project alternatives that would avoid or substantially reduce those impacts. This Draft EIR was prepared in compliance with the California Environmental Quality Act (CEQA) (California Public Resources Code Section 21000-21189.3) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.).

ES.1 Summary of Impacts

Table ES-1 presents a summary of the potential environmental impacts that could result from the project, their level of significance, proposed mitigation measures, and the level of significance of the impact after the implementation of the mitigation measures.

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Aesthetics – No Significant Impacts			
3.1-1. The project would not substantially degrade the existing visual character or quality of the site and its surroundings.	LTS	N/A	LTS
3.1-2. The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LTS	N/A	LTS
Air Quality			
3.1-1. The project would not conflict with or obstruct implementation of the applicable air quality plan.	LTS	N/A	LTS
3.2-2. The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	LTS	N/A	LTS
3.2-3. The project may expose sensitive receptors to substantial pollutant concentrations.	PS	**MM-AQ-1: Asbestos Assessment and Minimization.** The proposed project applicant (or their successor) shall provide a geologic evaluation of the property to determine that no serpentine, ultramafic rock, or asbestos is likely to be found in the area to be disturbed. This geologic evaluation shall be prepared by a Professional Geologist and submitted to the Air Pollution Control Officer (APCO) for consideration prior to issuance of building permits. If an exemption is not granted by the APCO, the proposed project sponsor shall adhere to all applicable regulations and control measures for fugitive dust emissions and asbestos hazards mitigation as required by the El Dorado County Air Quality Management District (EDCAQMD) Rule 223 (Fugitive Dust) and Rule 223-2 (Fugitive Dust – Asbestos Hazard Mitigation).	LTS
3.2-4. The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTS	N/A	LTS

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Biological Resources			
3.3-1. The project could have a substantial adverse effect on species identified as a candidate, sensitive, or special-status species in local or regional plans, by the California Department of Fish and Wildlife, or U.S. Fish and Wildlife Service.	PS	**BIO-1:** If project-related construction activities including site clearing, tree removal and grading are scheduled during the nesting season (typically February 1 to September 30), a focused pre-construction survey for nests shall be conducted by a qualified biologist within three (3) days prior to the beginning of project-related activities. The qualified biologist shall survey the area within a minimum 500-foot radius around the boundaries of the project site. If an active nest is found, a non-disturbance buffer shall be established around the nest. The width of the buffer shall be determined by the qualified biologist based on the species of bird, its general tolerance of disturbance, and the type of activity proposed. If a lapse in project-related work of seven (7) days or longer occurs, another focused survey shall be conducted. Monitoring Requirement: The applicant shall conduct all construction activities outside the nesting season or perform a pre-construction survey and implement the avoidance measures determined by the qualified biologist prior to initiation of construction activities. This mitigation measure shall be noted on grading and construction plans. If a pre-construction survey is required, the applicant shall provide evidence of the survey to the El Dorado County Planning and Building Department to verify compliance prior to issuance of grading and building permits. Monitoring Responsibility: El Dorado County Planning and Building Department.	LTS

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
		BIO-2: A pre-construction survey shall be performed by a qualified biologist 30 days prior to initiation of construction activities to assess whether roosting bats occur in the abandoned house on the proposed subdivision site. If any roosting bats are detected, consultation with CDFW shall be initiated to identify appropriate measures to be taken to avoid and/or minimize impacts to the species, which can include approval to exclude any bats potentially found on the site before vegetation removal or grading. Monitoring Requirement: This mitigation measure shall be noted on grading and construction plans. The applicant shall provide evidence of the survey to the El Dorado County Planning and Building Department to verify compliance prior to issuance of grading and building permits. Monitoring Responsibility: El Dorado County Planning and Building Department.	
3.3-2. The project would not interfere with the movement of any migratory fish or wildlife species or with established native resident or migratory wildlife corridors or affect the use of native wildlife nursery sites.	LTS	N/A	LTS
3.3-3. The project would not conflict with any local policies or ordinances protecting biological resources, including the County's tree preservation ordinance.	LTS	N/A	LTS
Cultural Resources			
3.4-1. The project would not cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.	LTS	N/A	LTS
3.4-2. The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	LTS	N/A	LTS

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
3.4-3. The project would not disturb any human remains, including those interred outside of dedicated cemeteries.	LTS	N/A	LTS
3.4-4. The project could cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074.	PS	**TCR-1:** If any Tribal Cultural Resources (TCRs) are discovered during ground disturbing construction activities, all work shall cease within 100 feet of the find. The appropriate tribal representatives from culturally affiliated tribes shall be immediately notified. Work at the discovery location shall not resume, until the potential TCR is determined, in consultation with culturally affiliated tribes, that the find is not a TCR, or that the find is a TCR and all necessary investigation and evaluation of the discovery under the requirements the Public Resources Code has been satisfied. Preservation in place is the preferred alternative, and every effort must be made to preserve the identified resource in place, including but not limited to project redesign. Should be project redesign be required, the project shall be required to obtain a revision to the Design Review Permit. The contractor shall implement any measures deemed by the County to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find as necessary Monitoring Requirement: This mitigation measure shall be noted on grading and construction plans. Monitoring Responsibility: El Dorado County Planning and Building Department.	LTS

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Energy			
3.5-1. The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	LTS	N/A	LTS
3.5-2. The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	N/A	LTS
Geology and Soils			
3.6-1. The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.	LTS	N/A	LTS
3.6-2. The project would not result in substantial soil erosion or the loss of topsoil.	LTS	N/A	LTS
3.6-3. The project would not 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 lateral spreading, liquefaction, or seismically induced settlement.	LTS	N/A	LTS
3.6-4. The project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) but would not create substantial risks to life or property.	LTS	N/A	LTS
3.6-5. The project would not 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.	LTS	N/A	LTS
3.6-6. The project would not directly or indirectly destroy a unique paleontological resources or site or unique geologic feature.	LTS	N/A	LTS

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Greenhouse Gas Emissions			
3.7-1. The project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	LTS	N/A	LTS
3.7-2. The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	LTS	N/A	LTS
Hazards and Hazardous Materials			
3.8-1. The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS	N/A	LTS
3.8-2. The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	LTS	N/A	LTS
3.8-3. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	N/A	LTS
3.8-4. The project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	LTS	N/A	LTS
Hydrology and Water Quality			
3.9-1. The project would not water quality standards or waste discharge requirements or otherwise degrade surface or ground water quality.	LTS	N/A	LTS

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
3.9-2. The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	LTS	N/A	LTS
3.9-3. The project would not substantially alter the existing drainage pattern of the Master Plan area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			
i. result in substantial erosion or siltation on or off site;	LTS	N/A	LTS
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	LTS	N/A	LTS
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	LTS	N/A	LTS
iv. impede or redirect flood flows.	LTS	N/A	LTS
3.9-4. The project would not risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone.	NI	N/A	NI
3.9-5. The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LTS	N/A	LTS
Land Use and Planning			
3.10-1. The project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	N/A	LTS

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Public Services and Recreation			
3.11-1. The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities:			
Fire protection	LTS	N/A	LTS
Law Enforcement	LTS	N/A	LTS
Other Services	LTS	N/A	LTS
3.11-1. The project would not 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.	LTS	N/A	LTS
Transportation			
3.12-1. The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	LTS	N/A	LTS
3.12-2. The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	LTS	N/A	LTS
3.12-3. The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LTS	N/A	LTS
3.12-4. The project would not result in inadequate emergency access.	LTS	N/A	LTS

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
Utilities and Service Systems			
3.13-1. The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	LTS	N/A	LTS
3.13-2. The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	N/A	LTS
3.13-3. The project would result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	LTS	N/A	LTS
3.13-4. The project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of federal, state, and local management and reduction statutes or solid waste reduction goals.	LTS	N/A	LTS
Wildfire			
3.14-1. The project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	LTS	N/A	LTS
3.14-2. The project would not, 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.	LTS	N/A	LTS
3.14-3. The project would not require the installation or maintenance of associated infrastructure (such as	LTS	N/A	LTS

Table ES-1. Summary of Project Impacts

Environmental Topic	Impact	Mitigation Measure(s)	Level of Significance After Mitigation
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.			
3.14-4. The project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	LTS	N/A	LTS
Urban Decay			
3.15-1. The project would not create multiple long-term store vacancies or result in the abandonment of multiple buildings within the retail market served by the proposed project, which would result in the physical deterioration of properties or structures that impairs the proper utilization of the properties or structures, or the health, safety, and welfare of the surrounding community.	LTS	N/A	LTS

Notes: LTS = Less than Significant, N/A = Not Applicable, NI = No Impact, PS = Potentially Significant, SU = Significant and Unavoidable

ES.2 Analysis of Alternatives

Alternatives Considered

Alternatives to the proposed project are discussed in Chapter 4. This discussion includes alternatives that were identified but dismissed from further consideration. Only one feasible alternative was identified that would avoid or substantially lessen one ore more project impacts.

- No Project Alternative

No Project Alternative

As required by the CEQA Guidelines, an EIR's alternatives analysis must include consideration of the No Project Alternative. The "No Project" analysis discusses the existing conditions as well as what would reasonably be expected to occur in the foreseeable future if the Project was not approved (CEQA Guidelines Section 15126.6 (e)(2) and (3)(A)). For this analysis, the No Project assumes no construction.

ES.3 Areas of Controversy

The CEQA Guidelines, Section 15123 (b)(2), require the executive summary of an EIR to disclose areas of controversy known to the lead agency that have been raised by the agencies and the public. The County circulated a Notice of Preparation (NOP) to solicit agency and public comments on the scope and environmental analysis to be included in the EIR. Comments expressed concern with traffic congestion, traffic safety, and economic competition. Traffic congestion is not considered to be an environmental effect, as further described in Section 3.12, Transportation. Economic competition is not an environmental effect; however, the indirect effects of economic change are discussed in Section 3.15, Urban Decay.

ES.4 Issues to be Resolved by the Lead Agency

The CEQA Guidelines, Section 15123(b)(3), require that an EIR contain a discussion of issues to be resolved. With respect to the proposed project, the issue at hand is the approval of a design review permit. The lead agency must determine if the design is consistent with the El Dorado County Zoning Ordinance and Design Guide.

1 Introduction

1.1 Purpose and Intended Use of this EIR

The County of El Dorado (County) as the lead agency has prepared this Draft Environmental Impact Report (Draft EIR) to inform the general public, the local community, responsible agencies, trustee agencies, and other interested public agencies, including local Native American tribes, and the County's decision-making bodies (County Planning Commission and/or Board of Supervisors) regarding the potential significant environmental effects resulting from implementation of the DR19-0006-Cool General Retail Project (proposed project), as well as feasible measures to mitigate those significant effects and alternatives to the proposed project. This Draft EIR was prepared in compliance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC], Section 21000 et seq.), and the CEQA Guidelines (14 CCR 15000 et seq.).

As described in CEQA Guidelines Section 15121(a), an EIR is an informational document that assesses potential environmental impacts of a proposed project, as well as identifies feasible mitigation measures and alternatives to a proposed project that could reduce or avoid adverse environmental impacts. As the CEQA lead agency for this project, the County is required to consider the information in the EIR along with any other available information in deciding whether to approve the requested project entitlements. The basic requirements for an EIR include providing information that establishes the environmental setting (or project baseline), and identifying environmental impacts, mitigation measures, project alternatives, growth inducing impacts, and cumulative impacts. In a practical sense, an EIR functions as a method of fact-finding, allowing an applicant, the public, other public agencies, and agency staff an opportunity to collectively review and evaluate baseline conditions and project impacts through a process of full disclosure. Additionally, this EIR provides the primary source of environmental information for the lead agency to consider when exercising any permitting or approval authority directly related to implementation of this project. It is not the intent of an EIR to recommend either approval or denial of a project.

1.2 Project Background and Overview

The project site is located on the east side of State Route 49 (SR 49), south of the intersection with Northside Drive in the community of Cool, El Dorado County, California.

The project applicant proposes to construct and operate a 9,100 sq. ft. commercial retail building (Dollar General) on a 1.68-acre site. The single-story building would have a maximum height of 33 feet. The building would be located in the southerly half of the project site, facing the intersection of Highway 49 and Northside Drive. Site improvements would include a driveway, parking lot, utilities, lighting, signage, and landscaping. The project design is in the style of new traditional, Western false front architecture. The design is responsive to community input and designed to replicate the style of the "Boardwalk" project on the west side of SR 49. The building would have a central entrance, and parapet walls extending along the building façade. The project would include parking for 31 vehicles, a refuse enclosure for solid waste, landscaping, an on-site septic system, and on-site stormwater treatment.

The parcel is zoned General Commercial with a Design Control overlay (CG-DC). The intent of the -DC combining zone is a discretionary permit that ensures architectural supervision and consistency with the adopted Design Guidelines (https://www.edcgov.us/Government/planning/Documents/Community-Design-Guide-Reformatted-Adopted-4-24-18.pdf). Typically, during the Design Review Permit process, the Planning Director has the initial

approval authority over a project which is not visible from designated state scenic highway corridors. The proposed project is not visible from a designated state scenic highway corridor. For the proposed project, the Planning Director opted to refer the project to the Planning Commission, as provided for by County procedure. The proposed project was considered by the El Dorado County Planning Commission at their regular meeting on May 28, 2020. The Commission adopted a Mitigated Negative Declaration for the project and approved the Design Review Permit. The Planning Commission approval was appealed to the Board of Supervisors, who heard the item at their regular meeting of July 14, 2020. The Board vacated the Commission approval and directed County staff to prepare an EIR for the proposed project.

1.3 EIR Process

Notice of Preparation

In accordance with CEQA Guidelines Section 15082, a Notice of Preparation (NOP) was circulated for public and agency review from September 22 through October 21, 2020 (included as Appendix A). The purpose of the NOP is to provide notification that an EIR for the proposed project is being prepared and to solicit guidance on the scope and content of the document. The County also prepared an Initial Study (IS) for the project that was appended to the NOP identifying those issue areas where impacts would be less than significant.

Eleven comment letters were received during the scoping period. No local, state or federal agencies provided comment during the scoping period. A summary of the comments received on the NOP is included in the Executive Summary, as well as in the introduction of each technical section in Chapter 3. The scoping comments received are included in Appendix B to this EIR.

Draft EIR and Public Review

This Draft EIR is being circulated for public review and comment for a period of 45 days. The beginning and end dates of the comment period are identified in the Notice of Availability for this Draft EIR. Written comments may be sent to:

Evan Mattes, Senior Planner
County of El Dorado Development Services Division
2850 Fairlane Court
Placerville, California 95667
Email: mailto:CoolGeneralRetail@edcgov.us

The public can review the Draft EIR and supporting documents at the following address during normal business hours (currently 8:00 – 12:00, Monday, Tuesday, Thursday and Friday, 9:00 – 12:00 Wednesday, please check prior to visiting; afternoon appointments also available) or on the County's website at: https://www.edcgov.us/Government/planning

County of El Dorado Planning and Building Department
2850 Fairlane Court
Placerville, California 95667

Final EIR and EIR Certification

Upon completion of the Draft EIR public review period, a Final EIR will be prepared that will include written comments on the Draft EIR received during the public review period and the County's responses to those comments. The Final EIR will also include the Mitigation Monitoring and Reporting Program (MMRP) prepared in accordance with Section 21081.6 of the Public Resource Code. The Final EIR will address any revisions to the Draft EIR made in response to agency or public comments. The Draft EIR and Final EIR together will comprise the EIR for the proposed project. Before the County can approve the project, it must first certify that the EIR has been completed in compliance with CEQA, that the County Planning Commission has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the County. The County Planning Commission is also required to adopt Findings of Fact and a Statement of Overriding Considerations (for any significant and unavoidable impacts) explaining the decision to balance the benefits of the project against unavoidable environmental impacts if it approves the proposed project (see also Public Resources Code Section 21081).

Type of EIR and EIR Adequacy

This EIR is a "Project EIR," pursuant to CEQA Guidelines Section 15161. A Project EIR examines the environmental impacts of a specific project. This type of EIR focuses on the changes in the environment that would result from implementation of the project, including construction and operation.

The level of detail contained throughout this EIR is consistent with Section 15151 of the CEQA Guidelines, which states the following:

> An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of the environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

1.4 Scope of the Draft EIR

Based on the scope of the proposed project as described in the NOP and IS and comments received from the public and public agencies (see Appendix A), the following issues were determined to be potentially significant and are therefore addressed in Chapter 3, Environmental Impacts and Mitigation Measures, of this document:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Tribal Cultural Resources
- Energy
- Geology/Soils
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Transportation/Traffic
- Public Services and Recreation
- Public Utilities
- Wildfire
- Urban Decay

The CEQA-mandated environmental areas of agricultural resources and forest land, mineral resources, noise, and population and housing are evaluated in the IS Checklist found in Appendix A and summarized in Chapter 4 of this EIR. As described in Chapter 4, the proposed project would not affect these issue areas and impacts were found to either be less than significant with mitigation or compliance with existing state requirements.

This EIR will also address the cumulative environmental effects of the project in combination with other closely related past, present, and reasonably foreseeable probable future projects in the area. This will serve to satisfy CEQA's requirements that a project's potential cumulative impacts be analyzed in the EIR. It should be noted that the intent of CEQA is not to evaluate the impacts of the cumulative projects on the project, but instead to evaluate the potential impacts on the environment resulting from implementation of the project in conjunction with the cumulative projects.

In compliance with CEQA Guidelines Section 15126.6, this EIR also describes and evaluates the comparative merits of a reasonable range of alternatives to the proposed project, including the required No Project Alternative, and also identifies the environmentally superior alternative. This EIR also describes alternatives that were considered but rejected by the lead agency as infeasible and explains the reasons why.

1.5 Organization of the Draft EIR

Executive Summary — Summarizes the elements of the project and the environmental impacts that could result from implementation of the proposed project and provides a table which lists impacts, describes proposed mitigation measures, and indicates the level of significance of impacts both before and after mitigation.

Chapter 1, Introduction — Provides an introduction and overview of the EIR process and describes the intended use of the EIR and the review process.

Chapter 2, Project Description — Provides a detailed description of the proposed project, including its location, background information, project history, project objectives, and technical characteristics.

Chapter 3, Environmental Impacts and Mitigation Measures — Describes the baseline environmental setting and provides an assessment of potential project impacts for each technical issue area presented. Each section is divided into four sub-sections: Introduction, Environmental Setting, Regulatory Background, and Impacts and Mitigation Measures (project-specific and cumulative).

Chapter 4, Project Alternatives — Describes and compares the proposed project alternatives to the proposed project.

Chapter 5, Other CEQA Considerations — Provides information required by CEQA regarding impacts that would result from the proposed project, including a summary of cumulative impacts, secondary impacts including potential impacts resulting from growth inducement, and significant irreversible changes to the environment.

Chapter 6, Preparers and Persons Consulted — Lists report authors who provided technical assistance in the preparation and review of the EIR.

Appendices (included on CD at the back of the Draft EIR) — Includes various documents and data that support the analysis presented in the Draft EIR.

1.6 References

El Dorado County. 1981. *Community Design Guide*. Prepared November 1981, reformatted May 2017.

2 Project Description

2.1 Project Overview

The project consists of a proposed 9,100 square foot (SF). commercial retail building on a 1.68-acre site. The project site is located on the east side of State Route 49 (SR 49), south of the intersection with Northside Drive in the community of Cool, El Dorado County, California (see Figure 2-1). The project requires approval of a Design Review Permit, DR19-0006, by El Dorado County.

2.2 Project Location and Surrounding Land Uses

The project site fronts on the East side of Highway 49 (Golden Chain Highway) and the south side of Northside Drive, North of Highway 193 (Georgetown Road) approximately 400 feet, in the community of Cool, El Dorado County, California (see Figure 2-1). The project site is identified as Assessor's Parcel Number (APN) 071-500-037.

The 1.68-acre project site is undeveloped and has gently sloping to flat topography (see Figure 2-2). Elevations at the site range from approximately 1,525 to 1,555 feet above mean sea level (msl), for a difference of about 30± feet across the entire site. The center of the site has previously been graded. Drainage within the subject property generally flows to the southeast. Most of the vegetation on the site consists of moderate amounts of annual weeds/grasses, along with small to large trees, including several oak trees, scattered throughout the subject site (see Figure 2-4).

There is a commercial building north of the project site (across Northside Drive) that includes a restaurant, offices, and a U.S. Post Office, totaling approximately 8,800 SF The parcel immediate east is vacant, while further east is a cellular tower (approximately 225 feet). To the south is a vacant parcel and then Highway 193. South of Highway 193 is a retail shopping center, anchored by a Holiday Market. To the west, on the other side of Highway 49, is the central commercial area of Cool, which includes several restaurants, retail stores, a feed and ranch supply store, a gas station, auto repair, and a veterinary hospital. Fire Station No. 72 of the El Dorado County Fire Protection District is located northwest of the project site, on St. Florian Ct. The Olmstead Loop Trailhead, part of the Auburn State Recreation Area, is located next to the Fire Station.

The site is designated Commercial in the General Plan and is zoned General Commercial-Design Control (CG-DC). The project is within a Rural Center (Cool) as designated by the General Plan. There are no other special designations applicable to the site.

2.3 Project Characteristics

2.3.1 Proposed Commercial Structure

The project applicant proposes to construct a 9,100 SF. commercial retail building (Dollar General). The single-story building would have a maximum height of 33 feet. The building would be located in the southerly half of the project site, facing the intersection of Highway 49 and Northside Drive (see Figure 2-3). The project design is in the style of new traditional, Western false front architecture. The building has a central entrance, and parapet walls extending along the building façade (see Figure 2-5). The design is responsive to community input and

designed to replicate the "Boardwalk" project on the west side of SR 49 (see Figure 2-6). The project would include parking for 31 vehicles, a refuse enclosure for solid waste, landscaping, an on-site septic system, and on-site stormwater treatment.

Dollar General hours of operation are Monday thru Sunday 8am to 10pm. Typically, there would be 3 employees during a normal shift and 4-5 customers at a time during peak hours.

Project landscaping would include tree plantings in the parking lot, and a variety of shrubs and ground cover around the parking lot and building, as shown on Figure 2-7. The two mature oak trees at the northwest corner of the property would be preserved, and the area around them left in a natural state. New trees to be planted include Strawberry trees, Ponderosa Pine, and English Oak trees. New shrubs include a mix of manzanita, Coyote brush, blue fescue, juniper, pyracantha, and switch grass. The eastern end of the property would be left undisturbed except where the dedicated septic field would be located.

A monument sign would be located at the northwest corner of the project, near the corner of State Route 49 and Northside Drive. The sign would be approximately 50 SF and approximately 11 feet above ground surface (at the highest point). The design is a wood framed (or optional steel frame) sign, with channelized internally illuminated letters on a wood grain background.

Project lighting includes at least one parking lot fixture and building mounted lighting ("gooseneck" or similar downward shielding light fixtures), as shown on Figure 2-3, Site Plan.

2.3.2 Transportation/Circulation/Parking

Project Area Roadways

State Route 49 (SR 49) serves north-south traffic throughout the Sierra Nevada foothills. In and near El Dorado County, State Route 49 runs from Plymouth in Amador County through Diamond Springs, Placerville, Coloma, Pilot Hill, and Cool to Auburn in Placer County. In the vicinity of the project site, SR 49 is a 2-lane facility with no frontage improvements. The posted speed limit is 45 mph.

Northside Drive is a 2-lane (privately maintained) local street that intersects State Route 49 approximately 600 feet north of SR 193. Northside Drive provides primary access to the project site.

State Route 193 (SR 193) runs easterly from SR 49 in Cool to an intersection on SR 49 north of Placerville. In the vicinity of the project site, SR 193 is a 2-lane facility with no frontage improvements, although a separated bike path exists along the north side of the road. The posted speed limit is 55 mph.

Project Area Intersections

State Route 49 / St Florian Court intersection is a "Tee" intersection controlled by an eastbound stop sign on St Florian Court. A northbound left turn lane is present on SR 49. The St Florian Court approach is a single lane, and there are no crosswalks present.

State Route 49 / Northside Drive intersection is a "Tee" intersection controlled by a westbound stop sign on Northside Drive. A Two-Way-Left-Turn-Lane is present on SR 49. The Northside Drive approach is a single lane, and there are no crosswalks present.

State Route 49 / Commercial Driveway intersection is a "Tee" controlled by a stop sign on eastbound Commercial Driveway. A Two-Way-Left-Turn-Lane is present on SR 49. The Commercial Driveway is a private drive, and there are no crosswalks present.

State Route 49 / State Route 193 intersection is a four-way intersection controlled by an all-way stop with an overhead flasher. SR 49 has separate left turn lanes on each approach. A southbound right turn lane exists, and the northbound thru lane is wide enough to allow right turns outside of the queue of northbound traffic. The SR 193 westbound approach is wide enough to act as a combined left-thru lane and a separate right turn lane, and the eastbound leg is a single lane private drive. Crosswalks exist on the south and east side of the intersection.

USPS Driveway / Northside Drive intersection is a "Tee" controlled by a stop sign on the southbound USPS Driveway. There are no auxiliary lanes or crosswalks present.

Project Transportation/Circulation Components

Access to the project site is proposed via a single, 40-foot wide driveway on Northside Drive. The driveway would be approximately 35 feet from the USPS driveway to the west and approximately 655 feet from the Cool Boat and RV Storage across Northside Drive to the east. The project's Northside Drive frontage is currently unimproved, and other than the driveway access improvements, development of the project would not include additional improvements along the Northside Drive frontage, except for any necessary grading and paving to maintain a 24-foot street width along the property frontage.

Onsite, the project proposes to develop a parking lot with 31 parking spaces.

In terms of onsite circulation, regular truck deliveries would consist of 1-2 full size trucks visiting the store each week. The project proponents anticipate that smaller single unit trucks may visit the site each day. The project would result in trucks turning into the site and turning first right into the parking aisle that runs parallel to Northside Drive. From that point the truck would back into the aisle towards the store's rear door. After completing the delivery, the trucks would proceed to Northside Drive. This is a common Dollar General Store configuration, and the parking layout is wide enough to accommodate these movements.

The project would include a Class 2 bike land/path on the east side of SR 49 adjacent to the property frontage. This improvement would either be constructed by the applicant or subject to an in-lieu fee.

2.3.3 Utilities and Infrastructure

The project site is served by Georgetown Divide Public Utility District for water. The project would connect to the existing water service on the west side of the property adjacent to SR 49. As the site is not served by a wastewater system, an on-site septic system would be installed. The proposed JET J-1000 NSF certified septic system would be located northeast of the building, see Figure 2-3. The project incorporates Low Impact Design features including an on-site retention basin sized to accommodate stormwater flows to treat and store stormwater runoff. The project's stormwater runoff is designed to sheet flow away from the proposed building and into a retention basin located to the northwest of the parking lot. Any runoff in excess of the designed storage capacity of the retention basin would drain at a managed rate into the County's existing stormwater collection system in Northside Drive via a storm drain outlet located at the northern end of the basin.

An existing overhead electrical line owned by PG&E crosses the property from west to east. This line would be relocated to the north, in coordination with PG&E, to avoid the proposed building. PG&E would provide electrical service to the site.

New privately-maintained road improvements to bring Northside Drive into compliance with minimum pavement width requirements would be constructed on the south side of Northside Drive from the proposed driveway to the easterly property line.

2.4 Project Objectives

California Environmental Quality Act (CEQA) Guidelines 15124(b) require that the Project Description include a statement of the objectives of the project. The objectives should describe the purpose of the project and are intended to assist the lead agency in developing a reasonable range of alternatives for consideration in the EIR.

The proposed project includes the following objectives:

1. Provide locally serving commercial retail uses consistent with the Commercial General Plan land use designation.
2. Provide a high quality building design consistent with County guidance.
3. Minimize the grading of the project site and maintain natural topography to the extent feasible.
4. Provide additional property and sales tax revenue to the County.

2.5 Construction

The project is a vacant previously disturbed parcel. Planned construction would avoid the two mature oak trees at the front (north side) of the property. It is anticipated project grading would require approximately 4,800 cubic yards of excavation of on-site soils of which 4,400 cubic yards of this soil would be used for embankments on the project site. Approximately 400 cubic yards of fill material would be imported to balance the on-site earthwork, as shown on the project's grading plan on Figure 2-8. If approved, the project would start site clearing and grading in Spring/Summer 2021 and be completed by late 2021.

2.6. Uses of this EIR

El Dorado County, acting as the lead agency, will consider this EIR when considering approval of Design Review Permit DR19-0006. In addition to discretionary approval of the Design Review Permit, several non-discretionary (ministerial) approvals will be required by the County, including the issuance of grading and building permits.

The California Department of Fish and Wildlife, while not having permitting authority over the project, will act as a Trustee Agency under CEQA, for the protection of wildlife.

The California Department of Transportation (Caltrans) District 3 has been consulted on this project, but does not have permitting authority over the project. Caltrans is responsible for the operation and maintenance of the state highway system, including SR 49, which is adjacent to the project site.

2.7 References

El Dorado County 2018. Community Design Guide. Prepared November 1981, Adopted by the Board of Supervisors April 24, 2018 by Resolution 071-2018. Accessed November 4, 2020. Available online at: https://www.edcgov.us/Government/planning/Documents/Community-Design-Guide-Reformatted-Adopted-4-24-18.pdf.

El Dorado County 2019a. 2004 El Dorado County General Plan, Land Use Element. Adopted July 19, 2004. Amended December 20, 2019.

El Dorado County 2019b. Zoning Ordinance. El Dorado County Code title 130. Adopted August 14, 2018. Amended January 8, 2019

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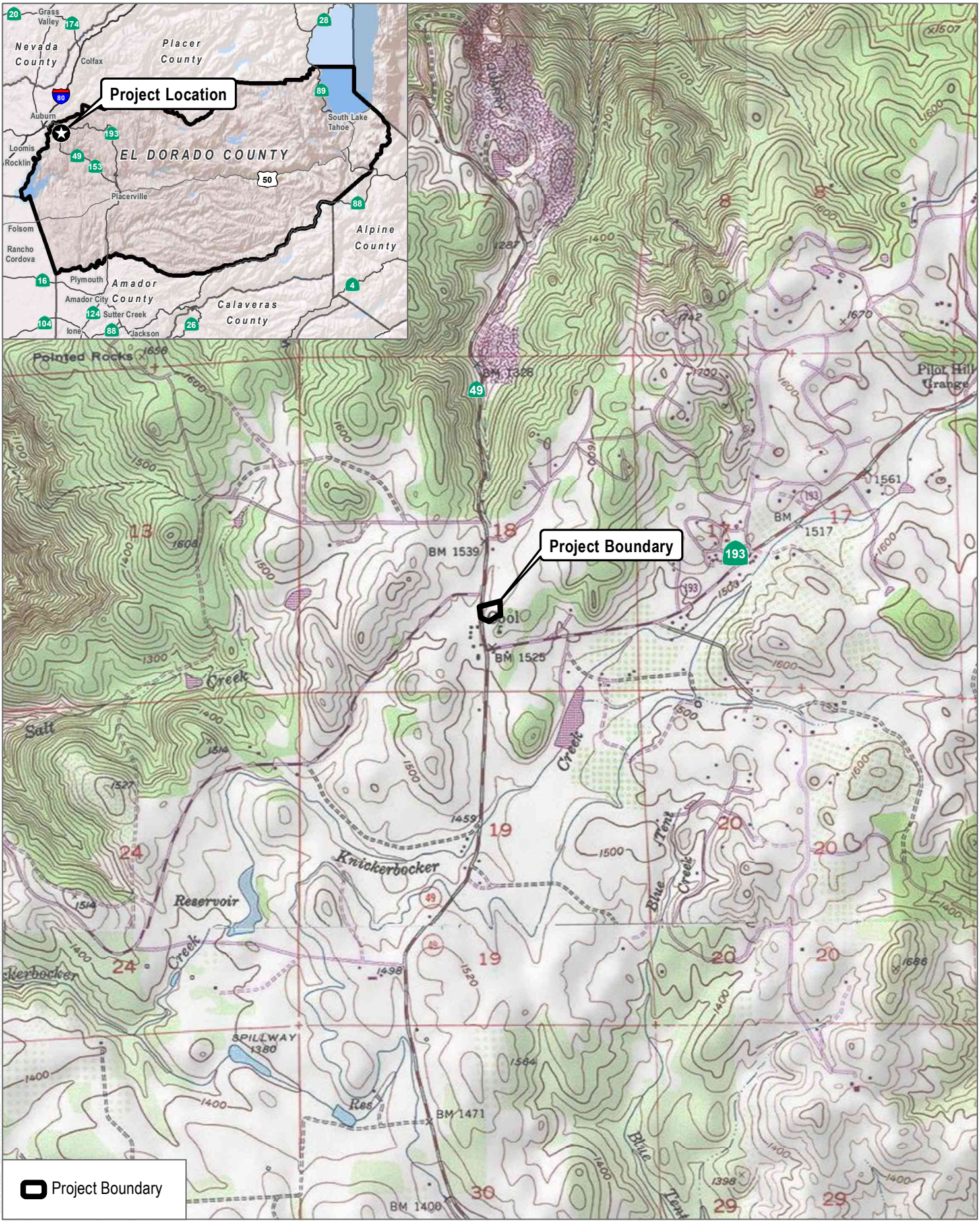

SOURCE: USGS 7.5 Minute Series Auburn Quadrangle(s)
Township 12N / Range 9E / Section 18

DUDEK

0 750 1,500 Feet

FIGURE 2-1

Project Location

County of El Dorado Dollar General Project

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SOURCE: MHM Engineers & Surveyors 2019, USDA 2016

DUDEK

0 50 100 Feet

FIGURE 2-2

Project Site

County of El Dorado Dollar General Project

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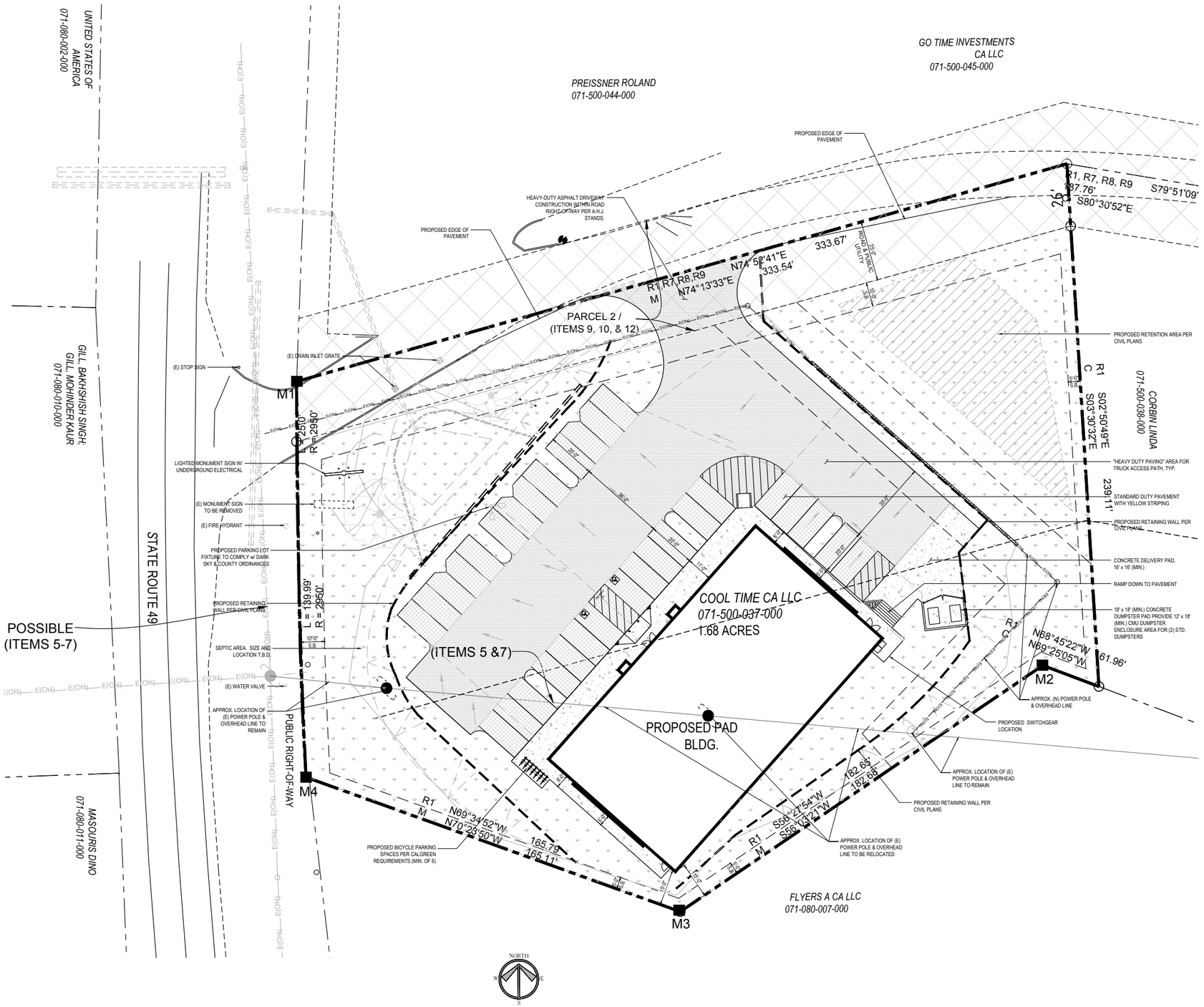

SOURCE: MPA Architects, Inc. 2019

FIGURE 2-3

Site Plan

County of El Dorado Dollar General Project

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Path: Z:\Projects\12450\MAPDOC\DOCUMENT\MXD

FIGURE 2-4

Site Photograph

County of El Dorado Dollar General Project

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SOURCE: MPA Architects, Inc. 2019

FIGURE 2-5A

Proposed Elevation

County of El Dorado Dollar General Project

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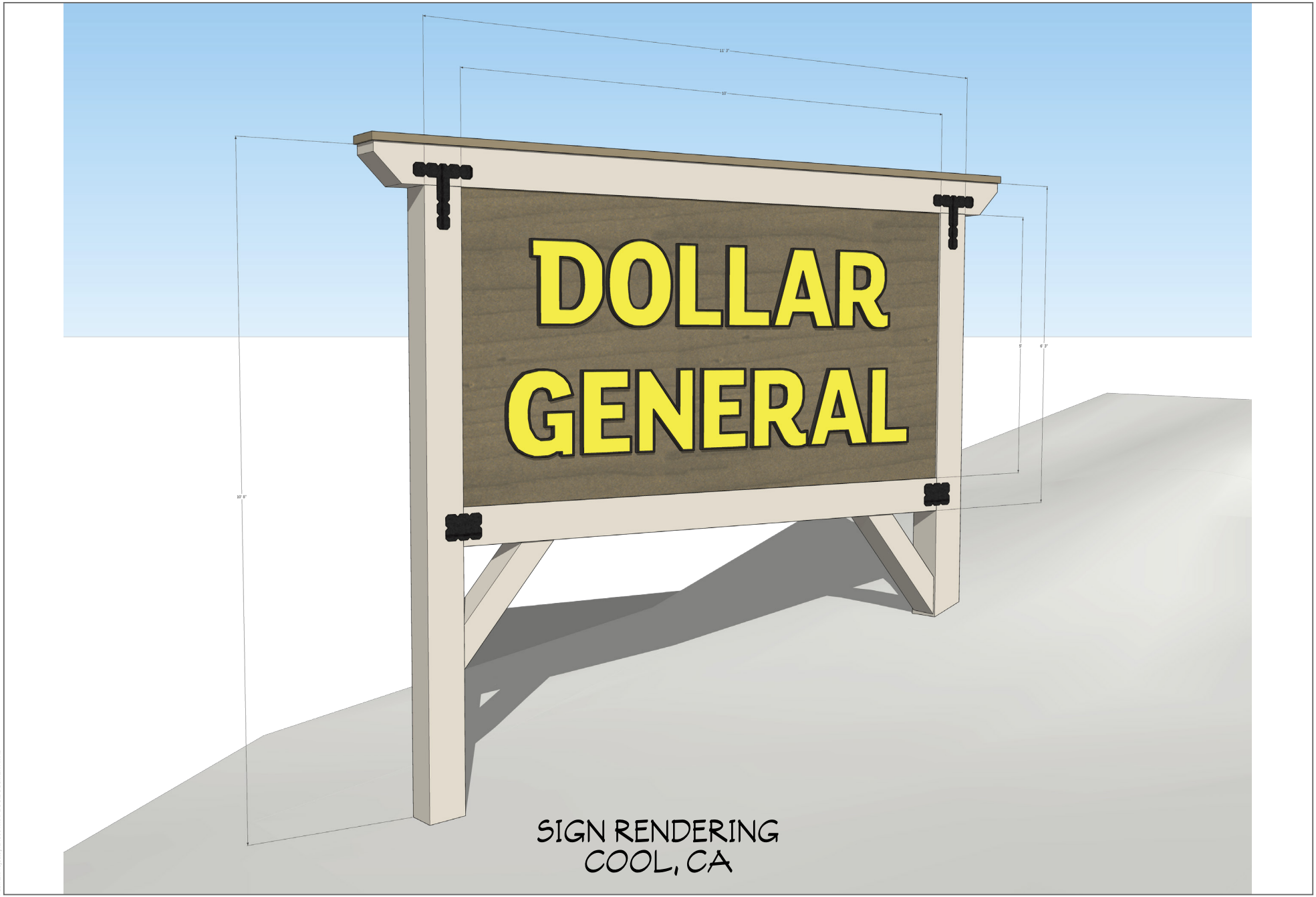

SOURCE: MPA Architects, Inc. 2019

FIGURE 2-**5B**

Proposed Monument Sign

County of El Dorado Dollar General Project

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Dollar General - Cool, CA

Batt & Board / Horizontal Siding: Barrel Stove (DE6216), Deep Crimson (DEA152), Golden Rays (DE5423), Trinity Islands (DE6249), Downpour (DE5871)
Trim: Fossil (DE6225)
Metal Panel: Light Stone (Ceco)
Roof: Owens Corning "Teak" Shingles
Metal Roof: Bronze

SOURCE: MPA Architects, Inc. 2019

FIGURE 2-5C

Proposed Color Board

County of El Dorado Dollar General Project

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FIGURE 2-6

Existing Retail View

County of El Dorado Dollar General Project

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PLANT SCHEDULE

TREES	CODE	BOTANICAL / COMMON NAME	CONT
	ARB STR	Arbutus unedo / Strawberry Tree WUCOLS REG. 2 - L	24"box
	EX OAK	Existing Tree - Oak To Remain	Exist
	PIN PON	Pinus ponderosa / Ponderosa Pine WUCOLS REG. 2 - L	24"box
	QUE FAS	Quercus robur `Fastigiata` / Pyramidal English Oak WUCOLS REG. 2 - M	15 gal
SHRUBS	**CODE**	**BOTANICAL / COMMON NAME**	**CONT**
	ARC HOW	Arctostaphylos densiflora `Howard McMinn` / Howard McMinn Manzanita WUCOLS REG. 2 - L	5 gal
	BAC HYB	Baccharis x `Starn` / Starn Coyote Brush WUCOLS REG. 2 - L	1 gal
	COT HOR	Cotoneaster horizontalis / Rock Cotoneaster WUCOLS - REG. 2 - L	5 gal
	ELA FRU	Elaeagnus pungens `Frutlandi` / Silverberry WUCOLS REG. 2 - L	5 gal
	FES OVI	Festuca ovina glauca `Elijah Blue` / Blue Fescue WUCOLS REG. 2 - L	1 gal
	GAU CHE	Gaura lindheimeri `Cherry Brandy` / Cherry Brandy Gaura WUCOLS REG. 2 - M	1 gal
	HEM ORO	Hemerocallis x `Stella de Oro` / Stella de Oro Daylily WUCOLS REG. 2 - M	1 gal
	JUN GO3	Juniperus chinensis `Gold Star` TM / Gold Star Juniper WUCOLS REG. 2 - L	5 gal
	JUN SPR	Juniperus chinensis `Sea Spray` / Sea Spray Juniper WUCOLS REG. 2 - L	5 gal
	KNI UVA	Kniphofia uvaria / Torchlily WUCOLS REG. 5 - L	5 gal
	PAN VIR	Panicum virgatum / Switch Grass WUCOLS REG. 2 - M	1 gal
	PYR LOW	Pyracantha coccinea `Lowboy` / Lowboy Pyracantha WUCOLS REG. 2 - L	5 gal
VINE/ESPALIER	**CODE**	**BOTANICAL / COMMON NAME**	**CONT**
	WIS SIN	Wisteria sinensis / Chinese Wisteria	15 gal
GROUND COVERS	**CODE**	**BOTANICAL / COMMON NAME**	**CONT** **SPACING**
	BARK	Forest Bark Mulch / Bark 2" Depth	None

IRRIGATION REGIME

FULLY AUTOMATIC, WATER EFFICIENT DRIP IRRIGATION SYSTEM WILL BE INSTALLED FOR FOR THE ENTIRE PROJECT

THE IRRIGATION CONTROLLER FEATURES WILL INCLUDE:
- ET BASED SELF ADJUSTING STATION RUN TIME
- MULTIPLE PROGRAM CAPABILITIES
- MULTIPLE REPEAT CYCLE CAPABILITIES
- FLEXIBLE CALENDAR PROGRAM

Notes:
1. The Landscape Contractor is obtain a soils test from a qualified soils testing laboratory and amend the soils as recommended by the soils recommendations PRIOR to installation of plants. The soils test results must be presented to the municipality to obtain Certificate of Occupancy.

2. All plantings and irrigation shall be maintained by the property owner and in in any case where a required planting has not survived the property owner shall be responsible for replacement with equal or better plant materials.

3. All trees as depicted on the planting plan adjacent to the parking plan shall provide 40% coverage of the parking area within 15 years as required by Land Use Development Code L-II 4.2.7.E.g.

0 20 40 60 80 feet
1" = 20'

Path: Z:\Projects\12450019\MAP\DOCDOCUMENTER

SOURCE: EGLA Landscape Architecture Inc. 2019

DUDEK

FIGURE 2-7

Preliminary Landscaping Plan

Cool Dollar General Project

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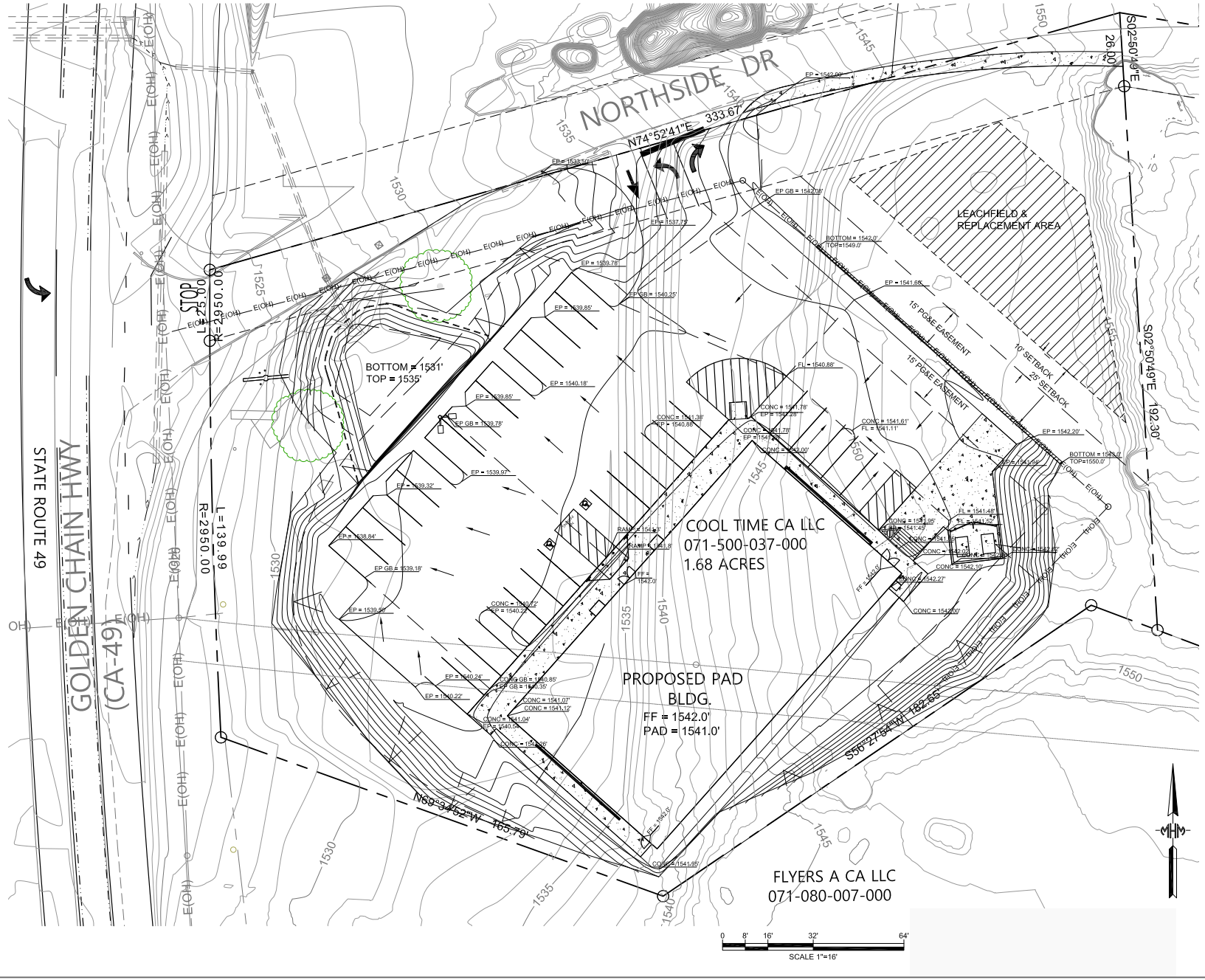

SOURCE: EGLA Landscape Architecture Inc. 2019

FIGURE 2-8
Grading Plan
Cool Dollar General Project

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3.0 Environmental Setting and Impacts

This section of the Environmental Impact Report (EIR) describes the environmental setting (baseline) and the cumulative setting. This information is provided to assist readers in understanding the manner in which the impact analyses have been conducted in this EIR.

3.01 Environmental Baseline/Existing Conditions

An EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the "baseline physical conditions" against which project-related changes can be compared. The existing conditions are described in each of the impact analysis chapters. Normally, the baseline condition is the physical condition that exists when the NOP is published or, absent an NOP, when the environmental review begins, per CEQA Guidelines Section 15125(a)(1). The CEQA Guidelines also provide for discretion on the part of the lead agency. The lead agency may use historic conditions, or even expected conditions, where necessary to provide the most accurate picture practically possible of the project's impacts. In this case, CEQA review began prior to the publication of the NOP. The County prepared a Mitigated Negative Declaration (MND) for the project that was circulated for public review and comment from April 24 to May 26, 2020.. The NOP for the Project was published on September 22, 2020. Note that several technical studies were prepared for the project prior to the NOP, as the application process and initial CEQA review for the project began in 2019. Therefore, 2019-2020 shall constitute the environmental baseline for the project. The condition and use (vacant land) of the project site has not been altered in that period. The dates of reports and field investigations used to describe the existing conditions are identified in each environmental impact chapter.

Note that travel behavior may be affected following the implementation of health restrictions related to COVID-19 in March 2020. Transportation data, such as vehicle traffic counts, may not reflect the normal conditions of the project area. Therefore, transportation data used in the EIR analysis was collected prior to COVID-19.

3.02 Impact Analysis

Impacts are evaluated in terms of changes due to the project as compared to existing conditions. For each environmental topic or resource area, the conditions anticipated as the result of project implementation are compared to baseline (current existing) conditions, to characterize the anticipated change. It should be noted that existing conditions do not constitute a significant impact for the purposes of CEQA. "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project" (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473 and California Building Industry Association v. Bay area Air Quality Management District (2015) Cal.App 4th.).

This chapter addresses the environmental setting, environmental impacts, and mitigation measures associated with the project with respect to the following environmental topics:

- Section 3.1, Aesthetics
- Section 3.2, Air Quality
- Section 3.3, Biological Resources
- Section 3.4, Cultural Resources
- Section 3.5, Energy
- Section 3.6, Geology, Soils, and Paleontology
- Section 3.7, Greenhouse Gas Emissions
- Section 3.8, Hazards and Hazardous Materials
- Section 3.9, Hydrology and Water Quality
- Section 3.10, Land Use and Planning
- Section 3.11, Public Services and Recreation
- Section 3.12 Transportation
- Section 3.13, Utilities
- Section 3.14, Wildfire
- Section 3.15 Urban Decay

Sections 3.1 through 3.15 of this Draft EIR, which present technical analysis for each of the 15 environmental topics evaluated in detail, include the following components.

Environmental Setting: This subsection describes existing environmental conditions on the project site, and in the surrounding areas 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 geographic area considered may differ between environmental topics, depending on the locations of potentially affected resources.

Regulatory Setting: This subsection presents information on the laws, regulations, plans, and policies that govern or pertain to the environmental topic being discussed.

Thresholds of Significance: The thresholds of significance, which incorporate the checklist items from Appendix G of the CEQA Guidelines are identified in this section. Note that thresholds may be quantitative or qualitative, as appropriate for the environmental topic.

Environmental Impacts and Mitigation Measures: For each environmental topic, this section includes an overview of the analytical methodology including technical studies upon which the analyses rely, and a detailed discussion of the potentially significant effects of the proposed project on the existing environment, in accordance with State CEQA Guidelines Section 15126.2. 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 detailed impact analysis for each significance thresholds. The impact analysis includes the substantial evidence upon which significance determinations are based.

For each impact determination, a less than significant impact indicates that the proposed project would not result in a substantial adverse change in the physical environment. A potentially significant or significant impact indicates a substantial adverse change in the physical environment and requires the identification of feasible mitigation that would avoid, minimize, or reduce those impacts, in accordance with State CEQA Guidelines Section 15126.4.

Where an existing law, regulation, or permit requires mandatory and prescriptive actions that provide environmental protections, with little or no discretion required for their implementation and with the effect of avoiding an impact or maintaining an impact at a less than significant level, the environmental protections afforded by the regulations are considered before determining impact significance. In contrast, 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 afford substantial discretion in their implementation, impact significance is determined prior to consideration of the environmental protections afforded by the regulatory requirements. In such circumstances, impacts may be potentially significant or significant, and those regulatory requirements may then be included as mitigation measures.

This subsection also describes whether mitigation measures would reduce project impacts to less than significant levels. Significant and unavoidable impacts are identified where applicable, in accordance with State CEQA Guidelines Section 15126.2(b).

3.03 Cumulative Impacts

CEQA requires that in addition to project impacts, an EIR must discuss cumulative impacts. Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Section 15355).

The CEQA Guidelines clarify a number of issues with respect to cumulative impacts, as follows.

- An EIR should not discuss cumulative impacts to which the project would not contribute.
- If the combined cumulative impact (impacts from other projects combined with the impact from the proposed project) is not significant, then the EIR should briefly indicate why the impact is not significant, and no further evaluation is necessary.
- If the combined cumulative impact is significant, the EIR discussion must reflect the severity of the impact and the likelihood of its occurrence.
- If the combined cumulative impact is significant, the EIR also must indicate whether the project's contribution to that significant cumulative impact will or will not be cumulatively considerable.
- An EIR may determine that the project's contribution is rendered less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact (CEQA Guidelines 15130[a]).

The CEQA Guidelines provide additional guidance with respect to how an adequate cumulative impact analysis might be completed and note that this may be based on:

- A list of past, present, and probable future projects producing related or cumulative impacts, or
- A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact (CEQA Guidelines 15130[b]).

To evaluate the cumulative impacts of the project, the analysis in this EIR uses the list method. All recently approved and pending projects in the Cool planning area were reviewed. The following two projects were identified:

1. Design Review Permit for new signage for 76 gas station (DR-R19-0003)
2. Conditional Use Permit for a proposed cell tower (S17-0019)

Project 1 is the 76 gas station at 2968 Highway 49, approximately 440 feet southwest of the project site, at the intersection of SR 49 and SR 193 (Georgetown Road). The project includes several changes to the existing signage: a resurface of the pole sign, new canopy signage and new pump displays. No new structures are proposed. The design review permit was approved on August 19, 2019. A Notice of Exemption was filed for the proposed project.

Project 2 is a 160-foot cellular tower in a 40-foot by 45-foot fenced enclosure. The tower is a monopine design (which at a distance appears to be a tree). The project site is approximately 2 miles east on Cramer Ct., south of SR 193. It was approved on June 14, 2018. A Mitigated Negative Declaration was adopted for the project. Mitigation measures were adopted to avoid potentially nesting protected bird species.

3.1 Aesthetics

The following analysis identifies potential impacts due to project-related visual changes as experienced by existing and future viewers with exposure to the project site. These effects are discussed in terms of compatibility of character and visual quality in relation to visual sensitivity of these viewers. The analysis included in this chapter evaluates physical changes that would occur, considering both natural and constructed features, and considers the proposed project in the context of planning guidance documents applicable to the project area, including the El Dorado County General Plan.

Public comments related to visual resources that were received in response to circulation of the Notice of Preparation (Appendix B) and the public scoping meeting for the proposed project included general concerns about community aesthetics and the height of the proposed building.

3.1.1 Environmental Setting

Regional Setting

The proposed project site is within the unincorporated community of Cool in the northern portion of El Dorado County, as shown in Figure 2-1. The project site fronts on the East side of Highway 49 (Golden Chain Highway) and the south side of Northside Drive, North of Highway 193 (Georgetown Road) approximately 400 feet (see Figure 2-2). The site is designated Commercial in the El Dorado County General Plan and is zoned General Commercial-Design Control (CG-DC) (El Dorado County 2004) The project is within a Rural Center (Cool) as designated by the General Plan.

Project Site

The 1.68-acre project site is currently undeveloped. The elevation on site ranges from approximately 1,525 to 1,555 feet above mean sea level (msl), for a difference of about 30± feet across the entire site. Drainage within the subject property generally flows to the southeast. Most of the vegetation on the site consists of moderate amounts of annual weeds/grasses, along with small to large trees scattered throughout the subject site. There is an existing graded pad area in the center of the site that has been incorporated into the site design (see Figure 2-4).

There is a commercial building north of the project site (across Northside Drive) that includes a restaurant, offices, and a U.S. Post Office, totaling approximately 8,800 square feet. The parcel immediate east is vacant, while further east is a cellular tower (approximately 225 feet). To the south is a vacant parcel and then Highway 193. South of Highway 193 is a retail shopping center, anchored by a Holiday Market. To the west, on the other side of Highway 49, is the central commercial area of Cool, which includes several restaurants, retail stores, a feed and ranch supply store, a gas station, auto repair, and a veterinary hospital. Fire Station No. 72 of the El Dorado County Fire Protection District is located northwest of the project site, on St. Florian Ct. The Olmstead Loop Trailhead, part of the Auburn State Recreation Area, is located next to the Fire Station.

Sensitive Receptors: Key Viewpoints

Sensitive receptors are those viewers who would be most sensitive to changes in the character of the project site. Individuals may have high sensitivity to visual changes if they have frequent or lengthy exposure to the view, are familiar with the existing condition of the site, or have a unique view of the site. Sensitive receptors are often represented by residents of adjacent parcels with views to a project site, or people viewing the site from public land.

The project site is visible from the adjacent public streets, SR 49, SR 193, Northside Drive, and Saint Florian Court, and from nearby commercial/retail areas. The site is not visible for people residing in existing homes on the Taurus Drive because views of the site are blocked by the existing development. Viewers are travelling on public roads and/or visiting other commercial businesses near the project site. Viewer sensitivity is not considered high (as compared to residents or recreational visitors).

Visual Character and Quality

The project site, as shown in Figure 2-4, is not intact, and shows a mix of natural vegetation (both native and ruderal), a graded gravel pad, and overhead utilities. Background views include the adjacent commercial development, and do not provide high vividness or contrast.

Considering these factors, the visual quality of the area may be characterized as moderate.

3.1.2 Regulatory Framework

Federal Regulations

No federal regulations are applicable to aesthetics in relation to the proposed project.

State

California Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. County roads can also become part of the Scenic Highway System. To receive official designation, the county must follow the same process required for official designation of State Scenic Highways. Several highways in El Dorado County have been designated by the California Department of Transportation (Caltrans) as scenic highways or are eligible for such designation. These include U.S. 50 from the eastern limits of the Government Center interchange (Placerville Drive/Forni Road) in Placerville to South Lake Tahoe, all of State route (SR) 89 within the county, and those portions of SR 88 along the southern border of the county.

There are no state-eligible or state-designated scenic highways within the viewshed of the proposed project. The project site is located near SR 49 and SR 193, which have not been designated or found eligible for Scenic Highway status.

Local

The County has several standards and ordinances that address issues relating to visual resources. Many of these can be found in the County Zoning Ordinance (Title 130 of the County Code). The Zoning Ordinance consists of descriptions of the zoning districts, including identification of uses allowed by right or requiring a special-use permit and specific development standards that apply in particular districts based on parcel size and land use density. These development standards often involve limits on the allowable size of structures, required setbacks, and design guidelines. Included are requirements for setbacks and allowable exceptions, the location of public

utility distribution and transmission lines, architectural supervision of structures facing a state highway, height limitations on structures and fences, outdoor lighting, and wireless communication facilities.

Visual resources are classified as 1) scenic resources or 2) scenic views. Scenic resources include specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements. Scenic views are elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. They are usually middle ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor.

A list of the county's scenic views and resources is presented in Table 5.3-1 of the El Dorado County General Plan EIR (p. 5.3-3). This list includes areas along highways where viewers can see large water bodies (e.g., Lake Tahoe and Folsom Reservoir), river canyons, rolling hills, forests, or historic structures or districts that are reminiscent of El Dorado County's heritage.

Rivers in El Dorado County include the American, Cosumnes, Rubicon, and Upper Truckee rivers. A large portion of El Dorado County is under the jurisdiction of the USFS, which under the Wild and Scenic Rivers Act may designate rivers or river sections to be Wild and Scenic Rivers. To date, no river sections in El Dorado County have been nominated for or granted Wild and Scenic River status.

El Dorado County General Plan

There are no County designated scenic vistas, scenic roads, or significant scenic resources in proximity to the project site listed in the County's General Plan Conservation and Open Space Element (El Dorado County 2017).

A list of the county's scenic views and resources is presented in Table 5.3-1 of the El Dorado County General Plan EIR (p. 5.3-3). This list includes areas along highways where viewers can see large water bodies (e.g., Lake Tahoe and Folsom Reservoir), river canyons, rolling hills, forests, or historic structures or districts that are reminiscent of El Dorado County's heritage. This table does not identify any scenic views or resources within or proximate to the project site.

The General Plan Land Use Element contains several goals and policies related to aesthetics. The following policies are applicable to the proposed project:

- **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.
- **Policy 2.5.2.1** Neighborhood commercial centers shall be oriented to serve the needs of the surrounding area, grouped as a clustered, contiguous center where possible, and should incorporate but not be limited to the following design concepts as further defined in the Zoning Ordinance:
    - A. Maximum first floor building size should be sized to be suitable for the site;
    - B. Allow for Mixed Use Developments;
    - C. No outdoor sales or automotive repair facilities;
    - D. Reduced setback with landscaping and walkways;

E. Interior parking, or the use of parking structure;

F. Bicycle access with safe and convenient bicycle storage area;

G. On-street parking to reduce the amount of on-site parking;

H. Community bulletin boards/computer kiosks;

I. Outdoor artwork, statues, etc., in prominent places; and J. Pedestrian circulation to adjacent commercial centers.

- **Policy 2.5.2.2** New commercial development should be located near by existing commercial facilities to strengthen existing shopping locations and avoid strip commercial. Policy 2.5.2.3 New community shopping centers should also contain the applicable design features of Policy 2.5.2.1.
- **Policy 2.6.1.3** Discretionary projects reviewed prior to the adoption of the Scenic Corridor Ordinance, that would be visible from any of the important public scenic viewpoints identified in Table 5.3-1 and Exhibit 5.3-1 of the El Dorado County General Plan Draft Environmental Impact Report, shall be subject to design review, and Policies 2.6.1.4, 2.6.1.5, and 2.6.1.6 shall be applicable to such projects until scenic corridors have been established.
- **Policy 2.6.1.4** Commercial designations on U.S. Highway 50 interchanges will be considered for commercial development as part of the General Plan review pursuant to Policy 2.9.1.2.
- **Policy 2.6.1.5** All development on ridgelines shall be reviewed by the County for potential impacts on visual resources. Visual impacts will be assessed and may require methods such as setbacks, screening, low-glare or directed lighting, automatic light shutoffs, and external color schemes that blend with the surroundings in order to avoid visual breaks to the skyline.
- **Policy 2.6.1.6** A Scenic Corridor (-SC) Combining Zone District shall be applied to all lands within an identified scenic corridor. Community participation shall be encouraged in identifying those corridors and developing the regulations.
- **Policy 2.7.1.1** The Sign Ordinance shall include design review for signs within the foreground and background of the designated scenic corridors commensurate with the goal of scenic corridor viewshed protection.
- **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.

- **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.

Development Standards

The County has several standards and ordinances that address issues relating to visual resources. Many of these can be found in the County Zoning Ordinance (Title 130 of the County Code). Section 130.34.020 of the Zoning Ordinance establishes outdoor lighting standards, and requires that all outdoor lighting shall be located, adequately shielded, and directed such that no direct light falls outside the property line, or into the public right-of-way.

3.1.3 Thresholds of Significance

- Cause a substantial adverse effect on a scenic vista?
- Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- Would the project substantially degrade the existing visual character or quality of the site and its surroundings?
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?
- In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality;

As evaluated in the Initial Study circulated with the Notice of Preparation for the proposed project (Appendix A), the project would have no impact with respect to the first two criteria, scenic vistas and scenic highways. Therefore, these topics are not discussed further in this EIR.

3.1.4. Project Impacts

Methodology

Following professionally accepted practice in visual analysis, visual impacts that cross a threshold of "substantial adverse effect" are defined as a consequence of three primary factors: (1) the existing scenic quality and character of an area (landscape attributes), (2) the level of viewer exposure and concern with visual change (viewer sensitivity), and (3) the level of actual change to existing visual character and quality caused by the project as seen by a given viewer group (FHWA 2015). The overall visual sensitivity of each key viewpoint, reflecting the anticipated level of viewer concern and visual exposure, is first established. This rating is then considered with the level of expected visual change experienced by key (existing) viewer groups and caused by the project to arrive at an assessment of potential impacts and their significance.

Project Impacts

Impact 3.1-1

The project would not substantially degrade the existing visual character or quality of the site and its surroundings.

As described above, the visual quality is considered moderate open space with moderate amounts of annual weeds/grasses, along with small to large trees scattered throughout the project site. The proposed project would result in the construction of a new 9,100-square foot retail store in the community of Cool. Parking facilities are also a part of the project. These elements would result in a change to the visual character of the site by increasing the number of urban structures on otherwise vacant land. However, the site is designated and zoned for commercial land uses and therefore intended to accommodate commercial development under the El Dorado County General Plan. The proposed project would be required to comply with County development standards. The proposed building is well below the allowable height and bulk standards for the site. The proposed building would be 33 feet tall, less than the 50 maximum height allowed by the zoning district. The floor area ratio (the area of all building floors divided by the parcel size) would be 0.12, less than the 0.85 allowed. The project is subject to design review to ensure it would be consistent with the surrounding commercial uses. The project design reflects

the character of the existing commercial development, as shown in Figure 2-6, which shows the commercial development west of SR 49. The project design, architectural treatments, and associated improvements substantially conform to the El Dorado County Design Guide and would not substantially detract from this commercial district. Therefore, construction of the project would not substantially degrade the character of the site or its surroundings, as the new retail store building would be consistent with existing development in the area. This impact is **less than significant**.

Impact 3.1-2

The project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

The proposed project would result in a new building and parking area, both of which may result in an increase of artificial light and glare into the existing environment. Potential sources of light and glare include external building lighting, parking lot lighting, an illuminated sign, and building windows. The introduction of new sources of light and glare may contribute to nighttime light pollution and result in impacts to nighttime views in the area. The contribution of proposed lighting on the project site would be similar to existing light sources in the project vicinity and compatible with the adjacent retail land uses. However, the project would be required to comply with County design standards and outdoor lighting associated with the project would be required to meet the County Zoning Ordinance Section 130.14.170 (Outdoor Lighting). Outdoor lighting associated with the project would be required to be shielded to avoid potential glare affecting day or nighttime views for those that live or travel through the area. Lighting onsite would be designed and installed in locations that minimize light spillover onto adjacent properties and into the sky, in keeping with the requirements of County Zoning Ordinance Section 130.14.170. In complying with County regulations, the proposed project impact would be **less than significant** regarding the creation of a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

3.1.5 Cumulative Impacts

The geographic context of cumulative impacts to visual resources is confined to those areas that would be visible in the landscape in the vicinity of the project site. Of the two projects in the cumulative setting, described in Section 3.0, only project 1, revised signage at the 76 gas station (DR-R19-0003) near the intersection of SR 49 and SR 193 is visible from the same key viewpoints. The 76 gas station signage would not increase the amount of signage or lighting, but would improve the existing signage. Furthermore, the project has received a design review permit, subject to the same standards that apply to the proposed project. The cumulative projects would not result in significant cumulative changes to visual character, quality, or glare/lighting.

3.1.6 Mitigation Measures

The project would not result in a significant aesthetic impact and no mitigation measures are required.

3.1.7 References

El Dorado County. 2004a. *El Dorado County General Plan*. Adopted July 19, 2004. Available online at: https://www.edcgov.us/Government/planning/pages/adopted_general_plan.aspx

El Dorado County. 2017. *El Dorado County General Plan Conservation and Open Space Element*. Adopted July 19, 2004, amended October 2017. Available online at: https://edcgov.us/government/planning/adoptedgeneralplan/documents/7_conservation.pdf

FHWA (Federal Highway Administration).2015. "Guidelines for the Visual Impact Assessment of Highway Projects." Revised January 2015. https://www.environment.fhwa.dot.gov/guidebook/documents/VIA_Guidelines_for_Highway_Projects.asp.

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3.2 Air Quality

This section includes a description of existing air quality conditions, a summary of applicable regulations, and analyses of potential short-term and long-term air quality impacts of the proposed project.

In response to the NOP, comments received relative to air quality pertained to the occurrence of naturally occurring asbestos on-site and to the extent of the El Dorado County Air Quality Management District (EDCAQMD) jurisdiction. These comments have been addressed herein. Pleased see Appendix B for a copy of the NOP and comments received in response to the NOP.

3.2.1 Existing Setting

Meteorological and Topographical Conditions

The proposed project is located within the Mountain Counties Air Basin (MCAB) portion of El Dorado County. As summarized in the *Guide to Air Quality Assessment – Determining Significance of Air Quality Impacts Under the California Environmental Quality Act* (Guide to Air Quality Assessment) (EDCAQMD 2002), the MCAB comprises the mountainous area of the central and northern Sierra Nevada Mountains, from Plumas County to Mariposa County. Elevations within MCAB range from several hundred feet above mean sea level (amsl) in the foothills to over 10,000 feet amsl along the Sierra Crest. The general climate of the MCAB varies considerably with elevation and proximity to the Sierra ridge. The pattern of mountains and hills causes a wide variation in rainfall, temperature, and localized winds throughout the MCAB. Temperature variations have an important influence on basin wind flow, dispersion along mountain ridges, vertical mixing, and photochemistry. The Sierra Nevada receives large amounts of precipitation from storms moving in from the Pacific in the winter, with lighter amounts from intermittent "Monsoonal" moisture flows from the south and cumulus buildup in the summer. Precipitation levels are high in the highest mountain elevations but decline rapidly toward the western portion of the basin. Winter temperatures in the mountains can be below freezing for weeks at a time, and substantial depths of snow can accumulate, but in the western foothills, winter temperatures usually dip below freezing only at night and precipitation is mixed as rain or light snow. In the summer, temperatures in the mountains are mild, with daytime peaks in the 70s to low 80s degrees Fahrenheit, but the western end of the county can routinely exceed 100 degrees Fahrenheit (EDCAQMD 2002).

From an air quality perspective, the topography and meteorology of the MCAB combine such that local conditions predominate in determining the effect of emissions in the basin. Regional airflows are affected by the mountains and hills, which direct surface air flows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. Inversion layers, where warm air overlays cooler air, frequently occur and trap pollutants close to the ground. In the winter, these conditions can lead to carbon monoxide (CO) "hotspots" along heavily traveled roads and at busy intersections. During summer's longer daylight hours, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the photochemical reaction between reactive organic compounds (ROG) and oxides of nitrogen (NOx) that results in the formation of ozone (O_3). Because of its long formation time, O_3 is a regional pollutant rather than a local hotspot problem. In the summer, the strong upwind valley air flowing into the basin from the Central Valley to the west is an effective transport medium for O_3 precursors and ozone generated in the Bay Area and the Sacramento and San Joaquin valleys. These transported pollutants predominate as the cause of O_3 in the MCAB and are largely responsible for the exceedances of the state and federal O_3 ambient air quality standards (AAQS) in the MCAB. The California Air Resources Board (CARB) has officially designated the MCAB as O_3 impacted by transport from those areas (EDCAQMD 2002).

Pollutants and Effects

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The national and California standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, nitrogen dioxide (NO_2), CO, sulfur dioxide (SO_2), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead. In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs. [1]

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly NO_x and ROG (also termed volatile organic compounds or VOCs). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric O_3) and at the Earth's surface in the troposphere (ground-level O_3). [2] The O_3 that the U.S. Environmental Protection Agency (EPA) and CARB regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

Inhalation of O_3 causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms. Exposure to O_3 can reduce the volume of air that the lungs breathe in and cause shortness of breath. O_3 in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. The occurrence and severity of health effects from O_3 exposure vary widely among individuals, even when the dose and the duration of exposure are the same. Research shows adults and children who spend more time outdoors participating in vigorous physical activities are at greater risk from the harmful health effects of O_3 exposure. While there are relatively few studies of O_3's effects on children, the available studies show that children are no more or less likely to suffer harmful effects than adults. However, there are a number of reasons why children may be more susceptible to O_3 and other pollutants. Children and teens spend nearly twice as much time outdoors and engaged in vigorous activities as adults. Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults. Also, children are less likely than adults to notice their

[1] The descriptions of the criteria air pollutants and associated health effects are based on the EPA's Criteria Air Pollutants (EPA 2018a), CARB's Glossary of Air Pollutant Terms (CARB 2019a), and CARB's "Fact Sheet: Air Pollution Sources, Effects and Control" (CARB 2009).

[2] The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward about 5 miles at the poles and about 10 miles at the equator.

own symptoms and avoid harmful exposures. Further research may be able to better distinguish between health effects in children and adults. Children, adolescents and adults who exercise or work outdoors, where O_3 concentrations are the highest, are at the greatest risk of harm from this pollutant (CARB 2019b).

Nitrogen Dioxide and Oxides of Nitrogen. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO_x, which includes NO_2 and nitric oxide, plays a major role, together with ROG, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources of NO_x are transportation and stationary fuel combustion sources (such as electric utility and industrial boilers).

A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. The strongest health evidence, and the health basis for the AAQS for NO_2, results from controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, a number of epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO_2 exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher levels of exposure compared to children with lower exposure levels. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB 2019c).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

CO is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion and reduced mental alertness, light-headedness, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB 2019d).

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest

levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

Controlled human exposure and epidemiological studies show that children and adults with asthma are more likely to experience adverse responses with SO_2 exposure, compared with the non-asthmatic population. Effects at levels near the 1-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity. Also, exposure at elevated levels of SO_2 (above 1 part per million [ppm]) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality. The elderly and people with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most likely to experience these adverse effects (CARB 2019e).

SO_2 is of concern both because it is a direct respiratory irritant and because it contributes to the formation of sulfate and sulfuric acid in particulate matter (NRC 2005). People with asthma are of particular concern, both because they have increased baseline airflow resistance and because their SO_2-induced increase in airflow resistance is greater than in healthy people, and it increases with the severity of their asthma (NRC 2005). SO_2 is thought to induce airway constriction via neural reflexes involving irritant receptors in the airways (NRC 2005).

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides, NO_x, and ROG.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. PM_{10} tends to collect in the upper portion of the respiratory system, whereas $PM_{2.5}$ is small enough to penetrate deeper into the lungs and damage lung tissue. Suspended particulates also produce haze and reduce regional visibility and damage and discolor surfaces on which they settle.

A number of adverse health effects have been associated with exposure to both $PM_{2.5}$ and PM_{10}. For $PM_{2.5}$, short-term exposures (up to 24-hour duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all of the common air pollutants, $PM_{2.5}$ is associated with the greatest proportion of adverse health effects related to air pollution, both in the United States and worldwide based on the World Health Organization's Global Burden of Disease Project.

Short-term exposures to PM_{10} have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2017).

Long-term exposure (months to years) to $PM_{2.5}$ has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children. The effects of long-term exposure to PM_{10} are less clear, although several studies suggest a link between long-term PM_{10} exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (CARB 2017).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and, in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood, because children are highly susceptible to the effects of lead. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

Sulfates. Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere and can result in respiratory impairment, as well as reduced visibility.

Vinyl Chloride. Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air can cause nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

Hydrogen Sulfide. Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

Visibility-Reducing Particles. Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for $PM_{2.5}$ described above.

Reactive Organic Gases. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as ROG. Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of ROGs result from the formation of O_3 and its related health effects. High levels of ROGs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for ROGs as a group.

Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the California State Legislature (Legislature) in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples of TACs include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2019f). DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including over 40 known carcinogenic organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2019f). CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) (17 California Code of Regulations [CCR] Section 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars; and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2019f). Those most vulnerable to non-cancer health effects are children, whose lungs are still developing, and the elderly, who often have chronic health problems.

In El Dorado County, naturally occurring asbestos is another TAC of concern. Asbestos is the common name for a group of naturally occurring fibrous silicate minerals that can separate into thin but strong and durable fibers, with

principal forms including chrysotile, crocidolite, amosite, tremolite, actinolite, and anthophyllite (OEHHA 2000). Naturally occurring asbestos is found in some areas throughout California, most commonly where ultramafic rock or serpentinite rock is present. When construction activities occur in areas with naturally occurring asbestos in the soils or rock, the asbestos fibers can become airborne and may be inhaled, which can cause chronic local inflammation and disrupt orderly cell division, both of which can facilitate the development of asbestosis (a noncancerous lung disease involving fibrotic scarring of the lungs) and cancer (OEHHA 2000).

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. 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., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Sensitive Receptors

The CEQA Guidelines (14 CCR 15000) identify sensitive receptors as facilities that house or attract children, the elderly, people with illnesses, or others that are especially sensitive to the effects of air pollutants. Hospitals, schools, and convalescent hospitals are examples of sensitive receptors. Sensitive receptors in the vicinity of the proposed project include single family residences east of the project site, the nearest of which is approximately 775 feet away.

Existing Air Quality Conditions

Under both the federal and state Clean Air Acts (described in Section 3.2.2 below), standards identifying the maximum allowable concentration of criteria air pollutants have been adopted. The EPA and CARB use air quality monitoring data to determine if each air basin or county is in compliance with the applicable standards. If the concentration of a criteria air pollutant is lower than the standard or not monitored in an area, the area is classified as attainment or unclassified (unclassified areas are treated as attainment areas). If an area exceeds the standard, the area is classified as nonattainment for that pollutant. The status of the western El Dorado County portion of the MCAB with respect to the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) are summarized in Table 3.2-1.

Table 3.2-1. Mountain Counties Air Basin Attainment Status (Western El Dorado County)

Pollutant	Designation/Classification	
	Federal Standards	*State Standards*
Ozone (O_3) – 1-hour	No federal standard	Nonattainment/severe
Ozone (O_3) – 8-hour	Nonattainment/moderate (2015 NAAQS) Nonattainment/severe (2008 NAAQS)	Nonattainment
Nitrogen dioxide (NO_2)	Unclassifiable/attainment	Attainment
Carbon monoxide (CO)	Unclassifiable/attainment	Unclassified
Sulfur dioxide (SO_2)	Unclassifiable/attainment	Attainment

Table 3.2-1. Mountain Counties Air Basin Attainment Status (Western El Dorado County)

Pollutant	Designation/Classification	
	Federal Standards	*State Standards*
Respirable particulate matter (PM_{10})	Unclassifiable/attainment	Nonattainment
Fine particulate matter ($PM_{2.5}$)	Nonattainment/moderate	Unclassified
Lead	Unclassifiable/attainment	Attainment
Sulfates (SO_4)	No federal standard	Attainment
Hydrogen sulfide (H_2S)	No federal standard	Unclassified
Vinyl chloride	No federal standard	No designation
Visibility-reducing particles	No federal standard	Unclassified

Sources: CARB 2020a; EPA 2020.
Notes: Attainment = meets the standards; Attainment (maintenance) = achieve the standards after a nonattainment designation; Nonattainment = does not meet the standards; Unclassified or unclassifiable = insufficient data to classify; Unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.

In summary, the western El Dorado County portion of the MCAB is designated as a nonattainment area for both federal and state O_3 standards, the state PM_{10} standard, and the federal $PM_{2.5}$ standard. El Dorado County is designated "unclassified" or "attainment" for all other criteria air pollutants. Notably, "unclassified" areas cannot be classified, based on available information, as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

Local air districts and CARB maintain ambient air quality monitoring stations throughout California. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Not all air pollutants are monitored at each station; thus, data are summarized from the closest representative station that monitors a specific pollutant.

The closest ambient air quality monitoring station to the project site that monitors O_3 is located at 1400 American River Trail, Cool, California 95614, approximately 0.75 miles east of the project. The closest ambient air quality monitoring station to the project site that monitors $PM_{2.5}$ is located at 11645 Atwood Road, Auburn California 95603, approximately 5.5 miles northwest of the project. The closest ambient air quality monitoring station to the project site that monitors PM_{10} and NO_2 is located at 151 North Sunrise Avenue, Roseville California 95661, approximately 17 miles southwest of the project. The data collected at these stations are considered generally representative of the air quality experienced in the project vicinity. The most recent background ambient air quality data from 2017 to 2019 and the number of days exceeding the ambient air quality standards are presented in Table 3.2-2.

Table 3.2-2. Local Ambient Air Quality Data

Averaging Time	Unit	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
				2017	*2018*	*2019*	*2017*	*2018*	*2019*
Ozone (O_3) – American River Trail, Cool Station									
Maximum 1-hour Concentration	ppm	State	0.09	0.106	0.121	0.090	4	13	0
Maximum 8-hour Concentration	ppm	State	0.070	0.085	0.108	0.078	28	26	4
		Federal	0.070	0.084	0.108	0.077	28	26	3

Table 3.2-2. Local Ambient Air Quality Data

Averaging Time	Unit	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
				2017	*2018*	*2019*	*2017*	*2018*	*2019*
Nitrogen Dioxide (NO_2) – North Sunrise Avenue, Roseville Station									
Maximum 1-hour Concentration	ppm	State	0.18	0.052	0.054	0.050	0	0	0
		Federal	0.100	0.0528	0.0544	0.0504	0	0	0
Annual Concentration	ppm	State	0.030	0.008	0.008	0.007	—	—	—
		Federal	0.053	0.007	0.007	0.006	—	—	—
Coarse Particulate Matter (PM_{10})[a] – North Sunrise Avenue, Roseville Station									
Maximum 24-hour Concentration	µg/m³	State	50	65.8	211.3	63.1	ND (5)	ND (16)	2.0 (2)
		Federal	150	66.0	202.2	61.3	0.0 (0)	2.0 (2)	0.0 (0)
Annual Concentration	µg/m³	State	20	ND	ND	15.4	—	—	—
Fine Particulate Matter ($PM_{2.5}$)[a] – Atwood Road, Auburn Station									
Maximum 24-hour Concentration	µg/m³	Federal	35	29.7	91.1	21.1	0.0 (0)	11.6 (11)	0.0 (0)
Annual Concentration	µg/m³	State	12	5.7	8.5	7.2	—	—	—
		Federal	12.0	5.6	8.5	7.1	—	—	—

Sources: CARB 2020b.

Notes: — = not available; µg/m3 = micrograms per cubic meter; ND = insufficient data available to determine the value; ppm = parts per million

Data taken from CARB iADAM (http://www.arb.ca.gov/adam) and EPA AirData (http://www.epa.gov/airdata/) represent the highest concentrations experienced over a given year.

Exceedances of federal and state standards are only shown for O_3 and particulate matter. Daily exceedances for particulate matter are estimated days because PM_{10} and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour O_3, annual PM_{10}, nor is there a state 24-hour standard for $PM_{2.5}$.

[a] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

3.2.2 Regulatory Framework

Federal Regulations

Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting NAAQS for major air pollutants; setting hazardous air pollutant (HAP) standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify National Emission Standards for Hazardous Air Pollutants (HAPs) to protect public health and welfare. HAPs include certain VOCs, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

State

Criteria Air Pollutants

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

CARB has established CAAQS, which are generally more restrictive than the NAAQS. As stated previously, an ambient air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harm to the public's health. For each pollutant, concentrations must be below the relevant CAAQS before an air basin can attain the corresponding CAAQS. Air quality is considered in attainment if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

California air districts have based their thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the air basin can accommodate without affecting the attainment date for the NAAQS or CAAQS. Since an ambient air quality standard is based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district thresholds pertain to attainment of the ambient air quality standard, this means that the thresholds established by air districts are also protective of human health. Table 3.2-3 presents the NAAQS and CAAQS.

Table 3.2-3. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary[c,d]*	*Secondary[c,e]*
O_3	1 hour	0.09 ppm (180 µg/m³)	—	Same as Primary Standard[f]
	8 hours	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 µg/m³)
	24 hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 µg/m³	150 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m³	12.0 µg/m³	15.0 µg/m³
Lead[j,k]	30-day Average	1.5 µg/m³	—	—
	Calendar Quarter	—	1.5 µg/m³ (for certain areas)[k]	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates	24 hours	25 µg/m³	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent	—	—

Source: CARB 2016.

Notes: ppm = parts per million by volume; µg/m³ = micrograms per cubic meter; mg/m³= milligrams per cubic meter.

[a] California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter—PM_{10}, $PM_{2.5}$, and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Cal. Code Regs., tit. 17, chapter 1, § 70200.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured

at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25° 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.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] On October 1, 2015, the primary and secondary NAAQS for O_3 were lowered from 0.075 ppm to 0.070 ppm.

[g] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[h] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[i] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[j] CARB has identified lead and vinyl chloride as TACs with no threshold level 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.

[k] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80-percent decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment Program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several airborne toxic control measures (ATCMs) that reduce diesel emissions, including In-Use Off-Road Diesel-

Fueled Fleets (13 CCR Section 2449 et seq.), In-Use On-Road Diesel-Fueled Vehicles (13 CCR Section 2025), and Limit Diesel-Fueled Commercial Motor Vehicle Idling (13 CCR Section 2485).

Asbestos is strictly regulated due to its serious adverse health effects, including asbestosis and lung cancer, and based on its natural widespread occurrence and its use as a building material. CARB has established two ATCMs for naturally occurring asbestos. The first asbestos ATCM applies to Surfacing Applications (e.g., restricts the content of asbestos material used in surfacing applications, such as unpaved roads and parking lots), and the second asbestos ATCM is for Construction, Grading, Quarrying and Surface Mining Operations (i.e., requires implementation mitigation measures to minimize asbestos-laden dust during these activities). Pursuant to the ATCM for Construction, Grading, Quarrying and Surface Mining Operations, an Asbestos Dust Mitigation Plan is required for any project with greater than 1 acre of surface disturbance if any portion of the area to be disturbed is mapped as having serpentine or ultramafic rock, or if any portion of the area to be disturbed has naturally occurring asbestos as determined by the owner/operator or the Air Pollution Control Officer. The Asbestos Dust Mitigation Plan, which must include dust mitigation practices that are sufficient to ensure that no equipment or operation emits dust that is visible crossing the property line, would be required to be submitted to and approved by the local air district before any clearing, grading, or construction begins.

California Health and Safety Code Section 41700

Section 41700 of the Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property (Health and Safety Code Section 41700). This section also applies to sources of objectionable odors.

Local Regulations

El Dorado County Air Quality Management District

The EDCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the MCAB, where the proposed project is located. The MCAB portion of El Dorado County lies within the area designated by the EPA as the Sacramento Federal Ozone Nonattainment Area (SFONA), comprised of Sacramento and Yolo counties, and parts of El Dorado, Solano, Placer, and Sutter counties.

The clean air strategy of the EDCAQMD includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the Clean Air Act and California Clean Air Act.

The Sacramento region is classified as a severe nonattainment area for the 2008 NAAQS. The EDCAQMD along with the other air districts which comprise the SFONA, developed the *Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Ozone Attainment Plan) to demonstrate attainment of the 2008 8-hour NAAQS by an attainment year of 2024 (EDCAQMD *et al.* 2017). This plan was approved by EDCAQMD and the other air districts that comprise the SFONA on August 24, 2017. The Ozone Attainment Plan was adopted by CARB on November 16, 2017, which was then forwarded to EPA.

The EDCAQMD has adopted rules and regulations as a means of implementing the air quality plans for El Dorado County and has also prepared the Guide to Air Quality Assessment, which provides quantitative emission thresholds and established protocols for the analysis of air quality impacts from project and plans. The Guide to Air Quality Assessment outlines quantitative and qualitative significance criteria, methodologies for the estimation of construction and operational emissions and mitigation measures to reduce significant impacts (EDCAQMD 2002).

The EDCAQMD rules applicable to the proposed project include the following:

Rule 205 – Nuisance. This rule prohibits the discharge from any source such as quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons, or to the public, or which endanger the comfort, repose, health or safety of any such persons, or the public, or which cause to have a natural tendency to cause injury or damage to business or property.

Rule 215 – Architectural Coatings. This rule requires manufacturers, distributors, and users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of use of these coatings by placing limits on the VOC content of various coating categories.

Rule 223 – Fugitive Dust. This rule governs the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. It applies to any construction or construction related activities including but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads.

Rule 223-1 – Fugitive Dust – Construction. This rule requires a Fugitive Dust Control Plan be submitted to the Air Pollution Control Officer prior to the start of any construction activity for which a grading permit was issued by El Dorado County.

Rule 223-2 – Fugitive Dust – Asbestos Hazard Mitigation. This rule reduces the amount of asbestos particulate matter that may be released as a result from construction related activities through the use of required actions or mitigation.

Rule 224 – Cutback and Emulsified Asphalt Paving Materials. This rule governs the use of asphalt and limits the VOC content in asphalt.

El Dorado County General Plan

The following are applicable goals and policies from the Public Health, Safety, and Noise Element of the General Plan (County of El Dorado 2019), which was updated in August 2019. The most recent goals and policies are listed below.

- **Goal 6.3 Geological and Seismic Hazards.** Minimize the threat to life and property from seismic and geological hazards.
  - **Policy 6.3.1.1.** The County shall require that all discretionary projects and all projects requiring a grading permit, or a building permit that would result in earth disturbance, that are located in areas likely to contain naturally occurring asbestos (based on mapping developed by the California Department of Conservation [DOC]) have a California-registered geologist knowledgeable about asbestos-containing formations inspect the project area for the presence of asbestos using appropriate test methods. The County shall amend the Erosion and Sediment Control Ordinance to include a section that addresses the reduction of thresholds to an appropriate level for grading permits in areas likely to

contain naturally occurring asbestos (based on mapping developed by the DOC). The Department of Transportation and the EDCAQMD 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.

- **Goal 6.7 Air Quality Maintenance.** Strive to achieve and maintain ambient air quality standards established by the EPA and CARB and minimize public exposure to toxic or hazardous air pollutants and air pollutants that create unpleasant odors.
  - **Policy 6.7.7.1** The County shall consider air quality when planning the land uses and transportation systems to accommodate expected growth, and shall use the recommendations in the most recent version of the El Dorado County Air Quality Management (AQMD) Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts Under the California Environmental Quality Act, to analyze potential air quality impacts (e.g., short-term construction, long-term operations, toxic and odor-related emissions) and to require feasible mitigation requirements for such impacts. The County shall also consider any new information or technology that becomes available prior to periodic updates of the Guide. The County shall encourage actions (e.g., use of light-colored roofs and retention of trees) to help mitigate heat island effects on air quality.

3.2.3 Thresholds of Significance

The standards of significance used to evaluate the impacts of the proposed project related to air quality are based on Appendix G of the CEQA Guidelines, as listed below. A significant impact would occur if the proposed project would:

- Would the project conflict with or obstruct implementation of the applicable air quality plan?
- Would the project 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?
- Would the project expose sensitive receptors to substantial pollutant concentrations?
- Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

In addition, Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether the proposed project would have a significant impact on air quality. The EDCAQMD Guide to Air Quality Assessment provides quantitative emission thresholds and established protocols for the analysis of air quality impacts from projects and plans. Project related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 3.2-4 are exceeded.

A project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3 (see Table 3.2-3), which is a nonattainment pollutant, if the project's construction or operational emissions would exceed the EDCAQMD ROG or NO_x thresholds shown in Table 3.2-4. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "O_3 significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly (see the previous discussion of O_3 and its sources), and the effects of an individual project's emissions of O_3 precursors (ROG and NO_x) on O_3 levels in ambient air cannot be reliably and meaningfully determined through air quality models or other quantitative methods. According to the EDCAQMD, if ROG and NO_x are less than significant during construction, then exhaust CO and PM_{10} would also be

less than significant. During operation, if ROG and NO_x are less than significant, then exhaust CO, NO_2, SO_2, and PM_{10} would also be less than significant.

Table 3.2-4. EDCAQMD Air Quality Significance Thresholds

Pollutant	Construction	Operation
Criteria Pollutants Mass Daily Thresholds		
ROG	82 lbs/day	82 lbs/day
NO_x	82 lbs/day	82 lbs/day

Source: EDCAQMD 2002.
Notes:
Construction Screening: If ROG and NO_x are less than significant during construction, then exhaust CO and PM_{10} would also be less than significant.
Operational Screening: If ROG and NO_x are less than significant during operation, then exhaust CO, NO_2, SO_2, and PM_{10} would also be less than significant.
EDCAQMD = El Dorado County Air Quality Management District; lb/day = pounds per day; ROG = Reactive Organic Gases; NO_2 = nitrogen oxides; NO_2 = nitrogen dioxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter.

For the other criteria pollutants, including CO, PM_{10}, SO_2, NO_2, sulfates, lead, and hydrogen sulfide (H_2S), a project is considered to have a significant impact on air quality if it will cause or contribute significantly to a violation of the applicable national or state ambient air quality standard(s) (see Table 3.2-3 for a list of the federal and state standards). The determination of whether emissions of these pollutants from a project would cause or contribute to a violation of an applicable air quality standard will be done in accordance with the methods laid out in the Guide to Air Quality Assessment.

For TACs, the following two alternative significance criteria from the EDCAQMD are used. Exceeding either of these criteria will lead to a conclusion that a project has a significant impact with respect to TACs:

1. The lifetime probability of contracting cancer is greater than 1 in 1 million (10 in 1 million if T-BACT is applied); or
2. The ground-level concentration of non-carcinogenic toxic air contaminants would result in a Hazard Index of greater than 1.

3.2.4 Project Impacts

Approach and Methodology

Emissions from construction and operation of the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2.[3]

[3] CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with the construction and operational activities from a variety of land use projects, such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the proposed project land use type and size and construction schedule were based on information provided by the project applicant, or default model assumptions if project specifics were unavailable.

Construction

Construction emissions were calculated for the estimated worst-case day over the construction period. ("Worst-case day" means the day with the greatest emissions.) Default CalEEMod values were used where detailed project information was not available.

It is anticipated that construction of the proposed project would take approximately seven months. Construction would begin in Spring/Summer of 2021.[4]

The construction equipment mix and estimated hours of operation per day for the criteria air pollutant emissions modeling are based on default assumptions included in CalEEMod (see Table 3.2-5). For this analysis, it was assumed that heavy construction equipment would be used 5 days per week (22 days per month) during project construction.

Table 3.2-5 also presents estimated worker trips, vendor (delivery) truck trips, and haul truck trips anticipated for each construction phase. During the grading phase, approximately 4,800 cubic yards of material would be excavated, 4,400 cubic yards would be balanced on-site, and 400 cubic yards would be exported off site, based on information provided by the applicant. Assuming a haul truck capacity of 16 cubic yards per truck, it is anticipated that 25 round-trip haul truck trips (50 one-way trips) would be required to export excavated material off site. Vendor trucks transporting concrete, steel, and other building materials were assumed during building construction. Table 3.2-5 presents the construction scenario assumptions used to estimate project-generated construction emissions.

Table 3.2-5. Construction Scenario Assumptions

	One-Way Vehicle Trips			Equipment		
Construction Phase	*Average Daily Worker Trips*	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Site Preparation	8	0	0	Graders	1	8
				Rubber Tired Dozers	1	7
				Tractors/Loaders/ Backhoes	1	8
Grading	8	0	50	Graders	1	6
				Rubber Tired Dozers	1	6
				Tractors/Loaders/ Backhoes	2	7
Building Construction	8	4	0	Cranes	1	6
				Forklifts	1	6
				Generator Sets	1	8
				Tractors/Loaders/ Backhoes	1	6
				Welders	3	8
Paving	13	0	0	Cement and Mortar Mixers	1	6

[4] The analysis assumes a construction start date of September 2020, which represents the earliest date construction would have initiated at the time of analysis. Although this start date has passed, assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions because equipment and vehicle emission factors for later years are reduced over time due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 3.2-5. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
				Pavers	1	6
				Paving Equipment	1	8
				Rollers	1	7
				Tractors/Loaders/ Backhoes	1	8
Architectural Coatings	2	0	0	Air Compressors	1	6

Notes: See Appendix B for details.

Operation

Emissions from the operational phase of the project were estimated using CalEEMod Version 2016.3.2. Year 2022 was assumed as the first full year of operations.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, which include emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2017). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of residential and nonresidential buildings and on the default factor of pounds of VOC per building square foot per day. For the proposed parking lot, CalEEMod estimates VOC emissions associated with use of parking surface degreasers based on a square footage of parking surface area and pounds of VOC per square foot per day.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of nonresidential surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the nonresidential surface area for painting equals 2.0 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating. For asphalt surfaces, the architectural coating area is assumed to be 6% of the total square footage, consistent with the supporting CalEEMod studies provided as an appendix to the CalEEMod User's Guide (CAPCOA 2017).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers. The emissions associated with landscape equipment use are estimated based on CalEEMod default values for emission factors.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gas emissions in CalEEMod, since criteria pollutant emissions would occur at the site of power plants, which are not on the project site. However, natural gas combustion would occur at the project site itself, in association with equipment that uses natural gas. As such, its use on the project site is estimated and modeled in CalEEMod. For nonresidential buildings, CalEEMod energy intensity values (natural gas usage per square foot per year) assumptions were based on the California Commercial End-Use Survey database. CalEEMod default values for energy consumption assume compliance with the 2016 Title 24 Building Energy Efficiency Standards, which were assumed for this analysis. This is conservative since the project would be required to comply with the more stringent 2019 Title 24 Building Energy Efficiency Standards that became effective January 1, 2020.

Mobile Sources

Mobile sources for the project would primarily be motor vehicles (automobiles and light-duty trucks) traveling to and from the project site. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. The default vehicle mix provided in CalEEMod 2016.3.2, which is based on CARB's Mobile Source Emissions Inventory model (EMFAC) version 2014, was applied to the project. Emission factors representing year 2022 were used to estimate emissions associated with the first full year of operations. Trip generation rates and pass-by assumptions for the project are based on the traffic data provided in the *Traffic Impact Analysis* (KD Anderson 2019) prepared for the proposed project.

Project Impacts

Impact 3.2-1

The project would not conflict with or obstruct implementation of the applicable air quality plan.

As mentioned previously, the MCAB is currently non-attainment for the O_3 CAAQS and NAAQS, as well as the CAAQS for PM_{10}. While an air quality plan exists for O_3, none currently exists for particulate matter. The Ozone Attainment Plan was developed for application within the Sacramento region, including the MCAB portion of El Dorado County (EDCAQMD *et al*. 2017). If a project can demonstrate consistency with the Ozone Attainment Plan for ROG and NO_x emissions, it would be determined that it would not have a significant cumulative impact with respect to O_3.

Projects within the MCAB portion of the County must demonstrate Ozone Attainment Plan consistency with the following four indicators:

1. The project does not require a change in the existing land use designation (e.g., a general plan amendment or rezone), or projected emissions of ROG and NO_x from a project are equal to or less than the emissions anticipated for the site if development under the existing land use designation;
2. The project does not exceed the "project alone" significance criteria;
3. The lead agency for the project requires the project to implement any applicable emission reduction measures contained in and/or derived from the Ozone Attainment Plan; and
4. The project complies with all applicable district rules and regulations.

The first way to assess project compliance with the Ozone Attainment Plan is to ensure that the population density and land use are consistent with the growth assumptions used in the plans for the MCAB. The proposed project includes no uses that would generate a long-term increase in population and does not require a change in land use designations applied to the project site. Therefore, the proposed project would be consistent with the regional growth forecasts and would not conflict with or exceed the assumptions of the Ozone Attainment Plan.

The second criterion assesses a project's contribution to existing air quality violations. As discussed in Impact 3.2-2 below, it was determined that the project would not contribute to an air quality violation because construction and operational emissions would not exceed the EDCAQMD thresholds of significance for ROG or NO_x emissions.

The third criterion is compliance with control measures in the Ozone Attainment Plan. Most of the control strategies in the Ozone Attainment Plan include measures in the categories of transportation and stationary sources. The non-regulatory control measures include; on-road and off-road mobile incentive programs, and an emerging/voluntary urban forest development program. These are followed by the regulatory control measures, which include; indirect source rules and a variety of stationary and area-wide source control measures. CARB's strategy for reducing mobile source emissions includes the following: new engine standards, reducing emissions from in-use fleet, requiring the use of cleaner fuels, supporting the use of alternative fuels, and pursuing long-term advanced technology measures. The project would result in no conflict with CARB's strategy for controlling mobile source emissions. In addition, the project would be required to adhere to EDCAQMD Rule 215 – Architectural Coatings, which restricts the VOC content of coatings.

The final criterion is compliance with the EDCAQMD rules and regulations. The EDCAQMD has adopted rules designed specifically to address a variety of air quality impacts through measures that construction and operational related air quality emissions. The project would be required by law to comply with all applicable rules and regulations.

In summary, the project would not conflict with the growth assumptions for the region, does not exceed the EDCAQMD significance thresholds, would be consistent with all control measures of the Ozone Attainment Plan, and would comply with applicable EDCAQMD rules. Based on these considerations, the project would not conflict with or obstruct implementation of an applicable air quality plan and would therefore result in **less than significant** impact.

Impact 3.2-2

The project would not 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.

The following discussion evaluates the potential for the proposed project's construction and operational emissions to result in a considerable contribution to the region's cumulative air quality impact.

Construction

Construction of the proposed project would result in the addition of pollutants to the local air shed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be estimated, with a corresponding uncertainty in precise ambient air quality impacts. Fugitive dust (PM_{10} and $PM_{2.5}$) emissions would primarily result from earthwork activities. NO_x and CO emissions would primarily result from the use of construction equipment and motor vehicles.

Construction of the project is anticipated to occur over a 4.5-month (135 day) period. For the purpose of this analysis, construction activities were assumed to begin in September 2020 and would be completed in March 2021. Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by the applicant and CalEEMod generated default values. Complete detailed construction assumptions are included in Appendix B. Table 3.2-6 presents the estimated maximum unmitigated daily construction emissions generated during construction of the project.

Table 3.2-6. Maximum Daily Unmitigated Construction Emissions

Year	ROG	NO_x
	Pounds per Day	
2020	2.11	18.39
2021	36.82	14.11
Maximum Daily Emissions	**36.82**	**18.39**
EDCAQMD Threshold	*82*	*82*
Threshold exceeded?	**No**	**No**

Source: See Appendix B for detailed results.
Notes: EDCAQMD = El Dorado County Air Quality Management District; ROG = reactive organic gases; NO_x = oxides of nitrogen
The values shown are the maximum summer or winter daily emissions results from CalEEMod.

As shown in Table 3.2-6, ROG and NO_x emissions would not exceed the EDCAQMD significance thresholds; therefore the project would have a less than significant impact. According to the EDCAQMD, if ROG and NO_x are less than significant during construction, then exhaust emissions of other pollutants from the operation of equipment and other vehicles would also be considered less than significant. Further, existing regulations implemented at issuance of building and grading permits would ensure that any construction related fugitive dust emissions would be reduced to acceptable levels. Therefore, the project would result in a **less than significant** impact in regards to criteria air pollutant emissions generated during construction.

Operation

Operation of the proposed project would generate criteria pollutant emissions from mobile sources (vehicular traffic), area sources (consumer products, natural gas hearths, architectural coatings, and landscaping equipment), energy sources (natural gas consumption). CalEEMod was used to estimate daily emissions from project-related operational sources. Table 3.2-7 summarizes the operational emissions criteria pollutants that would be generated from the project. Operational emissions were then compared to the EDCAQMD operational thresholds.

Table 3.2-7. Maximum Daily Unmitigated Operational Emissions

Year	ROG	NO_x
	Pounds per Day	
Area	0.26	<0.01
Energy	<0.01	0.02
Mobile	1.39	3.59
Total	**1.65**	**3.61**
EDCAQMD Threshold	*82*	*82*
Threshold exceeded?	**No**	**No**

Source: See Appendix B for detailed results.

Notes: EDCAQMD = El Dorado County Air Quality Management District; ROG = reactive organic gases; NO_x = oxides of nitrogen
The values shown are the maximum summer or winter daily emissions results from CalEEMod.

As indicated in Table 3.2-7, operational emissions of ROG and NO_x would not exceed the EDCAQMD significance thresholds resulting from development of the project. Furthermore, if ROG and NO_x are less than significant during construction, then exhaust emissions of other pollutants would also be considered less than significant. Therefore, the project would result in a **less than significant** impact in regards to criteria air pollutant emissions generated during operations.

Impact 3.2-3

The project may expose sensitive receptors to substantial pollutant concentrations during construction.

The discussion below reviews the significance of emissions within the context of potential impacts to sensitive receptors. Sensitive receptors in the vicinity of the project include single family residences east of the project site, the nearest of which is approximately 775 feet away.

Toxic Air Contaminants

TACs are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The EDCAQMD recommends an incremental cancer risk threshold of 10 in 1 million (with implementation of best available control technology for toxics). "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard California Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. EDCAQMD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) non-carcinogenic effects. The TACs that would potentially be emitted during construction activities associated with development of the proposed project would be diesel particulate matter (DPM) and naturally occurring asbestos.

Diesel particulate matter emissions would be emitted from heavy equipment operations and heavy-duty trucks. Heavy-duty construction equipment is subject to a CARB Airborne Toxics Control Measure for diesel construction equipment to reduce diesel particulate emissions. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period and duration of activities associated with the proposed project. The 4.5-month duration of the proposed construction activities would only constitute about 1.25% of the total 30-year exposure period. The active construction period for the proposed project would be approximately 135 days, after which construction-related TAC emissions would cease. EDCAQMD considers implementation of "project alone" mitigation requirements, and compliance with all applicable emission limits and mitigation measures required by the EPA, CARB, EDCAQMD rules and regulations, and local ordinances sufficient for a finding of less than significant related to TACs. As discussed previously, the project would result in a less than significant impact pertaining to exhaust PM_{10} emissions, which is a surrogate for DPM. Due to the relatively short period of exposure, the substantial distance to the nearest sensitive receptor, and minimal particulate emissions generated, TACs emitted during construction would not be expected to result in concentrations causing significant health risks, which would be a **less-than-significant** impact.

Naturally occurring asbestos is also a TAC that could be generated during earthmoving activities in areas of El Dorado County. Although the proposed project site has not been identified as an area containing naturally occurring asbestos (Bole and Associates 2019), current County records indicate the proposed project property parcel is located within the

Naturally Occurring Asbestos Review Area. As such, potential impacts to naturally occurring asbestos would be considered **potentially significant** before mitigation.

Operation of the project would not result in any non-permitted direct emissions (e.g., those from a point source such as diesel generators) or result in substantial diesel vehicle trips (i.e., delivery trucks). According to the *Traffic Impact Analysis* (KD Anderson 2019), the project would result in approximately 1 to 2 full size delivery trucks per week, with smaller single unit trucks potentially visiting daily. Based on the above considerations, the project would not result in exposure of sensitive receptors in the vicinity of the project site to substantial TAC concentrations due to operations. This impact would be **less than significant**.

Health Effects of Criteria Air Pollutants

ROG and NO_x are precursors to O_3, for which the MCAB is designated as nonattainment with respect to the NAAQS and California Ambient Air Quality Standards (CAAQS). Thus, existing O_3 levels in the MCAB are at unhealthy levels during certain periods. The health effects associated with O_3 are generally associated with reduced lung function. Because the project involves construction or operational activities that would not result in ROG or NO_x emissions that would exceed the EDCAQMD thresholds, the project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO, PM_{10}, and other pollutants are evaluated for significance by comparison against the NAAQS and CAAQS. A project would be considered significant if it is projected to cause a violation of any NAAQS and/or CAAQS. The MCAB portion of El Dorado County is classified as attainment (or unclassified) for all NAAQS and CAAQS for CO, $PM_{2.5}$, NO_2, SO_2, sulfates, lead, and H_2S, and is classified as nonattainment for the state 24-hour PM_{10} standard.

Emissions of CO, PM_{10}, and other pollutants generated from operation of the project would be considered significant if:

1. The project's contribution by itself would cause a violation of the AAQS, or
2. The project's contribution plus the background level would result in a violation of the AAQS and either
    a. A sensitive receptor is located within a quarter-mile of the project, or
    b. The project's contribution exceeds 5% of the AAQS

The EDCAQMD considers lead, sulfates, and H_2S to be less than significant except from industrial sources that result in these pollutants being directly emitted. The project would not include these sources and thus any potential emissions of lead, sulfates, and H_2S would be less than significant.

The EDCAQMD considers projects that fall below the significance levels for ROG and NO_x emissions to also fall below significance thresholds for the other criteria air pollutants, including CO, NO_2, PM_{10}, and SO_2. As discussed in Impact 3.2-2 above, ROG and NO_x emission would be below the thresholds of significance during project construction and operations. Therefore, project emissions of other criteria air pollutants would also be less than significant.

Visibility impacts are controlled through state and federal regulatory programs that govern vehicle emissions and through mitigation required for O_3 precursors and particulate matter. Due to these regulatory controls, EDCAQMD assumes that visibility impacts from projects in the MCAB portion of the County are less than significant.

In summary, the proposed project would not make a potentially significant contribution to regional concentrations of nonattainment pollutants, and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Therefore, impacts would be **less than significant**.

Impact 3.2-4

The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Other emissions associated with the project are anticipated to be limited to odors, which is assessed herein. The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receiving location each contributes to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress, and generate citizen complaints.

Common sources of odors include wastewater treatment plants, landfills, transfer stations, composting facilities, refineries, chemical plants, and food processing plants (EDCAQMD 2002). The proposed project would include development of a retail store, which is not anticipated to generate new odors or increase emissions of odors. During project construction, exhaust from equipment may produce discernible odors typical of most construction sites. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from the tailpipes of construction equipment. However, such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Accordingly, impacts associated with odors would be **less than significant**.

3.2.5 Cumulative Impacts

Impact 3.2-2 considers the cumulative effect of project air emissions, based on the attainment status of the air basin. Impact 3.2-2 finds cumulative impacts to be **less than significant**.

3.2.6 Mitigation Measures

MM-AQ-1: **Asbestos Assessment and Minimization.** The proposed project applicant (or their successor) shall provide a geologic evaluation of the property to determine that no serpentine, ultramafic rock, or asbestos is likely to be found in the area to be disturbed. This geologic evaluation shall be prepared by a Professional Geologist and submitted to the Air Pollution Control Officer (APCO) for consideration prior to issuance of building permits. If an exemption is not granted by the APCO, the proposed project sponsor shall adhere to all applicable regulations and control measures for fugitive dust emissions and asbestos hazards mitigation as required by the El Dorado County Air Quality Management District (EDCAQMD) Rule 223 (Fugitive Dust) and Rule 223-2 (Fugitive Dust – Asbestos Hazard Mitigation).

Level of Significance After Mitigation

With implementation of MM-AQ-1, any potential asbestos in fugitive dust generated by the proposed project would be minimized to the extent feasible and Impact 3.2-3 would **be less than significant**.

3.2.7 References

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3.3 Biological Resources

This section evaluates the potential effects on biological resources associated with development and operation of the Cool Dollar General (project). This section describes the biological resources present within the project site; identifies special-status plant and wildlife species that are known to occur or potentially occur within the project site; outlines applicable federal, State, regional and local regulations adopted for the protection of plant and wildlife species; evaluates potential project-specific impacts on biological resources; identifies mitigation measures to minimize these impacts; and evaluates the degree to which the project could contribute to cumulative impacts.

No comments were received in response to the Notice of Preparation (NOP) that addressed biological resources issues or concerns. The NOP and comments received are provided in Appendix B to this EIR.

Information used to prepare this section was based on a review of the Biological Assessment and Wetland Determination report prepared by Bole & Associates (revised February 18, 2020), Cool Dollar General Oak Resources Technical Report prepared by Dudek (February 25, 2020), and a review of the County's General Plan. Copies of these reports are included in Appendix D and Appendix E, respectively, to this draft environmental impact report (EIR).

3.3.1 Environmental Setting

Regional and Local Setting

The 1.68-acre project site (APN 071-500-037) is located in the foothills of the Sierra Nevada Mountain range along the east side of State Route 49 (SR 49), south of the intersection with Northside Drive in the community of Cool, El Dorado County, California, as shown in Figure 2-1 in Chapter 2 Project Description. The project site is undeveloped but located within a developed area with commercial development to the north and west. The parcel on eastside of the project site is vacant.

The topography of the project site is generally flat with elevations ranging from 1,525 feet in the western portion to 1,555 feet above mean sea level in the eastern portion for a difference of approximately 30 feet across the site. The project site is located on the U.S. Geological survey (USGS) Auburn 7.5-minute topographic quadrangle Section 18, Township 12 North, Range 9 East. Portions of the project site have been graded and disturbed and is generally characterized as disturbed non-native grassland featuring several oak and pine trees. There are 11 native oak and pine trees present on the site primarily along the eastern boundary and in the northwest corner.

The project site is not within nor designated as an Important Biological Corridor (-IBC) overlay. The IBC overlay applies to lands identified as having high wildlife habitat values due to extent, habitat function, connectivity, and other factors.

Existing Vegetation Communities/Land Covers

Non-Native Annual Grasslands

The majority of the project site contains annual, non-native grassland. Due to the phenology of these grasses they tend to dominate the landscape. Grassland species includes soft brome (*Bromus hordeaceus*), barley, ryegrass,

and barbed goatgrass (*Aegilops triuncialis*). Non-native forbs found at the site included yellow starthistle (*Centaurea solstitialis*), filaree (*Erodium* spp.), and vetch (*Vicia* spp.).

Wetlands and Waters of the U.S.

A biologist from Bole & Associates conducted a field survey of the project site during May and June 2019 to identify if any wetlands or other waters of the U.S. were present on the site. The survey adhered to protocols and methodologies for identifying wetlands included in the *1987 Corps of Engineers Wetlands Delineation Manual* and followed the Routine On-Site Determination method. Based on their survey no federally-protected jurisdictional wetland habitats were identified within the project site (see Appendix D).

Plants and Wildlife

A Biological Assessment and Wetland Determination was prepared for the project site by Bole & Associates in February 2020 (Appendix D). Habitat on site was evaluated for the potential to support special-status plant and animal species. An query of the following literature databases was conducted including the United States Fish and Wildlife Service's (USFWS) *Federal Endangered and Threatened Species List* (IPaC, NEPA) for the Auburn7 ½ minute quadrangle for plants and wildlife that have federal special-species status. The IPaC data base lists revealed several special status wildlife species with a potential to occur onsite. Additionally, a nine quadrangle search of the California Department of Fish & Wildlife (CDFW), California Natural Diversity Database (CNDDB) was reviewed including the USGS Auburn, Lake Combie, Pilot Hill, Wolf, Coloma, Gold Hill, Rocklin, Colfax and Greedwood 7.5 minute quadrangles. Based on the results of the species lists, appropriate biological and botanical surveys were conducted.

In February 2020, Dudek conducted an evaluation of oak resources present on the site (Appendix E) and identified eight native oak trees, blue oak (*Quercus douglasii*) and interior live oak (*Quercus wislizeni)* and three gray pine trees (*Pinus sabiniana)*. Seven of the oak trees meet the County's definition of an Individual Native oak tree and one meets the definition of a Heritage Tree. No oak woodlands were identified on the site.

Special-Status Wildlife Species

Many animal and plant species within the region are given special-status under State and federal law because they are rare, threatened, endangered, or otherwise identified as needing protection in order to ensure their survival. Special-status plant and animal species fall into one or more of the following categories:

- Officially listed or proposed for listing under the State and/or federal Endangered Species Acts.
- State or federal candidate for possible listing.
- Species meeting the criteria for listing, even if not currently included on any list, as described in Section 15380 of the California Environmental Quality Act (CEQA) Guidelines.
- Protected under the Federal Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act.
- Species considered by the CDFW to be a "Species of Special Concern."

Results of the CNDDB and IPaC searches revealed 22 listed or special-status wildlife species or species proposed for listing as rare, threatened, or endangered by either the CDFW or USFWS (See Table 1 in Appendix D). Of these 22 species, 14 species were removed from consideration due to lack of suitable habitat or because the site is outside the known geographic range of the species. The remaining species that have marginal potential to occur

are pallid bat (*Antrozous pallidus*), White-tailed kite *(Ellanus leucuru),* Purple martin (*Progne subis),* American peregrine falcon (*Falco peregrinus anatum),* Obscure bumble bee (*Bombus caliginosus),* Morrison bumble bee (*Bombus morrisoni), and* Consumnes stripetail (*Cosumnoperia hypocrena*). None of these species were observed during the field survey. They are discussed further, below.

Pallid Bat (Antrozous pallidus)

Pallid bat is not federally or State listed, but is considered a CDFW species of special concern, and is classified by the Western Bat Working Group (WBWG) as a High priority species. It favors roosting sites in crevices in rock outcrops, caves, abandoned mines, hollow trees, and human-made structures such as barns, attics, and sheds (WBWG 2017). Roosting habitat for this species is present in tree hollows and under exfoliating bark on trees present on the project site. No pallid bats were observed during the surveys (Appendix D).

White Tailed Kite (Elanus leucurus)

White-tailed kite is not federally or State listed but is a CDFW fully protected species. This species is a yearlong resident in the Central Valley and is primarily found in or near foraging areas such as open grasslands, meadows, farmlands, savannahs, and emergent wetlands. White-tailed kites typically nest from March through June in trees within riparian, oak woodland, and savannah habitats of the Central Valley and Coast Range.

Trees on the project site provide nesting habitat for white-tailed kite, and the non-native annual grasslands in the area including the project site are foraging habitat. No white-tailed kites were observed during the surveys (Appendix D).

Purple Martin (Progne subis)

Purple martin is a State species of special concern. It inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and riparian habitats. Purple martin nests in old woodpecker cavities mostly; also in humanmade structures. Nests are often located in tall, isolated trees or snags. The project site lacks suitable riparian and nesting habitat. None were observed during the habitat survey.

American Peregrine Falcon (Falco peregrinus anatum)

American peregrine falcon is found near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also humanmade structures. Nests consists of a scrape or a depression or ledge in an open site. The subject property is not near lakes or other suitable habitat. None were observed during the habitat survey.

Obscure Bumble Bee (Bombus caliginosus)

Obscure bumble bee forage on good plant genera including *baccharis, cirsium, lupines, lotus, grindelia* and *phacelia. The project site* has a sparse amount of flowers required for forage, and no nest sites or overwintering sites to sustain this species. None were observed during onsite surveys.

Morrison Bumble Bee (Bombus morrisoni)

Morrison bumble bee forage on food plant genera including *cirsium, cleome, helianthus, lupinus, chrysothamus* and *melilotus*. The project site has a sparse amount of flowers required for forage, and no nest sites or

overwintering sites to sustain this species. The site is not within the known range of this species and none observed during onsite surveys.

Consumnes Stripetail (Cosumnoperia hypocrena)

The Cosumnes stripetail is a species of stonefly found in intermittent streams on western slope of central Sierra Nevada foothills in American and Cosumnes River basins. The project site has a sparse amount of flowers required for forage, and no nest sites or overwintering sites to sustain this species. None were observed during onsite surveys.

Special-Status Plant Species

The CNDDB, CNPS, and IPaC searches revealed 17 listed or special-status plant species or species proposed for listing as rare, threatened, or endangered by either the CDFW or USFWS that occur in the project region. There are 15 special-status plant species that could be present on the site; however, none were observed during the field survey primarily due to the disturbed nature of the site. The likelihood that any of these species exist on the site is considered very low because the site is either outside of the species known range, or the site does not contain suitable habitat for these species (Appendix D).

Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies and those that are protected under Section 1600 of the California Fish and Game Code, or Section 404 of the Clean Water Act. During the field survey in May and June 2019, the project site was surveyed to identify the potential for supporting special-status species and sensitive habitats. No sensitive habitats were identified within the site.

Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large areas or patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small areas or patches of land that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that essentially function as ‘stepping stones’ for wildlife dispersal.

The project site is surrounded by commercial development, vacant lands, and paved roads. In addition, the project site is less than 2 acres and does not contain high quality habitat. Thus, the project site itself does not provide suitable components of a wildlife corridor or provide habitat linkages for terrestrial species.

Native Nesting Migratory Birds

Native migratory birds and their nests and eggs are protected by the federal Migratory Bird Treaty Act and California Fish and Game Code Sections 3503.5 and 3511. The site provides nesting habitat for native bird species, including raptors such as red-tailed hawk (*Buteo jamaicensis*) and White-tailed kite (*Ellanus leucurus)*.

3.2.2 Regulatory Setting

Federal Regulations

Endangered Species Act

The Endangered Species Act (ESA) (16 U.S. Code [USC] Section 1531 *et seq*.; 50 Code of Federal Regulations [CFR] Parts 17 and 222) provides for conservation of species that are endangered or threatened throughout all or a substantial portion of their range, as well as protection of the habitats on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. In general, USFWS manages terrestrial and freshwater species, whereas NMFS manages marine and anadromous species.

Section 9 of the ESA and its implementing regulations prohibit the "take" of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. The ESA defines the term "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC Section 1532). Section 7 of the ESA (16 USC Section 1531 *et seq*.) outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitats. Section 10(a)(1)(B) of the ESA provides a process by which nonfederal entities may obtain an incidental take permit from USFWS or NMFS for otherwise lawful activities that incidentally may result in "take" of endangered or threatened species, subject to specific conditions. A habitat conservation plan (HCP) must accompany an application for an incidental take permit. threatened species, subject to specific conditions.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC, Chapter 7, Subchapter II) protects migratory birds. Most actions that result in take, or the permanent or temporary possession of, a migratory bird constitute violations of the MBTA. The MBTA also prohibits destruction of occupied nests. USFWS is responsible for overseeing compliance with the MBTA.

Clean Water Act

Clean Water Act (CWA) section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, vernal pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of U.S. Army Corps of Engineers (USACE) under the provisions of CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of CWA.

Section 401 of the CWA requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the U.S. In California, the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and its water quality

control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that may result in the discharge to waters of the U.S. (including wetlands or vernal pools) must also obtain a Section 401 water quality certification to ensure that any such discharge will comply with the applicable provisions of the CWA.

State Regulations

California Fish and Game Code

The California Fish and Game Code includes various statutes that protect biological resources, including the Native Plant Protection Act of 1977 (NPPA) and the California Endangered Species Act (CESA). The NPPA (California Fish and Game Code Section 1900-1913) authorizes the Fish and Game Commission to designate plants as endangered or rare and prohibits take of any such plants, except as authorized in limited circumstances.

CESA (California Fish and Game Code Section 2050–2098) prohibits state agencies from approving a project that would jeopardize the continued existence of a species listed under CESA as endangered or threatened. Section 2080 of the California Fish and Game Code prohibits the take of any species that is state listed as endangered or threatened, or designated as a candidate for such listing. California Department of Fish and Wildlife (CDFW) may issue an incidental take permit authorizing the take of listed and candidate species if that take is incidental to an otherwise lawful activity, subject to specified conditions.

California Fish and Game Code Section 3503, 3513, and 3800 protect native and migratory birds, including their active or inactive nests and eggs, from all forms of take. In addition, Section 3511, 4700, 5050, and 5515 identify species that are fully protected from all forms of take. Section 3511 lists fully protected birds, Section 5515 lists fully protected fish, Section 4700 lists fully protected mammals, and Section 5050 lists fully protected amphibians.

California Native Plant Protection Act

The California Native Plant Protection Act (California Fish and Game Code Section 1900–1913) prohibits the taking, possessing, or sale of any plants with a state designation of rare, threatened, or endangered (as defined by CDFW). The California Native Plant Society (CNPS) maintains a list of plant species native to California that has low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California (CNPS 2001). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review.

Local Regulations

2004 El Dorado County General Plan

The County's General Plan include goals and policies that contain specific, enforceable requirements and/or restrictions and corresponding performance standards that address potential impacts on special-status plant and wildlife species and also create opportunities for habitat improvement.

The project site is not located on the County's IBC & PCA Layers map (July 20, 2017) which identifies priority conservation areas and important biology corridors.

The County's Open Space and Conservation Element includes the following goals, objectives and policies applicable to the proposed project.

- **GOAL 7.4: WILDLIFE AND VEGETATION RESOURCES** Identify, conserve, and manage wildlife, wildlife habitat, fisheries, and vegetation resources of significant biological, ecological, and recreational value.
  - **OBJECTIVE 7.4.2: 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 7.4.2.1:** The County will coordinate wildlife and vegetation protection programs with appropriate Federal and State agencies.
    - **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 California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- Wildlife species identified by US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) 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;
- 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 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.

Habitat Mitigation Summary Table			
Vegetation Type	*Preservation*	*Creation*	*Total*
Water	N/A	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	N/A	1:1

B. Wildlife Movement for future 4- and 6- and 8-lane roadway construction projects. Consideration of wildlife movement will be given by the County on all future 4-, 6, and 8-lane roadway construction and widening projects. Impacts on public safety and wildlife movement for projects that include new roads of 4 or more lanes or the widening of roads to 4 or more lanes will be evaluated during the development review process (see Section C below). The analysis of wildlife movement impacts will take into account the conditions of the project site and surrounding property to determine whether wildlife undercrossings are warranted and, if so, the type, size, and locations that would best mitigate a project's impacts on wildlife movement and associated public safety.

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* (CDFG 2010) 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., U.S. Highway 50 and across canyons).

E. Mitigation Assistance. The County will establish and maintain a database of willing sellers of land for mitigation of biological resource impacts within the County. The County will manage the database as a voluntary program wherein landowners must opt-in to be included in the database by contacting the County. The database will include the following information:

- Property owner name
- Assessor's Parcel Number
- Parcel acreage
- General vegetation communities as mapped in the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) database
- Location within PCA, IBC, or important ecological area, as defined in the Updated INRMP Initial Inventory and Mapping (June 2010).

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.

- **Objective 7.4.4: Forest, Oak Woodland, and Tree Resources** Protect and conserve forest, oak woodland, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.
  - **Policy 7.4.4.2:** Through the review of discretionary projects, the County, consistent with any limitations imposed by State law, shall encourage the conservation protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.
  - **Policy 7.4.4.3:** Encourage the clustering of development to retain the largest contiguous areas of forests and oak woodlands possible.

- **Policy 7.4.4.4:** For all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees, the County shall require mitigation as outlined in the El Dorado County Oak Resources Management Plan (ORMP). The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in Policy 7.4.2.8.

Oak Resources Management Plan (Ordinance No. 5061)

The County's Oak Conservation Ordinance defines oak resources within the County as Oak Woodlands, Individual Native Oak Trees, and Heritage Trees and applies to all development activities that remove oak trees below the 4,000 foot elevation. The County has prepared an Oak Resources Management Plan (ORMP) which is referenced in combination with the ordinance to identify tree species, impact reporting requirements, and standards for mitigation. Oak resources covered under the ORMP and the ordinance include the following:

Individual Native Oak Tree are defined as:

> "Any live native oak tree of the genus Quercus (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main trunk measuring greater than 6 but less than 36 inches dbh, or with a multiple trunk with an aggregate trunk diameter measuring greater than 10 but less than 36 inches dbh."

Heritage Trees are defined as:

> "Any live native oak tree of the genus Quercus (including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), Oregon oak (*Quercus garryana*), oracle oak (*Quercus x morehus*), or hybrids thereof) with a single main trunk measuring 36 inches dbh or greater, or with a multiple trunk with an aggregate trunk diameter measuring 36 inches or greater."

3.3.3 Significance Criteria

As evaluated in the Initial Study (Appendix A), the proposed project would have no impact with respect to the following significance criterion:

- Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Therefore, these topics are not discussed further in this Draft EIR.

The analysis below evaluates potentially significant project impacts related to biological and forestry resources based on the following significance criteria. A significant impact would occur if development of the proposed project would do any of the following:

- Result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- 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.

3.3.4 Project Impacts

Methodology

CEQA requires that projects analyze the potential impacts on special-status plant and animal species, as well as on sensitive habitats, wildlife corridors, and waters of the United States. Impacts on wildlife species that are not considered special-status under CEQA are generally not considered significant unless impacts are associated with the species' migration routes or movements, or the species are considered locally important. In the area surrounding the project site, other common species (e.g., deer, skunk, raccoon, and possum) would not be considered special-status species; however, impacts on their movements and migration routes would be considered significant under CEQA. Regardless of status, all nesting native bird species are protected from harm under the State Fish and Game Code and the federal MBTA.

The following sources were reviewed in the process of evaluating potential project impacts including the Biological Assessment and Wetland Determination report prepared by Bole & Associates (revised February 18, 2020), Cool Dollar General Oak Resources Technical report prepared by Dudek (February 25, 2020), the 2004 El Dorado County General Plan (last amended December 2019), and relevant federal, State, and local regulations and plans as they relate to sensitive biological resources. Copies of the biological reports listed above are included in Appendix D to this EIR.

Project Impacts

Impact 3.3-1

The project could have a substantial adverse effect on species identified as a candidate, sensitive, or special-status species in local or regional plans, by the California Department of Fish and Wildlife, or U.S. Fish and Wildlife Service.

Consistent with General Plan policy 7.4.2.8(C), a Biological Assessment and Wetland Determination report was prepared by Bole & Associates to determine if the project site contains any special-status plant or wildlife resources. The results of the assessment and potential impacts associated with construction and operation of the project is addressed below.

Special-Status Plants

As noted in the Biological Assessment and Wetland Determination report prepared by Bole & Associates (Appendix D), the literature search noted that project site provides marginal habitat for special-status plants including Hartweg's golden sunburst (*Pseudobahia bahiifolia),* Jepson's onion (*Allium jepsonii),* Big-scale balsamroot (*Balsamorhiza macrolepis),* El Dorado County mule ears (*Wyethia reticulata*) *and* Stebbins' morning-glory (*Calystegia stebbinsii)* because the habitat on-site is highly disturbed due to prior grading and these species were not observed during the site survey. The site surveys were conducted during the blooming season when these special-status plants would be evident and identifiable and were evaluated based on elevation, soils, and existing disturbance levels for each plant species. (Appendix D). Thus, it is not likely these plant species occur on the project site and any impacts to special-status plant species anticipated to occur as a result of the proposed project would be **less than significant**.

Special-Status Wildlife

Based on the results of the literature search conducted for the project site, marginal foraging and nesting habitat for numerous invertebrates, birds and mammals was identified. Trees on site provide roosting habitat for bat species common to the area. The remainder of the site provides potential nesting and foraging habitat for white-tailed kite, purple martin, American peregrine falcon. Potential impacts to these species and their habitat are discussed below.

Invertebrates

Obscure bumble bee, Morrison bumble bee, Cosumnes stripetail

The Obscure bumble bee and Morrison bumble bee prefer flowering plants including lupines, chrysothamus, helianthus and lotus. The project site has been disturbed and contains very few flowering plants including the species required for foraging and also nesting for these bumble bees. The Cosumnes stripetail is typically found in intermittent streams on the western slope of the Sierra Nevada foothills in the American or Cosumnes River basins. The project site is not within or near any water bodies nor does the site provide flowering plants required for nesting and foraging for these species. None of these species were observed during the field survey. It is not likely these species occur on the project site and any impacts anticipated to occur as a result of the proposed project would be **less than significant**.

Birds

White-Tailed Kite, Purple Martin, American Peregrine Falcon

The White-tailed kite prefers rolling foothills with scattered oaks and agricultural lands or meadows and marshes for foraging. Isolated dense-topped trees are preferred for nesting. On-site oak trees do not provide dense-topped trees for nesting and no suitable habitat for foraging is present in the site. The American peregrine falcon prefers areas near lakes, rivers or other sources of water. This species nests on ledges or in areas with cliffs. The project site is not near lakes or other suitable nesting or foraging habitat for this species. Purple martin prefers woodlands, coniferous forests or riparian habitat. This species nest in old woodpecker cavities also in human-made structures such as under bridges and overpasses. The project site lacks foraging and nesting habitat for this species.

Project construction could impact nesting raptors or other protected migratory birds in the project vicinity, which are protected under the Migratory Bird Treaty Act, due to construction activities such as tree and vegetation removal, ground disturbances, heavy equipment use. According to the California Department of Fish and Wildlife (CDFW) Code 3503, "take" of the nest or eggs of any bird is prohibited, except upon approval from the California Department of Fish and Wildlife. If any of the species discussed above or other nesting birds are present during construction, noise, light, and other construction activities could result in nest failure if active nests are present within the on-site trees slated for removal or within 0.5 mile of the project site at the time of construction. Disturbance of active nests can be avoided during construction through appropriate measures. Impacts would be **potentially significant** but anticipated to be reduced to less than significant with adherence to General Plan Policies and mitigation.

Mammals

Pallid Bat

The project site provides roosting habitat for pallid bats in tree hollows, under exfoliating bark on trees, abandoned woodpecker holes and in the foliage of trees on the site. Project removal of trees could remove roosting habitat. Foraging habitat for bats on the project site includes the open area and surrounding lands. This habitat along with seven trees (one tree would be preserved) would be removed by the project. Therefore, loss of roosting and foraging habitat along with construction activities could disturb these species if they are present on the site. This is a **potentially significant impact.**

Impact 3.3-2

The project would not interfere with the movement of any migratory fish or wildlife species or with established native resident or migratory wildlife corridors or affect the use of native wildlife nursery sites.

The Biological Assessment and Wetland Determination report (Appendix D), notes that the project site does not support any streams or waterways; therefore, no protected fish species would be impacted by the project. The project site is less than 2 acres and is located in a developed area surrounded by commercial development, vacant lands, and paved roads. The site has been disturbed and does not contain high quality habitat. Thus, the project site itself does not provide suitable components required for a wildlife corridor or a wildlife nursery site. The proposed project would not adversely affect or interfere with any native wildlife species or with an established migratory wildlife corridor, or nursery site. The project site is also not within a County-designated IBC overlay. impacts would be anticipated to be **less than significant.**

Impact 3.3-3

The project would not conflict with any local policies or ordinances protecting biological resources, including the County's tree preservation ordinance.

The El Dorado County Code and General Plan include specific guidance and policies pertaining to the protection of biological resources including protection of rare plants and wildlife resources, oak tree resources, and wetlands and riparian areas. As noted under Impact 3.3-1, a Biological Assessment and Wetland Determination report was prepared for the project site consistent with General Plan 7.4.2.8(C). The County's Oak Resources Management Plan (ORMP) and County Ordinance No. 5061 require impacts to oak trees be evaluated. General Plan policy 7.4.4.4 requires all new development to mitigate impacts to oak woodland or individual native oak trees consistent with ORMP. To evaluate the on-site trees consistent with this policy an Oak Resources Technical

report was prepared by Dudek (Appendix E). Compliance with the mitigation requirements is addressed further below. General Plan policy 7.4.4.2 encourages new development to conserve, plant, restore and regenerate native trees. Project landscaping would include trees planted in the parking lot, and a variety of shrubs and ground cover around the parking lot and building. The project is consistent with the County's General Plan and would not conflict with any policies.

The Oak Resources report identifies 11 trees on the project site concentrated along the eastern project boundary and the northwest corner of the site. Of the trees on the site, eight meet the County's definition of Individual Native Oak Trees and one is classified as a Heritage Tree. The remaining three trees are Gray pines. The Oak Resources Technical report assesses the health, size and species of the trees on the site. Table 3.3-1 notes the tree species, size and indicates which trees would not be removed to accommodate the project.

Table 3.3-1 Trees on the Project Site.

Botanical Name	Common Name	Total Trunk Diameter (in.)	Individual Native Oak Tree	Heritage Tree	Retain
Quercus douglasii	Blue oak	21	Yes	No	No[1]
Quercus douglasii	Blue oak	19	Yes	No	Yes
Quercus wislizeni	Interior live oak	40	Yes	Yes	No
Pinus sabiniana	Gray pine	17	No	No	No
Quercus douglasii	Blue oak	15	Yes	No	No
Quercus douglasii	Blue oak	21	Yes	No	No
Quercus wislizeni	Interior live oak	27	Yes	No	No
Pinus sabiniana	Gray pine	16	No	No	No
Quercus douglasii	Blue oak	20	Yes	No	No
Pinus sabiniana	Gray pine	7	No	No	No
Quercus wislizeni	Interior live oak	24	Yes	No	No

Source: Appendix D.
Notes:
[1] The project's grading plan identifies that this will be retained; however, grading activity will disturb approximately 50% of this tree's root area. Post-construction survival of the tree with this level of root disturbance is unlikely, therefore, it has been identified as an impact for the purposes of this report.

As noted in the table, the project proposes to remove all on-site trees with the exception of the tree designated as a Heritage Tree. To address removal of the trees the project is required to comply with the County's mitigation for Individual Native Oak Tree and Heritage Tree impacts, as outlined in County Ordinance 5061, Section 130.39.070(C)(2). This would require either payment of an in-lieu fee or off-site replacement planting within an area subject to a Conservation Easement or acquisition in fee title by a land conservation organization. Replacement sizes and quantities shall be consistent with Table 4 in the ORMP. The project would not conflict with the ordinance.

The remaining Heritage Tree would potentially be impacted by construction activities. Specifically, grading could disturb approximately 50% of the tree's root area. Post-construction survival of the tree with this level of root disturbance is unlikely. Because the project may affect the health of this protected, replacement plantings or fees for this tree is required per County Ordinance 5061.

Compliance with required tree protection measures prior to, during and after grading and construction activities would help minimize damage to the tree roots and enhance the health and vigor of the tree. Compliance with these protection measures and mandatory tree replacement would reduce project impacts to less than significant.

3.3.5 Cumulative Impacts

When considered independently, impacts from an individual project may not be significant; however, the combined effects of several projects may be significant when considered collectively. Cumulative impacts associated with proposed project have been analyzed in combination with other past, current and reasonably foreseeable development projects in western El Dorado County, including the community of Cool. The County has identified two projects within several miles of the proposed project, including a signage update to the 76 gas station located across the street from the proposed project and a cell tower located a couple of miles from the project site.

The 76 gas station affects only the built environment (signage) and would not contribute to biological impacts. The cell tower construction would potentially impact similar resources as the proposed project, including nesting birds. Due to the small size of the cumulative projects, including the proposed site, no significant habitat loss would result. Compliance with applicable County and State regulations for protection of biological resources, including oak trees and nesting birds, would avoid or substantially reduce cumulative impacts. Therefore, the proposed project, combined with other projects, would not result in a cumulative impact. Cumulative impacts would be **less than significant.**

3.3.6 Mitigation Measures

The following mitigation measures would reduce the potential for impacts on special-status species by ensuring the species are identified and protected during project construction activities.

BIO-1: If project-related construction activities including site clearing, tree removal and grading are scheduled during the nesting season (typically February 1 to September 30), a focused pre-construction survey for nests shall be conducted by a qualified biologist within three (3) days prior to the beginning of project-related activities. The qualified biologist shall survey the area within a minimum 500-foot radius around the boundaries of the project site. If an active nest is found, a non-disturbance buffer shall be established around the nest. The width of the buffer shall be determined by the qualified biologist based on the species of bird, its general tolerance of disturbance, and the type of activity proposed. If a lapse in project-related work of seven (7) days or longer occurs, another focused survey shall be conducted.

Monitoring Requirement: The applicant shall conduct all construction activities outside the nesting season or perform a pre-construction survey and implement the avoidance measures determined by the qualified biologist prior to initiation of construction activities. This mitigation measure shall be noted on grading and construction plans. If a pre-construction survey is required, the applicant shall provide evidence of the survey to the El Dorado County Planning and Building Department to verify compliance prior to issuance of grading and building permits.

Monitoring Responsibility: El Dorado County Planning and Building Department.

BIO-2: A pre-construction survey shall be performed by a qualified biologist 30 days prior to initiation of construction activities to assess whether roosting bats occur in the abandoned house on the proposed subdivision site. If any roosting bats are detected, consultation with CDFW shall be initiated to identify appropriate measures to be taken to avoid and/or minimize impacts to the species, which can include approval to exclude any bats potentially found on the site before vegetation removal or grading.

Monitoring Requirement: This mitigation measure shall be noted on grading and construction plans. The applicant shall provide evidence of the survey to the El Dorado County Planning and Building Department to verify compliance prior to issuance of grading and building permits.

Monitoring Responsibility: El Dorado County Planning and Building Department.

Implementation of Mitigation Measures BIO-1 and BIO-2 would avoid or substantially reduce potential impacts to special status species.

3.3.7 References

Bole & Associates 2020. Revised Biological Assessment and Wetland Determination for El Dorado County APN 071-500-037, Located in Section 18, Township 12 North, Range 9 East, 1020 Northside Drive, Cool, El Dorado County, CA 95614. February 18, 2020.

Dudek 2020. DR19-0006/Cool Dollar General, Oak Resources Technical Report, Dudek, February 25, 2020.

El Dorado County 2019. 2004 El Dorado County General Plan A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief. Adopted July 19, 2004, last amended December 10, 2019.

El Dorado County 2017. IBC & PCA Layers El Dorado County. July 20, 2017.

Western Bat Working Group (WBWG). 2017. Species Matrix and Species Accounts. Accessed on-line at http://wbwg.org/ in November 2020.

3.4 Cultural Resources and Tribal Cultural Resources

This section describes the potential for prehistoric resources, historical resources, and tribal cultural resources to be damaged as a result of development of the project, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Cool Dollar General (proposed project). Prehistoric resources include sites and artifacts associated with the indigenous, non-Euro-American population, generally prior to contact with people of the European descent. Historical resources consist of structures, features, artifacts, and sites that date from Euro-American settlement of the region. This section relies upon the following report: Bole and Associates, *Cultural Resources Inventory Survey, Cool Development Project*, June 3, 2019 (included as Appendix F of this EIR).

3.4.1 Environmental Setting

Prehistory

Initial human entry into California occurred at the beginning of the paleo-Indian Period – between about 10,000 and 6,000 B.C. (Fredrickson 1974). Within portions of the Central Valley, fluted projectile points have been found at Tracy Lake (Heizer 1938) and around the margins of Buena Vista Lake in Kern County. Similar materials have been found to the north, at Samwel Cave near Shasta Lake and near McCloud and Big Springs in Siskiyou County. These early peoples are thought to have subsisted using a combination of hunting and lacustrine exploitation (Moratto 2004).

These early cultural assemblages were followed by an increase in Native population density after about 7,500 years ago. Archaeologically defined as the Lower Archaic Period (6,000 to 3,000 BC), the transition to a less specialized foraging strategy clearly coincides with a middle Holocene climatic change to generally drier conditions which brought about desiccation of many of the West's pluvial lakes. Hunting and gathering populations of this period were small, mobile groups that focused increasingly on diverse environmental settings. By the beginning of the Middle Archaic Period (from about 3,000 to 1,000 BC), the broad regional patterns of foraging subsistence strategies had given way to more intensive procurement strategies, manifest in part by the establishment of year-round use of select village sites which in turn were located along major waterways. One of the most securely dated of these Archaic assemblages in northern California is from the Squaw Creek Site located north of Redding. Here, a charcoal-based C-14 date suggests extensive Native American presence around 6,500 years ago, or 4,500 BC. Most of the artifactual material dating to this time period has counterparts further south, around Borax (Clear) Lake and the Farmington Area a short distance east of Sacramento. Important artifact types from this time period include large wide-stemmed projectile points and manos and metates.

Toward the end of this period, between about 1,000 BC and AD 100, sociopolitical complexity and the development of status distinctions appear, partially defining the Upper Archaic Period. Archaeological expressions within the northern and north-central Sierra Nevada during this period are defined as the Martis Complex, which maintained a huntergathering subsistence strategy and a high degree of mobility. Distinctive artifact types include manos and metates used for processing food, and relatively large, heavy projectile points and bifaces manufactured from locally available basalt.

Defining the Emergent Period, from AD 300-500 through AD 1,800, within both northern and north-central Sierra Nevada and Central Valley contexts, Penutian-speaking Native American peoples are thought to have arrived, including those (i.e., Nisenan) who occupied lands within and around the project area at the time of initial contact

with EuropeanAmerican populations. Arriving ultimately from southern Oregon and the Columbia and Modoc Plateau region and proceeding down the major drainage systems (including the Feather, Yuba, Bear and American Rivers), these Penutian-speaking arrivals may have begun to displace the Martis populations, especially along the major river systems (Moratto 2004:303-304). Presumably introduced by these Penutian arrivals were more extensive use of bulbs and other plant foods, animal and fishing products more intensively processed with mortars and pestles, and perhaps the bow and arrow and associated small stemmed- and corner-notched projectile points (Ragir 1972).

Ethnography

The project area is located within territory occupied by the Nisenan at the time of initial contact with European Americans (Wilson and Towne 1978: Figure 1). The Nisenan are Native American peoples also referred to as "Southern Maidu" who occupied the drainages of the southern Feather River and Honcut Creek in the north, through Bear River and the Yuba and American River drainages in the south. Villages were frequently located on flats adjoining streams, and were inhabited mainly in the winter as it was usually necessary to go out into the hills and higher elevation zones to establish temporary camps during food gathering seasons (i.e., spring, summer and fall).

As with all northern California Indian groups, economic life for the Nisenan revolved around hunting, fishing and the collecting of plant foods. These people were very sophisticated in terms of their knowledge of the uses of local animals and plants, and of the availability of raw material sources that could be used in manufacturing an immense array of primary and secondary tools and implements. Unfortunately, only fragmentary evidence of the material culture of these people remains, due in part to perishability and in part to the impacts to archaeological sites resulting from later (historic) land uses (mining, timber harvest, and ranching).

Historic Context

Historic evidence exists to document that some of the Spanish and Mexican expeditions of the early 19th century may have come through and made brief stays within northern California. Gabriel Moraga's expedition was undertaken in 1806, with additional incursions occurring through the 1840's. European Americans began arriving in more substantial numbers in the mid-1820's, most notably with the trapping expeditions of Jedediah Smith.

In 1849, the discovery of gold at nearby Coloma led immediately to exploration and intensive placer mining along all virtually every stream in California (Clark 1970), including in particular Black Rock Creek and Blue Tent Creek, both of which are located east of the project area, and of course all other tributaries to and including as well the various Forks of the American River.

Mining dominated the economy and supported the growth of ancillary industry such as drygoods stores, saloons, toll roads and stage lines, foundries, lumber mills, and water companies. As mining became more corporate and began to eliminate small-scale participation, many miners turned to agriculture and support industries. Most of the early ranches that resulted were self-sufficient operations which included a variety of kept animals, small plots dedicated to growing vegetables and grain, and orchards and vineyards.

Water storage and transportation and related hydroelectric development represent additional important historic themes in El Dorado County, along with logging, ground transportation, public land entry, and homesteading.

The early mining activity, coupled with historic through contemporary logging, ranching and associated water distribution projects, have all impacted prehistoric and early historic sites in this portion of El Dorado County and the project area.

It appears likely that construction of Highway 49, adjacent to the west side of the property, may have affected a portion of the project area, and aerial images of the property indicate that it, as well as the adjacent lands, have been intensively disturbed throughout the past several decades.

Cave Valley/Cool Elementary School was established sometime around 1900, and was formerly located southeast of the present APE. In 1952, the Northside Elementary School was constructed south of Cool, replacing the former school, which was subsequently demolished.

Records Search And Field Survey

North Central Information Center Records

The official El Dorado County archaeological records were examined on May 22, 2019 (NCIC File No. ELD-19-56). This search documented the 1.69-acre Area of Potential Effect (APE), which consists of the project site, and a 1/4-mile radius surrounding the APE. According to the Information Center, approximately 90% of the APE has been subjected to past archaeological survey as a result of three previous investigations. Twelve (12) investigations have been conducted within the adjacent search radius. Collectively, fifteen (15) investigations have been documented within the overall search area (with four additional volumes, totaling 19 citations). These investigations are listed in the Cultural Resources Inventory Report (Appendix F).

According to the Information Center's records, one resource (P-09-3627) has been documented within the APE. Supernowicz (2000) described the site as consisting of the remnants of the historic Cave Valley/Cool Elementary School and bedrock outcrops that may have utilized for prehistoric lithic procurement. An examination of the primary record for this site revealed that no site boundary was provided on the site sketch map.

Examination of both the site location and site sketch maps, coupled with the site description, confirmed that the site did not extend into outside of the 2000 subject property survey boundary. Consequently, the site was erroneously plotted as within the current APE, and efforts were made during the present investigation (see below) to confirm that no components of site P-09-3627 extend into the present APE. Additionally, four resources (P-09-3629, -3632, -3633, -5875) have been documented within the search radius.

Survey

Fieldwork was undertaken on May 30, 2019 by a professional who meets the Secretary of Interior's Standards for Professional Qualification. All of the APE was subjected to intensive pedestrian survey by means of walking parallel transects, spaced at 10-meter intervals.

Prehistoric Resources

No evidence of prehistoric use or occupation was observed within the APE. The absence of such materials might best be explained by the extensive disturbance to which the property has been subjected, and to more suitable habitation settings at nearby locales. As noted in the records search section, above, one multi-component site (P-09-3627) has been documented immediately south of the present APE. Consequently, particular attention was paid

to the surface soils within the subject APE's southern boundary. Trowel probes and examination of rodent back dirt piles failed to identify any prehistoric cultural material.

Further, components of site P-09-3627, located south of the present APE were examined carefully. No evidence of prehistoric occupation, use or activity was observed. Instead, extensive ground disturbance was noted within that southern parcel, with several large boulders exhibiting evidence of having been moved into their current locations at some point in the recent (<50 years) past.

Historic-era Resources

No evidence of historic use or occupation was observed within the APE. As with the findings of prehistoric resources, the absence of historic-era artifacts, features and sites may best be explained by the degree of disturbance to which most of the property has been subjected. No historic-era components associated with site P-09-3627 were observed within the subject APE.

Tribal Cultural Resources

As described in Section 3.1.4, below, outreach letters were sent to tribal representatives pursuant to AB 52 for the purpose of determining the potential presence of tribal cultural resources (TCRs). No TCRs were identified on the project site or in the project vicinity.

3.4.2 Regulatory Framework

Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the National Register of Historic Places (NRHP) as the official federal list of cultural resources that have been nominated by state offices for their historical significance at the local, state, or national level. Properties listed in the NRHP, or determined eligible for listing, must meet certain criteria for historical significance and possess integrity of form, location, and setting. Under Section 106 of the act and its implementing regulations, federal agencies are required to consider the effects of their actions, or those they fund or permit, on properties that may be eligible for listing or that are listed in the NRHP. The regulations in 36 CFR 60.4 describe the criteria to evaluate cultural resources for inclusion in the NRHP. Properties may be listed in the NRHP if they possess integrity of location, design, setting, materials, workmanship, feeling, and association, and they:

A. Are associated with events that have made a significant contribution to the broad patterns of our history;
B. Are associated with the lives of persons significant in our past;
C. Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
D. Have yielded, or may be likely to yield, information important in prehistory or history.

These factors are known as Criteria A, B, C, and D.

In addition, the resource must be at least 50 years old, except in exceptional circumstances. Eligible properties must meet at least one of the criteria and exhibit integrity, which is measured by the degree to which the resource retains its historical properties and conveys its historical character, the degree to which the original fabric has been retained, and the reversibility of the changes to the property. Archaeological sites are evaluated under Criterion D, which concerns the potential to yield information important in prehistory or history.

The Section 106 review process, typically undertaken between the U.S. Army Corps of Engineers as part of issuing a Section 404 permit and the State Historic Preservation Officer, involves a four-step procedure:

- Initiate the Section 106 process by establishing the undertaking, developing a plan for public involvement, and identifying other consulting parties.
- Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.
- Assess adverse effects by applying the criteria of adverse effect on historic properties (resources that are eligible for inclusion in the NRHP).
- Resolve adverse effects by consulting with the State Historic Preservation Officer and other consulting agencies, including the Advisory Council on Historic Preservation, if necessary, to develop an agreement that addresses the treatment of historic properties.

The Department of the Interior has set forth Standards and Guidelines for Archaeology and Historic Preservation. These standards and guidelines are not regulatory and do not set or interpret agency policy. A project that follows the standards and guidelines generally shall be considered mitigated to a less-than-significant level, according to Section 15064.5(b)(3) of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.).

State

California Register of Historical Resources

California Public Resources Code, Section 5024.1, authorizes the establishment of the CRHR. Any identified cultural resources must therefore be evaluated against the CRHR criteria. In order to be determined eligible for listing in the CRHR, a property must be significant at the local, state, or national level under one or more of the four significance criteria, modeled on the NRHP. In order to be determined eligible for listing in the CRHR, a property must be significant at the national, state, or local level under one or more of the following four criteria:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of the history and cultural heritage of California and the United States.
2. It is associated with the lives of persons important to the nation or to California's past.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. It has yielded, or may be likely to yield, information important to the prehistory or history of the state and the nation.

In addition to meeting one or more of the previous criteria, a significant property must also retain integrity. Properties eligible for listing in the CRHR must retain enough of their historic character to convey the reason(s) for their significance. Integrity is judged in relation to location, design, setting, materials, workmanship, feeling, and association.

California Environmental Quality Act

Under CEQA (California Public Resources Code, Section 21000 et seq.), public agencies must consider the effects of their actions on both historical resources and unique archaeological resources. Pursuant to CEQA 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 proposed projects would have effects on "unique archaeological resources."

"Historical resource" is a term of art with a defined statutory meaning (see California Public Resources Code, Section 21084.1, and 14 CCR 15064.5(a) and 15064.5(b)). The term embraces any resource listed in or determined to be eligible for listing in the CRHR. The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be "historical resources" for purposes of CEQA unless a preponderance of evidence indicates otherwise (California Public Resources Code, Section 5024.1, and 14 CCR 4850). Unless a resource listed in a survey has been demolished or has lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria as discussed previously, prior to making a finding as to a proposed project's impacts to historical resources (California Public Resources Code, Section 21084.1, and 14 CCR 15064.5(a)(3)). The fact that a resource is not listed or determined to be eligible for listing does not preclude a lead agency from determining that it may be a historical resource (California Public Resources Code, Section 21084.1, and 14 CCR 15064.5(a)(4)).

CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, as described previously, and unique archaeological resources. Under CEQA, an archaeological resource is considered "unique" if it:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person (California Public Resources Code, Section 21083.2(g)).

CEQA states that if a proposed project would result in an impact that might cause a substantial adverse change in the significance of a historical resource, then an EIR must be prepared and mitigation measures and alternatives must be considered. A "substantial adverse change" in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (14 CCR 15064.5(b)(1)).

The CEQA Guidelines (Section 15064.5(c)) also provide specific guidance on the treatment of archaeological resources, depending on whether they meet the definition of a historical resource or a unique archaeological

resource. If the site meets the definition of a unique archaeological resource, it must be treated in accordance with the provisions of California Public Resources Code, Section 21083.2.

CEQA Guidelines, Section 15064.5(e), requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the NAHC must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as identified in a timely manner by the NAHC. Section 15064.5 of the CEQA Guidelines directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

Senate Bill 18

Senate Bill (SB) 18 (Government Code, Sections 65352.3, 65352.4) requires that, prior to the adoption or amendment of a general plan proposed on or after March 1, 2005, a city or county must consult with Native American tribes with respect to the possible preservation of, or the mitigation of impacts to, specified Native American places, features, and objects located within that jurisdiction.

Senate Bill 297

SB 297 addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction; and establishes the NAHC to resolve disputes regarding the disposition of such remains. The provisions of SB 297 have been incorporated into Section 15064.5(e) of the CEQA Guidelines.

Assembly Bill 52

Assembly Bill (AB) 52 requires consultation with Native American tribes traditionally and culturally affiliated with the geographic area in which a project requiring CEQA review is proposed if those tribes have requested to be informed of such proposed projects. The intention of such consultation is to avoid adverse impacts to tribal cultural resources. This law is in addition to existing legislature protecting archaeological resources associated with California Native American tribes.

California Health and Safety Code

Section 7050.5(b) of the California Health and Safety Code specifies protocols to address any human remains that may be discovered. The code states:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in section 5097.98 of the Public Resources Code.

Local

El Dorado County General Plan

- **Policy 7.5.1.3**: Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.
- **Policy 7.5.1.4**:Promote the registration of historic districts, sites, buildings, structures, and objects in the National Register of Historic Places and inclusion in the California State Office of Historic Preservation's California Points of Historic Interest and California Inventory of Historic Resources.

3.4.3 Significance Criteria

The analysis below evaluates potentially significant project impacts related to cultural and tribal cultural resources based on the following significance criteria:

- Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?
- Would the project cause a substantial adverse change in the significance of archaeological resource pursuant to Section 15064.5?
- Would the project disturb any human remains, including those interred outside of formal cemeteries?
- Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Section 21074?

An adverse change in the significance of a historical or archaeological resource is one that would disturb, damage, or destroy the resource, while the disturbance or damage would reduce or eliminate the potential for the resource to yield important information and context regarding history.

3.4.4 Impact Analysis

Methodology

As described in the Cultural Resources Inventory Survey (Appendix F of the EIR), a records search and pedestrian survey were conducted. Several types of information were considered relevant to evaluating the types of archaeological sites and site distribution that might be encountered within the project area. The information evaluated prior to conducting the pedestrian survey includes data maintained by the North Central Information Center, and available published and unpublished documents relevant to regional prehistory, ethnography, and early historic developments.

Pursuant to AB 52, The United Auburn Indian Community of the Auburn Rancheria (UAIC), the Wilton Rancheria, the Washoe Tribe of Nevada and California, the Ione Band of Miwok Indians, the Nashville-El Dorado Miwok, the T'si Akim Maidu, and the Shingle Springs Band of Miwok Indians (SSBMI) were notified of the proposed project. The UAIC and the SSBMI requested, and received, the Cultural Resource Report and Biological Study for the project. No TCRs were identified through the consultation process and consultation was closed.

Project Impacts

Impact 3.4-1

The project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

The NCIC records search conducted for the project indicated that approximately 90 percent of the identified Area of Potential Effect (consisting of the project site plus a .25-mile radius) had been subjected to previous archaeological investigation, and that aside from a mapping error, no prehistoric or historic-era sites had been documented within the APE.

The intensive-level pedestrian survey of the APE, failed to identify any evidence of prehistoric or historic-era use or occupation within the APE. As noted in the Cultural Resources Inventory report, the absence of such materials might best be explained by the extensive disturbance to which most of the property has been subjected. The report concluded that no historic properties are present within the project area and no historic properties would be affected by development of the project, as presently proposed. Likewise, no significant historical resources, or unique archaeological resources are located within the APE. Project impacts would be **less than significant**.

Consultation was undertaken with the Native American Heritage Commission (NAHC) regarding sacred land listings for the property. An information request letter was delivered to the NAHC on May 16, 2019. With no response, a second request letter was submitted to the NAHC on May 28, 2019. To date, no response has been received from the NAHC.

Impact 3.4-2

The project would not cause a substantial adverse change in the significance of archaeological resource pursuant to Section 15064.5.

Based on the absence of significant historical resources/unique archaeological resources/historic properties within the APE, the report recommends archaeological clearance for the project as presently proposed. Standard conditions of approval imposed by the County on the project would address the accidental discovery of any previously unidentified resources during construction and result in project impacts. The potential impact of the project on archaeological resources is **less than significant**.

Impact 3.4-3

The project would not disturb any human remains, including those interred outside of formal cemeteries.

The Cultural Resources Inventory prepared for the project, which included a records search and an intensive pedestrian survey of the site, did not find evidence of potential human remains. In the unlikely event that human remains are discovered during construction, the County's standard conditions of approval requiring compliance with CEQA Guidelines Section 15064.5(e) would apply. The potential impact is **less than significant.**

Impact 3.4-4

The project could cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Section 21074.

The United Auburn Indian Community of the Auburn Rancheria (UAIC), the Wilton Rancheria, the Washoe Tribe of Nevada and California, the Ione Band of Miwok Indians, the Nashville-El Dorado Miwok, the T'si Akim Maidu, and the Shingle Springs Band of Miwok Indians (SSBMI) were notified of the proposed project and given access to all project documents. No other tribe had requested to be notified of the proposed projects for consultation in the project area at the time. In response to consultation requests from the UAIC and the SSBMI, the Cultural Resource Report and Biological Study were provided for this project. Pursuant to the Archaeological Report, the geographic area of the project sites are not known to contain any resources listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as designed in Public Resources Code section 5020.1(k), or considered significant by a California Native American tribe. As part of the consultation process with the UAIC, mitigation measures were identified to address inadvertent discoveries of potential tribal cultural resources. Although unlikely, inadvertent discovery of a TCR during construction could result in a **potentially significant** impact.

3.4.5 Cumulative

Although the project-specific impact analysis for cultural resources necessarily includes separate analyses for prehistoric resources, historic-period resources, and human remains, the cumulative analysis combines these resources into a single, non-renewable resource base and considers the additive effect of project-specific impacts to significant regional impacts on cultural resources.

3.4.6 Mitigation Measures

TCR-1: If any Tribal Cultural Resources (TCRs) are discovered during ground disturbing construction activities, all work shall cease within 100 feet of the find. The appropriate tribal representatives from culturally affiliated tribes shall be immediately notified. Work at the discovery location shall not resume, until the potential TCR is determined, in consultation with culturally affiliated tribes, that the find is not a TCR, or that the find is a TCR and all necessary investigation and evaluation of the discovery under the requirements the Public Resources Code has been satisfied. Preservation in place is the preferred alternative, and every effort must be made to preserve the identified resource in place, including but not limited to project redesign. Should be project redesign be required, the project shall be required to obtain a revision to the Design Review Permit. The contractor shall implement any measures deemed by the County to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find, as necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including, but not limited to, facilitating the appropriate tribal treatment of the find as necessary

Monitoring Requirement: This mitigation measure shall be noted on grading and construction plans.

Monitoring Responsibility: El Dorado County Planning and Building Department.

With implementation of Mitigation Measure TCR-1, impacts to cultural and tribal cultural resources would be reduced to **less than significant**.

3.4.7 References

Bole & Associates. 2019. *Cultural Resources Inventory Survey, Cool Development Project circa 1.69-acres, El Dorado County, California.* June 3, 2019.

El Dorado County. 2019. *2004 El Dorado County General Plan A Plan for Managed Growth and Open Roads; A Plan for Quality Neighborhoods and Traffic Relief*. Adopted July 19, 2004, last amended December 10, 2019.

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3.5 Energy

This section includes a description of existing energy resource conditions, a summary of applicable regulations, and analyses of potential short-term and long-term energy impacts of the proposed project.

No public comments related to energy were received in response to circulation of the Notice of Preparation (Appendix B).

3.5.1 Environmental Setting

Electricity and Natural Gas

Pacific Gas and Electric Company (PG&E) provides electrical and natural gas service to Cool. Incorporated in California in 1905, PG&E is one of the largest combination natural gas and electric utilities in the United States. It currently provides service to approximately 16 million people throughout a 70,000-square-mile service area in northern and central California from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean in the west to the Sierra Nevada in the east. The service area includes 106,681 circuit miles of electric distribution lines, 18,466 circuit miles of interconnected transmission lines. 42,141 miles of natural gas distribution pipelines and 6,438 miles of transportation pipelines. PG&E and other utilities in the state are regulated by the California Public Utilities Commission (PG&E 2020).

According to the U.S. Energy Information Administration (EIA), California used approximately 255,224 gigawatt hours of electricity in 2018 (EIA 2020a). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential sector is lower than any other state except Hawaii (EIA 2020b).

In El Dorado County, PG&E reported an annual electrical consumption of approximately 1,227 million kWh in 2019, with 460 million kWh for non-residential use and 767 million kWh for residential use (CEC 2020a).

According to the EIA, California used approximately 2,136,907 million cubic feet of natural gas in 2018 (EIA 2020c). The majority of California's natural gas customers are residential and small commercial customers (core customers). These customers account for approximately 35% of the natural gas delivered by California utilities (CPUC 2020). Large consumers, such as electric generators and industrial customers (noncore customers), account for approximately 65% of the natural gas delivered by California utilities (CPUC 2020). The California Public Utilities Commission (CPUC) regulates California natural gas rates and natural gas services, including in-state transportation over transmission and distribution pipeline systems, storage, procurement, metering, and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. Biogas (e.g. from wastewater treatment facilities or dairy farms) is just beginning to be delivered into the gas utility pipeline systems, and the State has been encouraging its development (CPUC 2020).

In 2019, PG&E had delivered approximately 35 million therms to El Dorado County, with 10 million therms for non-residential use and 25 million therms for residential use (CEC 2020b).

Petroleum

According to the EIA, California used approximately 681 million barrels of petroleum in 2018, with the majority (584 million barrels) used for the transportation sector (EIA 2020d). This total annual consumption equates to a daily use of approximately 1.9 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 78.4 million gallons of petroleum per day, adding up to an annual consumption of 29 billion gallons of petroleum. In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. California has implemented policies to improve vehicle efficiency and to support use of alternative transportation, which are described in Section 3.5.2, below.

3.5.2 Regulatory Framework

Federal Regulations

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 promoted the development of intermodal transportation systems to maximize mobility and address national and local interests in air quality and energy. ISTEA contained factors for metropolitan planning organizations to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, metropolitan planning organizations adopted policies defining the social, economic, energy, and environmental values guiding transportation decisions.

Transportation Equity Act for the 21st Century

The Transportation Equity Act for the 21st Century was signed into law in 1998 and builds on the initiatives established in the ISTEA legislation (previously discussed). The act authorizes highway, highway safety, transit, and other efficient surface transportation programs. The act continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of transportation decisions. The act also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of intelligent transportation systems to help improve operations and management of transportation systems and vehicle safety.

Energy Independence and Security Act of 2007.

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum (EPA 2017). The U.S. Environmental Protection Agency is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in greenhouse gas (GHG) emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the U.S. Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green" jobs.

State

Warren-Alquist Act

The California legislature passed the Warren-Alquist Act in 1974. The Warren-Alquist Act created the California Energy Commission (CEC). The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.

- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

State of California Energy Action Plan

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided, and identified policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. In 2005, a second Energy Action Plan was adopted by the CEC and CPUC to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state's energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an update that examines the state's ongoing actions in the context of global climate change.

Senate Bills 1078 (2002), 107 (2006), X1-2 (2011), 350 (2015) and 100 (2018)

Senate Bill (SB) 1078 established the California RPS Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20% standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.

SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20% of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) required all California utilities to generate 33% of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20% of electricity had to come from renewables; by December 31, 2016, 25% of electricity had to come from renewables; and by December 31, 2020, 33% will be required to come from renewables.

SB 350 (2015) expanded the RPS by requiring retail seller and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030, with interim goals of 40% by 2024 and 45% by 2027.

SB 100 (2018) accelerated and expanded the standards set forth in SB 350 by establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030 be secured from qualifying renewable energy sources. SB 100 also states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity does not increase carbon emissions elsewhere in the western grid. Additionally, 100% zero-carbon electricity cannot be achieved through resource shuffling.

Consequently, utility energy generation from non-renewable resources is expected to be reduced based on implementation of the RPS requirements described above. The proposed project's reliance on non-renewable energy sources would be reduced accordingly.

Assembly Bill 1007 (2005)

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Assembly Bill 32 (2006) and Senate Bill 32 (2016)

In 2006, the state legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources.

California Building Standards

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies. The current Title 24 standards are the 2019 Title 24 Building Energy Efficiency Standards, which became effective January 1, 2020. Title 24 also includes Part 11, California's Green Building Standards (CALGreen). CALGreen establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The 2019 CALGreen standards are the current applicable standards. For nonresidential projects, some of the key mandatory CALGreen 2019 standards involve requirements related to bicycle parking, designated parking for clean air vehicles, electric vehicle (EV) charging stations, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, excavated soil and land clearing debris, and commissioning (24 CCR Part 11).

Integrated Energy Policy Report

The CEC is responsible for preparing integrated energy policy reports that identify emerging trends related to energy supply, demand, and conservation; public health and safety; and maintenance of a healthy economy. The CEC's 2018 Integrated Energy Policy Report discusses the state's policy goals of decarbonizing buildings, doubling energy efficiency savings, and increasing flexibility in the electricity grid system to integrate more renewable energy (CEC

2018). Specifically for the decarbonizing of building energy, the goal would be achieved by designing future commercial and residential buildings to have their energy sourced almost entirely from electricity in place of natural gas. Regarding the increase in renewable energy flexibility, the goal would be achieved through increases in energy storage capacity within the state, increases in energy efficiency, and adjusting energy use to the time of day when the most amount of renewable energy is being generated.

State Vehicle Standards

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009–2012 standards resulted in a reduction in approximately 22% of GHG emissions compared to emissions from the 2002 fleet, and the 2013–2016 standards resulted in a reduction of approximately 30% compared to the 2002 fleet.

In 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global-warming gases with requirements for greater numbers of zero-emissions vehicles into a single package of standards called Advanced Clean Cars. By 2025, when the rules would be fully implemented, new automobiles would emit 40% fewer global-warming gases and 75% fewer smog-forming emissions (CARB 2020). However, the U.S. Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration (NHTSA) published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. Since California and 22 other states, as well as the District of Columbia and four cities, filed suit against the EPA and a petition for reconsideration of the rule, the effect of the SAFE Rule on the Advanced Clean Cars program is still to be determined pending the ruling of ongoing litigation.

Although the focus of the state's vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates established in AB 32. As codified in California Government Code Section 65080, SB 375 requires Metropolitan Planning Organizations to include a sustainable communities strategy in their regional transportation plan. The main focus of the sustainable communities strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a bigger effort to address other development issues, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

Local

El Dorado County General Plan

The following goal, objective, and policy from the Public Services and Utilities Element of the General Plan (County of El Dorado 2015), which was updated in December 2015, would apply to energy:

- **Goal 5.6 Gas, Electric, and Other Utility Services.** Sufficient utility service availability consistent with the needs of a growing community.
    - **Objective 5.6.2 Encourage Energy 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.

3.5.3 Significance Criteria

The standards of significance used to evaluate the impacts of the proposed project related to energy are based on Appendix G of the CEQA Guidelines, as listed below. A significant impact would occur if the proposed project would:

- Would the project result in potential significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

3.5.4 Project Impacts

Approach and Methodology

Construction

The California Emission Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate potential project-generated GHG emissions during construction, which were then used to estimate energy consumption. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.2, Air Quality, and Appendices B of this EIR are also applicable for the estimation of construction-related GHG emissions. The estimated GHGs were back-calculated based on carbon content (i.e., kilograms of CO_2 per gallon) in order to estimate fuel usage during project construction. The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon (The Climate Registry 2019).

Operations

During proposed project operations, activities that would consume energy would include electricity and natural gas use for building operations, electricity for water and wastewater conveyance, and petroleum consumption from on-road vehicle trips. Additional assumptions for these sources are described in Impact 3.5-1.

Project Impacts

Impact 3.5-1

The project would not result in potential significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

The short-term construction and long-term operation of the project will require the consumption of energy resources in several forms at the project site and within the project area. Construction and operational energy consumption is evaluated in detail below.

Electricity

Construction Use

Temporary electric power for as-necessary lighting and electronic equipment such as computers inside temporary construction trailers would be provided by PG&E. The electricity used for such activities would be temporary and would have a negligible contribution to the project's overall energy consumption.

Operational Use

The operational phase would require electricity for multiple purposes including building heating and cooling, lighting, appliances, electronics, and for water and wastewater treatment and conveyance. The estimation of operational building energy and water and wastewater was based on the CalEEMod default assumptions for a free standing discount store and parking lot. Table 3.5-1 presents the electricity demand for the project.

Table 3.5-1. Project Operations - Electricity Demand

Project Facility	kWh/Year
Building and Lighting Electricity Demand	
Free Standing Discount Store	123,032.00
Parking Lot	4,340.00
Water/Wastewater Electricity Demand	
Free Standing Discount Store	5,093.31
Total	132,465.31

Source: Appendix B.
Notes: kWh = kilowatt-hour.

For disclosure, in comparison, for El Dorado County, electricity demand in 2019 was 1,227 million kWh (CEC 2020a). The project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains additional energy measures that are applicable to project under CALGreen. Prior to project approval, the applicant would ensure that the project would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. Therefore, due to the limited amount of electricity use for the project compared to El Dorado County consumption, and the inherent increase in efficiency of building code regulations, the project would not result in a wasteful use of energy. Impacts related to operational electricity use would be **less than significant**.

Natural Gas

Construction Use

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the "petroleum" subsection. Any minor amounts of natural gas that may be consumed as a result of project construction would have a negligible contribution to the project's overall energy consumption.

Operational Use

Natural gas consumption during operation would be required for various purposes, including building heating and cooling. For building consumption, default natural gas generation rates in CalEEMod for the project land use and climate zone were used. Table 3.5-2 presents the natural gas demand for the project

Table 3.5-2. Project Operations – Natural Gas Demand

Project Facility	kBtu/year
Free Standing Discount Store	65,611.00

Source: Appendix B
Notes: kBtu = thousand British thermal units.

As shown in Table 3.5-2, the project would consume approximately 65,611 thousand British thermal units (kBtu) per year. For disclosure, in comparison, in 2019, PG&E delivered approximately 35 million therms (3.5 billion kBtu) to El Dorado County (CEC 2020b). The project would also be built in accordance with the current Title 24 standards at the time of construction. Therefore, due to the limited amount of natural gas use for the project, and the inherent increase in efficiency of building code regulations, the project would not result in a wasteful use of energy. Impacts related to operational natural gas use would be **less than significant**.

Petroleum

Construction Use

Heavy-duty construction equipment associated with construction activities would rely on diesel fuel, as would haul and vendor trucks involved in the soil export from, and delivery of materials to, the project site. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered light-duty vehicles.

Heavy-duty construction equipment of various types would be used during each phase of project construction. Appendix C lists the assumed equipment usage for each phase of construction. The project's construction equipment is estimated to operate a total combined 6,032 hours based on CalEEMod defaults assumptions.

Fuel consumption from construction equipment was estimated by converting the total CO_2 emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon (The Climate Registry 2019). The estimated diesel fuel usage from construction equipment is shown in Table 3.5-3.

Table 3.5-3. Construction Equipment Diesel Demand

Phase	Pieces of Equipment	Equipment CO_2 (MT)	Kg CO_2/Gallon	Gallons
Site Preparation	3	1.51	10.21	148.16
Grading	3	6.19	10.21	606.74
Building Construction	7	100.76	10.21	9,868.44
Paving	5	3.53	10.21	345.69
Architectural Coating	1	0.77	10.21	75.02
			Total	**11,044.05**

Sources: Pieces of equipment and equipment CO_2 (Appendix B); kg CO_2/Gallon (The Climate Registry 2019).
Notes: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram.

Fuel estimates for total worker vehicles, haul truck, and vendor truck fuel consumption are provided in Table 3.5-4.

Table 3.5-4. Construction Worker, Vendor, and Haul Truck Petroleum Demand

Phase	Trips	Vehicle MT CO_2	Kg CO_2/ Gallon	Gallons
Worker Vehicles (Gasoline)				
Site Preparation	16	0.09	8.78	9.89
Grading	80	0.43	8.78	49.43
Building Construction	888	4.77	8.78	542.84
Paving	78	0.41	8.78	46.56
Architectural Coating	12	0.06	8.78	7.16
			Total	**655.88**
Haul Trucks (Diesel)				
Site Preparation	0	0.00	10.21	0.00
Grading	50	1.94	10.21	189.94
Building Construction	0	0.00	10.21	0.00
Paving	0	0.00	10.21	0.00
Architectural Coating	0	0.00	10.21	0.00
			Total	**189.94**
Vendor Trucks (Diesel)				
Site Preparation	0	0.00	10.21	0.00
Grading	0	0.00	10.21	0.00
Building Construction	444	5.18	10.21	506.91
Paving	0	0.00	10.21	0.00
Architectural Coating	0	0.00	10.21	0.00
			Total	**506.91**

Sources: Trips and vehicle CO_2 (Appendix B); kg CO_2/Gallon (The Climate Registry 2019).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

In summary, construction of the project is conservatively anticipated to consume 12,397 gallons of petroleum over a period of approximately 135 days. For disclosure, by comparison, approximately 11 billion gallons of petroleum would be consumed in California over the course of the project's construction phase, based on the California daily

petroleum consumption estimate of approximately 78.6 million gallons per day (EIA 2020d). Overall, because petroleum use during construction would be temporary, and would not be wasteful or inefficient, impacts would be **less than significant**.

Operational Use

The fuel consumption resulting from the project's operational phase would be attributable to on-road vehicles traveling to and from the project site. Petroleum fuel consumption associated with motor vehicles during operation is a function of VMT. As shown in Appendix B, the annual VMT attributable to the project is expected to be 1,094,327 VMT per year, based on CalEEMod defaults for a rural 9,100 square-foot free standing discount store and accounting for 34% pass-by trips per the *Traffic Impact Analysis* (KD Anderson 2019). Similar to construction worker and truck trips, fuel consumption for operation was estimated by converting the total CO_2 emissions to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Based on the countywide proportion of gasoline and diesel on-road vehicle-generated CO_2 in EMFAC2014 and the CalEEMod default fleet mix, the vehicles associated with project operations were assumed to be approximately 94% gasoline powered and 6% diesel powered. The estimated fuel use from project operational mobile sources is shown in Table 3.5-5.

Table 3.5-5. Project Operations - Petroleum Consumption

Fuel	Vehicle MT CO_2	kg CO_2/Gallon[a]	Gallons
Gasoline	392.43	8.78	44,696.00
Diesel	24.96	10.21	2,444.95
		Total	**47,140.95**

Source: Appendix B.
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

As depicted in Table 3.5-5, mobile sources from the project would result in approximately 47,141 gallons of petroleum fuel usage per year. By comparison, California as a whole consumes approximately 29 billion gallons of petroleum per year (EIA 2020d). Notably, over the lifetime of the project, the fuel efficiency of the vehicles being used by the employees and customers is expected to increase based on numerous regulations in place that require and encourage increased fuel efficiency. As such, the amount of petroleum consumed as a result of vehicular trips to and from the project site during operation would decrease over time. Although the project would increase petroleum use during operation as a result of employees and customers traveling to and from the project site, the use would be a small fraction of the statewide use and, due to efficiency increases, would diminish over time. Given these considerations, petroleum consumption associated with the project would not be considered inefficient or wasteful and would result in a less-than-significant impact.

Based on the analysis above, the consumption of energy resources (including electricity, natural gas, and petroleum) during project construction and operation would not be considered inefficient or wasteful and would result in a **less-than-significant impact**.

Impact 3.5-2

The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential

buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically (every 3 years) to incorporate and consider new energy efficiency technologies and methodologies. Title 24 also includes Part 11, CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, as well as schools and hospitals. The proposed project would meet Title 24 Part 6 and CALGreen standards to reduce energy demand and increase energy efficiency. Overall, the project would not conflict with existing energy standards and regulations; therefore, impacts during construction and operation of the project would be **less than significant**.

3.5.5 Cumulative Impacts

The cumulative projects would involve minor construction, would not increase service population, would follow the most current Title 24 requirements, and would require minor amounts of electricity for operation. No cumulative impacts to energy efficiency would occur.

3.5.6 Mitigation Measures

No mitigation measures are required.

3.5.7 References

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3.6 Geology and Soils

This section describes the geology and soils setting on and near the proposed project site; discusses the relevant federal, State, and regional regulatory considerations; and evaluates the potential impacts of the project related to ground shaking, unstable soils, septic systems, and paleontological resources.

Public comments related to geology and soils that were received in response to circulation of the Notice of Preparation (Appendix B) and the public scoping meeting for the proposed project included concerns that the site soils cannot support a septic system.

Sources for information regarding site specific geologic and soil conditions include the Preliminary Geotechnical Interpretive Report prepared for the project site by Earth Strata Geotechnical Services in 2019 (included in Appendix G of this EIR).

3.6.1 Environmental Setting

Regional Geology and Topography

The project site is located in the Sierra Nevada Province of California. The Sierra Nevada Province is located in the east central portion of the state. The province is characterized by a northwest trending mountain range that stretches from Bakersfield to Lassen Peak. It includes the Sierra Nevada mountain range and a broad belt of the western foothills. Due to a lesser predominance of alluvial cover, the Sierra Nevada Province is characterized by high levels of bedrock unit exposure, and relatively low levels of alluvium cover.[1] The topography ranges from 400 to 14,496 feet above mean sea level with many peaks on the order of 9,000 to 12,000 feet above mean sea level. The rocks that make up the Sierra Nevada Province primarily consist of metasedimentary basement rocks[2] intruded by the Sierra Nevada batholith.[3]

Topography

The project site and surrounding areas are gently sloped. Elevations at the project site range from approximately 1525 feet above mean sea level along the western boundary to 1555 feet above mean sea level along the eastern boundary.

Local Geologic and Soil Conditions

The project is underlain primarily by artificial fill and bedrock. The Preliminary Geotechnical Interpretive Report (Appendix G) noted that undocumented artificial fill materials were encountered throughout the site at depths of up to about 2 feet below the ground surface. The artificial fill materials are generally inconsistent, poorly consolidated clayey sands and clays. Mesozoic metasedimentary rocks are located beneath the artificial fill materials. Generally, the upper 1 to 3 feet of this unit are very weathered and less hard.

1 Alluvium is san, silt, clay, gravel, or other matter deposited by flowing water, as in a riverbed, floodplain, delta, or alluvial fan.
2 Basement rocks are those located below sedimentary rock cover, and metasedimentary rock is a rock that was first formed through the deposition and solidification of sediment, and then subsequently buried and subjected to high pressures and temperatures, causing the rock to recrystallize.
3 A batholith is a large mas of volcanic rock larger than 40 square miles that form from cooled magma deep in the earth's crust.

Geologic and Soil Hazards

Regional Faulting and Seismic Hazards

The potential for ground shaking in the western foothills of the Sierra Nevada, where the project site is located, is low (Branum et al. 2016). The nearest fault to the project site is the Foothill fault, which run north to south approximately 2 miles west of the project site (U.S. Geological Survey 2020). Although located in close proximity to the project site, this fault is not considered an active fault, which is defined by the State of California has having surface displacement within the past 11,000 years. The nearest active fault to the project site is the West-Tahoe Dollar Point fault, located approximately 50 miles to the west (U.S. Geological Survey 2020). The project site is not located within an Alquist-Priolo Earthquake Fault Zone (California Department of Conservation 2020).

Liquefaction, Lateral Spreading, and Seismically Induced Settlement

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Because saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. The potential for liquefaction-induced ground failure (e.g., loss of bearing strength, ground fissures, and sand boils) depends on the thickness of the liquefiable soil layer relative to the thickness of the overlying non-liquefiable material.

Lateral spreading is a form of horizontal displacement of soil toward an open channel or other "free" face, such as an excavation boundary. In a lateral spread failure, a layer of ground at the surface is carried on an underlying layer of liquefied material over a nearly flat surface toward a river channel or other bank. The lateral spreading hazard tends to mirror the liquefaction hazard for a site, assuming a free face is located nearby. Seismically induced settlement occurs when loose sandy soils become denser when subjected to shaking during an earthquake.

Potential impacts from liquefaction, lateral spreading, and seismically induced settlement include loss of bearing capacity, differential settlement, lateral movements, and surface manifestation such as sand boils. Based on the dense nature of the bedrock underlying the project site, the Preliminary Geotechnical Interpretive Report (Appendix G) concluded that the potential for seismically induced liquefaction, lateral spreading, and settlement is very low.

Expansive Soils

Expansive soils are those that greatly increase in volume when they absorb water and shrink when they dry out. When buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. This movement may result in cracking foundations, distortion of structures, and warping of doors and windows. Soil testing conducted as part of the Preliminary Geotechnical Interpretive Report (Appendix G) found that soils on the project site exhibit very high expansion potential.

Paleontological Resources

Paleontological resources include fossilized remains or traces of organisms, including plants, vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and microscopic plants and animals (microfossils), including their imprints, from a previous geological period. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 years) (Society of Vertebrate Paleontology 2010).

The project site is underlain by artificial fill and metasedimentary rocks. Artificial fill has low potential to produce scientifically significant paleontological resources due to a lack of original stratigraphic context. Metasedimentary bedrock in this area is characterized as mélange, a mixed up geological terrane that has undergone strong metamorphism (Wagner et al. 1981). Therefore, metasedimentary rock has very low potential to contain paleontological resources.

3.6.2 Regulatory Setting

Federal Regulations

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) and creation of the National Earthquake Hazards Reduction Program (NEHRP) established a long-term earthquake risk-reduction program to better understand, predict, and mitigate risks associated with seismic events. The following four federal agencies are responsible for coordinating activities under NEHRP: USGS, National Science Foundation (NSF), Federal Emergency Management Agency (FEMA), and National Institute of Standards and Technology (NIST). Since its inception, NEHRP has shifted its focus from earthquake prediction to hazard reduction. The current program objectives (NEHRP 2009) are to:

1. Develop effective measures to reduce earthquake hazards;
2. Promote the adoption of earthquake hazard reduction activities by federal, state, and local governments; national building standards and model building code organizations; engineers; architects; building owners; and others who play a role in planning and constructing buildings, bridges, structures, and critical infrastructure or “lifelines”;
3. Improve the basic understanding of earthquakes and their effects on people and infrastructure through interdisciplinary research involving engineering; natural sciences; and social, economic, and decision sciences; and
4. Develop and maintain the USGS seismic monitoring system (Advanced National Seismic System); the NSF-funded project aimed at improving materials, designs, and construction techniques (George E. Brown Jr. Network for Earthquake Engineering Simulation); and the global earthquake monitoring network (Global Seismic Network).

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

State Regulations

Alquist–Priolo Earthquake Fault Zoning Act

The Alquist–Priolo Earthquake Fault Zoning Act (Public Resources Code Section 2621 et seq.) was passed to reduce the risk to life and property from surface faulting in California. The Alquist–Priolo Act prohibits construction of most types of structures intended for human occupancy on the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as “active,” and establishes a process for reviewing building proposals in

and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." Before a project can be permitted, cities and counties are required to have a geologic investigation conducted to demonstrate that the proposed buildings would not be constructed across active faults.

Historical seismic activity and fault and seismic hazards mapping in the project vicinity indicate that the area has relatively low potential for seismic activity (El Dorado County 2003). No active faults have been mapped in the project area, and none of the known faults have been designated as an Alquist-Priolo Earthquake Fault Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (Public Resources Code Sections 2690–2699.6) establishes statewide minimum public safety standards for mitigation of earthquake hazards. While the Alquist–Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its 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 seismic hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. In addition, the act addresses not only seismically induced hazards but also expansive soils, settlement, and slope stability.

Mapping and other information generated pursuant to the SHMA is to be made available to local governments for planning and development purposes. The State requires: (1) local governments to incorporate site-specific geotechnical hazard investigations and associated hazard mitigation, as part of the local construction permit approval process; and (2) the agent for a property seller or the seller if acting without an agent, must disclose to any prospective buyer if the property is located within a Seismic Hazard Zone. Under the Seismic Hazards Mapping Act, cities and counties may withhold the development permits for a site within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Building Standards Code

The state regulations protecting structures from most geo-seismic hazards are contained in the California Building Code (CBC; Cal. Code Regs. tit. 24, Part 2), which is updated on a triennial basis. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every public and private building in the state or any appurtenances connected or attached to such buildings or structure. The 2019 CBC, effective January 1, 2020, is based on the current (2018) International Building Code.

The 2019 CBC includes structural design requirements governing seismically resistant construction, including (but not limited to) factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building design. Included in the CBC are requirements for foundation and soil investigations; excavation, grading, and fill; damp-proofing and water-proofing; allowable load-bearing values of soils; the design of foundation walls, retaining walls, embedded posts and poles and foundations; and design of shallow foundations and deep foundations. The CBC also includes requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes.

California Public Resources Code

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under state laws and regulations. Public Resources Code, Chapter 1.7, sections 5097.5 and 30244 regulate removal of paleontological resources from state lands, define unauthorized removal of fossil resources as a misdemeanor, and require mitigation of disturbed sites. Professional standards of practice, such as those adopted by the Society of Vertebrate Paleontology Conformable Impact Mitigation Guidelines Committee (2010), offer additional guidance for the control and remediation of adverse effects on significant paleontological resources.

Local Regulations

El Dorado County Code

Grading Erosion and Sediment Control

Chapter 110.14 (Grading, Erosion, and Sediment Control) of the County Code regulates grading within unincorporated areas of El Dorado County in order to protect the public and avoid pollution of watercourses. Chapter 110.14 enforces the procedures in Volume III: Grading, Erosion and Sediment Control of the Design Improvement Standards Manual (Grading Manual) (El Dorado County 2007). The Grading Manual includes standards for geotechnical, geologic, drainage, and soil studies that are required for development projects.

The grading plan must be prepared by a professional civil engineer. An erosion and sediment control plan must also be submitted whenever:

1. The graded portion of the site includes more than ten thousand (10,000) square feet of area for a non-agricultural grading project or more than one acre of area for an agricultural grading project.
2. There is a significant risk that more than two thousand five hundred (2,500) square feet will be unprotected or inadequately protected from erosion during any portion of the rainy season.
3. Grading will occur within twenty feet of any pre-existing watercourse.
4. Grading would occur within the 100-year event flood plain.
5. The Director determines that the grading could potentially result in significant erosion or sediment discharge.

The erosion and sediment control plan must be designed to prevent increased discharge of sediment at all stages of grading and development, from initial disturbance of the ground to project completion, and shall be consistent with all local, State, and federal rules and regulations. It must include an effective revegetation program to stabilize all disturbed areas that will not be otherwise protected.

Onsite Wastewater Treatment Systems

Chapter 110.32 (Onsite Wastewater Treatment Systems) of the County Code establishes standards for the siting, design, installation, operation, and maintenance of onsite wastewater treatment systems (also known as “septic systems”) in the County. These standards are consistent with the water quality control policy for siting, design, operation, and maintenance of onsite wastewater treatment systems adopted by the State Water Resources Control Board (SWRCB) pursuant to SWRCB Resolution 2012-0032. These standards are intended to prevent the creation of health hazards and nuisance conditions, and to protect surface water and groundwater quality.

The El Dorado County Environmental Management Division administers and enforces requirements for septic systems. Chapter 110.32 enforces the El Dorado County Local Agency Management Plan (LAMP) (El Dorado County 2018a) and the Standards for the Site Evaluation, Design, and Construction of Onsite Wastewater Treatment Systems (OWTS Manual) (El Dorado County 2018b). A LAMP is a customized septic systems management program developed by local agencies to address the soil and groundwater conditions specific to the local jurisdiction. Local agencies can review and approve septic systems after approval of the LAMP by the local Regional Water Quality Control Board (RWQCB). The OWTS Manual contains standards and specifications for the siting, design, installation, operation, and maintenance of septic systems, including the prepared design standards for septic tanks, drain lines, disposal fields, and any other facilities associated with the septic system. The county building permit process requires the Environmental Management Division input a key stages of septic system design and installation, including but not limited to, site evaluation, percolation testing, and septic system installation.

El Dorado County General Plan

The following goals, objectives, and policies related to geology and soils are established in the Public Health, Safety, and Noise Element of the El Dorado County General Plan (El Dorado County 2019) and are applicable to the project.

- **Goal 6.3:** Minimize the threat to life and property from seismic and geologic hazards.
  - **Objective 6.3.2:** Continue to evaluate seismic related hazards such as liquefaction, landslides, and avalanche, particularly in the Tahoe Basin.
    - **Policy 6.3.2.5:** Applications for development of habitable structures shall be reviewed for potential hazards associated with steep or unstable slopes, areas susceptible to high erosion, and avalanche risk. Geotechnical studies shall be required when development may be subject to geological hazards. If hazards are identified, applicants shall be required to mitigate or avoid identified hazards as a condition of approval. If no mitigation is feasible, the project will not be approved.

The following goals, objectives, and policies related to geology and soils are established in the Conservation and Open Space Element of the El Dorado County General Plan (El Dorado County 2019)and are applicable to the project.

- **Goal 7.1:** Protect the County's soil resources
  - **Objective 7.1.2:** Minimize soil erosion and sedimentation
    - **Policy 7.1.2.2:** Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.
    - **Policy 7.1.2.3:** Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.
    - **Policy 7.1.2.3:** Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.

3.6.3 Significance Criteria

The significance criteria used to evaluate the project impacts are based on Appendix G of the CEQA Guidelines. A significant impact related to geology and soils would occur if the proposed project would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  i. 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 Division of Mines and Geology Special Publication 42.
  ii. Strong seismic ground shaking
  iii. Seismic-related ground failure, including liquefaction
  iv. 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), creating substantial direct or indirect risks to life or property.
- 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.
- Directly or indirectly destroy a unique paleontological resources or site or unique geologic feature.

As described in the Initial Study (Appendix A) and documented in the Preliminary Geotechnical Interpretive Report (Appendix G), the proposed project would not expose people or structures to potential substantial adverse effects from rupture of an earthquake fault, liquefaction, or landslides. These topics are not discussed further in this EIR.

3.6.4 Project Impacts

Methodology

The Preliminary Geotechnical Interpretive Report (Appendix G) and project plans were reviewed to determine if the project may have a significant impact related to geology, soils, or paleontological resources. In determining the level of significance, this analysis assumes that the proposed project would comply with relevant state and local ordinances and regulations, as well as the general plan policies presented above. Note that, under CEQA, the effects of the existing environment upon a proposed project is not a *project* impact. A project impact occurs when direct or indirect changes to the environment would occur as a result of implementation of the project.

Project Impacts

Impact 3.6-1

The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

As described under Regional Faulting and Seismic Hazards, the potential for seismic ground shaking in the project area is low. However, there is a nearby inactive fault (i.e., the Foothill fault), and faults in the Lake Tahoe region

with the potential to generate ground shaking at the project site. In the event of an earthquake, ground shaking could expose the proposed retail commercial building to varying levels of damage depending on distance to causative fault, intensity of the earthquake, the character of underlying soils, and depth to groundwater.

The Preliminary Geotechnical Interpretive Report (Appendix G) provides design recommendations for the proposed project that are consistent with the seismic design standards of the CBC. The El Dorado County building permit process requires geotechnical report recommendations to be incorporated into the project design, thereby ensuring that the proposed retail commercial building would be seismically resistant. Therefore, compliance with the CBC and building permit acquisition process would reduce to the potential of the proposed project to expose people or structures substantial adverse effects from seismic ground shaking to **less than significant.**

Impact 3.6-2

The project would not result in substantial soil erosion or the loss of topsoil.

Demolition and construction activities associated with the project, including vegetation removal, excavations, and grading, would temporarily expose underlying soils, thereby increasing the potential to cause wind- and water-induced soil erosion. The proposed project would comply with Chapter 110.14 (Grading, Erosion, and Sediment Control) of the County Code, which requires project that grade more than 250 cubic yards to implement an erosion and sediment control plan that specifies best management practices to prevent increased discharge of sediment at all stages of grading and development. Furthermore, the proposed project would disturb more than 1 acre and therefore would be subject to the requirements of the Stormwater Construction General Permit (described in detail under Section V.J, Hydrology and Water Quality of this EIR), which requires projects to implement a Stormwater Pollution Prevention Plan (SWPPP) that includes sediment and erosion control measures. Therefore, compliance with local and State regulations would reduce the potential of the proposed project to result in substantial soil erosion to **less than significant.**

Impact 3.6-3

The project would not 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 lateral spreading, liquefaction, or seismically induced settlement.

As discussed in the Environmental Setting, the project site consists of shallow fill atop metamorphic rock. Based on the dense nature of the bedrock underlying the project site, the Preliminary Geotechnical Interpretive Report (Appendix G) concluded that the potential for liquefaction, lateral spreading, and seismically induced settlement is very low. The report provides recommendations for the foundation of the proposed retail commercial building that includes the removal of low density, compressible artificial fill until firm competent bedrock is encountered, and that provides recommendations for the placement of compacted fill. This would further reduce the potential risks related to unstable soils.

The El Dorado County building permit process requires geotechnical report recommendations to be incorporated into the project design, thereby ensuring that the proposed building would be resistant to soil instability. Therefore, compliance with the CBC and building permit acquisition process would reduce to the potential of the proposed project to expose people or structures substantial adverse effects from unstable soils to **less than significant**.

Impact 3.6-4

The project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) but would not create substantial risks to life or property.

Expansive soils are those that greatly increase in volume when they absorb water and shrink when they dry out. When buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. This movement may result in cracking foundations, distortion of structures, and warping of doors and windows.

As discussed in the Environmental Setting, the Preliminary Geotechnical Interpretive Report (Appendix G) found that soils on the project site exhibit very high expansion potential. The report provides recommendations for the foundation of the proposed retail commercial building that addresses the expansive soils on the project site. The recommendations include the removal of low density, compressible artificial fill until firm competent bedrock is encountered, the placement of compacted fill, and presoaking slab subgrades prior to the placement of the post tensioned slab foundation.

The El Dorado County building permit process requires geotechnical report recommendations to be incorporated into the project design, thereby ensuring that the proposed building would be resistant to expansive soils. Therefore, compliance with the CBC and building permit acquisition process would reduce to the potential of the proposed project to expose people or structures substantial adverse effects from expansive soils to **less than significant**.

Impact 3.6-5

The project would not 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.

As described in Chapter 2, Project Description, a review of the project site by the El Dorado County Environmental Management Department found that there is 7 feet of available soil depth for the leech field (Zimbelman 2020). The El Dorado County Environmental Management Department has indicated that the treatment system for the project site must be certified by the National Sanitation Foundation. Based on the soil properties, the project proposes to develop a JET J-1000 National Sanitation Foundation-certified septic system, with a septic field located northeast of the proposed building.

The final design of the proposed septic system would undergo full review in accordance with Chapter 110.32 (Onsite Wastewater Treatment Systems) of the El Dorado County Code and with the associated LAMP and OWTS Manual (El Dorado County 2018a and 2018b). As part of the County's permitting and inspection process, a site evaluation that includes a percolation rate test and soil profile test was conducted to ensure that the septic system proposed is appropriate for the project site. Based on the results of the testing, the El Dorado County Environmental Management Department review of the proposed septic system design indicates that the project must show that the system would provide 889 square feet of treatment area in order to accommodate a daily effluent load of 800 gallons per day (Vyverberg 2020). Compliance with existing regulations pertaining to septic systems would reduce the potential of the proposed project to develop a septic system in soils incapable of adequately supporting such a system to **less than significant**.

Impact 3.6-6

The project would not directly or indirectly destroy a unique paleontological resources or site or unique geologic feature.

The site is gently sloped and does not contain any unique geologic features. The potential to disturb paleontological resources during project construction depends on the types of geologic units (and their fossil-bearing characteristics) that would be encountered. As discussed in the Environmental Setting, both the artificial fill and metamorphic bedrock underlying the project site have very low potential to contain paleontological resources. Consequently, the potential of the proposed project to destroy a unique paleontological resource is **less than significant**.

3.6.5 Cumulative Impacts

Geologic impacts do not extend far beyond a project's boundaries because geologic and soils conditions can vary widely over a short distance and therefore potential impacts are typically confined to discrete spatial locations and do not combine to create a significant cumulative impact. The exception to this generalization would occur where the effects from the development of the proposed project could affect the geology of an off-site location (e.g., construction would destabilize an area prone to landslides). There are no geologic or soils features on or near the location of the proposed project and the two nearby cumulative projects (described in Section 3.0) that could be affected in a manner that would affect an off-site location. Therefore, the potential cumulative impact related to geologic hazards would be **less than significant**.

The geographic scope of cumulative impacts to paleontological resources includes other projects within El Dorado County that would disturb geologic and soils materials similar to the project site (i.e., artificial fill over metamorphic bedrock. Because fill and metamorphic bedrock have a very low potential to contain paleontological resources, the potential for cumulative impact related to paleontological resources would be **less than significant**.

3.6.6 Mitigation Measures

No mitigation measures are required.

3.6.7 References

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3.7 Greenhouse Gases

This section describes the environmental setting for greenhouse gas (GHG) conditions, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant impacts related to implementation of the of the proposed Cool Dollar General (proposed project).

No public comments related to GHGs were received in response to circulation of the Notice of Preparation (Appendix A) or the public scoping meeting for the proposed project.

3.7.1 Environmental Setting

Climate Change Overview

Climate change refers to any significant change in measures of climate—such as temperature, precipitation, or wind patterns—lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017).

The greenhouse effect is the trapping and buildup of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a three-part process as follows: (1) short-wave radiation emitted by the Sun is absorbed by the Earth, (2) the Earth emits a portion of this energy in the form of long-wave radiation, and (3) GHGs in the upper atmosphere absorb this long-wave radiation and emit it both into space and back toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. However, recent climate changes, in particular the warming observed over the past century, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of warming since the mid-twentieth century, and are the most significant driver of observed climate change (IPCC 2013; EPA 2017). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system.

Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g), for purposes of administering many of the State's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO_2), methane (CH_4),

nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride. (See also Cal. Code Regs. tit. 14, § 15364.5.)[1] Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are the predominant GHGs emitted from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as HFCs, PFCs, and SF_6, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.[2]

Carbon Dioxide

CO_2 is a naturally occurring gas and a by-product of human activities; it is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO_2 include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO_2 include the combustion of fuels such as coal, oil, natural gas, and wood, and changes in land use.

Methane

CH_4 is produced through both natural and human activities. CH_4 is a flammable gas and is the main component of natural gas. CH_4 is produced through anaerobic (i.e., without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide

N_2O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N_2O. Sources of N_2O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N_2O as a propellant (such as in rockets, racecars, and aerosol sprays).

Fluorinated Gases

Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone (O_3)-depleting substances (e.g., chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to O_3-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.

[1] Climate-forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in California Health and Safety Code, Section 38505. Impacts associated with other climate-forcing substances are not evaluated herein.

[2] The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change's Second Assessment Report and Fourth Assessment Report (IPCC 1995, 2007), CARB's Glossary of Terms Used in GHG Inventories (CARB 2020a), and EPA's Glossary of Climate Change Terms (EPA 2016).

- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced, along with HFCs, as alternatives to the O_3-depleting substances. The two main sources of PFCs are primarily aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** SF_6 is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF_6 is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** Nitrogen trifluoride is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

Chlorofluorocarbons

CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere), and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric O_3.

Hydrochlorofluorocarbons

HCFCs are a large group of compounds whose structure is very close to that of CFCs—containing fluorine, chlorine, and carbon atoms—but also including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use in general is being phased out.

Black Carbon

Black carbon is a component of fine particulate matter ($PM_{2.5}$), which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation; influences cloud formation; and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived substance that varies spatially, which makes it difficult to quantify its global warming potential (GWP). Diesel particulate matter emissions are a major source of black carbon and are toxic air contaminants that have been regulated and controlled in California for several decades to protect public health. In relation to declining diesel particulate matter as a result of the California Air Resources Board's (CARB's) regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have decreased by 70% between 1990 and 2010, with 95% control expected by 2020 (CARB 2014).

Water Vapor

The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

Ozone

Tropospheric O_3, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric O_3, which is created by the interaction between solar ultraviolet radiation and molecular oxygen, plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O_3, which occurs due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

Aerosols

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017). The Intergovernmental Panel on Climate Change (IPCC) developed the GWP concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons of CO_2 equivalent (MT CO_2e).

The current version of the California Emissions Estimator Model (CalEEMod) (Version 2016.3.2) assumes that the GWP for CH_4 is 25 (so emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the proposed project.

Greenhouse Gas Inventories and Climate Change Conditions

GHG Inventories

Global Inventory. Anthropogenic GHG emissions worldwide in 2018 (the most recent year for which data is available) totaled approximately 51,800 million metric tons (MMT) of CO_2e, excluding land use change and forestry (PBL 2019). Six countries—China, the United States, the Russian Federation, India, Japan, and Brazil—and the European community accounted for approximately 65% of the total global emissions, or approximately 33,700 MMT CO_2e (PBL 2019). Table 3.7-1 presents the top GHG-emissions-producing countries.

Table 3.7-1. Six Top Greenhouse-Gas-Producer Countries and the European Union

Emitting Countries (listed in order of emissions)	Greenhouse Gas Emissions (MMT CO_2e)
China	13,600
United States	6,700
European Union	4,500

Table 3.7-1. Six Top Greenhouse-Gas-Producer Countries and the European Union

Emitting Countries (listed in order of emissions)	Greenhouse Gas Emissions (MMT CO_2e)
India	3,700
Russian Federation	2,500
Japan	1,400
Brazil	1,300
Total	**33,700**

Source: PBL 2019.
Note: MMT CO_2e = million metric tons of carbon dioxide equivalent.

National Inventory. Per the Environmental Protection Agency (EPA) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2018 (EPA 2020), total United States GHG emissions were approximately 6,676.6 MMT CO_2e in 2018 (EPA 2020). The primary GHG emitted by human activities in the United States was CO_2, which represented approximately 81.3% of total GHG emissions (5,428.1 MMT CO_2e). The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 92.8% of CO_2 emissions in 2018 (5,031.8 MMT CO_2e). Relative to 1990, gross United States GHG emissions in 2018 are higher by 3.7%, down from a high of 15.2% above 1990 levels in 2007. GHG emissions decreased from 2017 to 2018 by 2.9% (188.4 MMT CO_2e) and overall, net emissions in 2018 were 10.2% below 2005 levels (EPA 2020).

State Inventory. According to California's 2000–2018 GHG emissions inventory (2020 edition), California emitted 425 MMT CO_2e in 2018, including emissions resulting from out-of-state electrical generation (CARB 2020b). The sources of GHG emissions in California include transportation, industry, electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high GWP substances, and recycling and waste. The California GHG emission source categories and their relative contributions in 2018 are presented in Table 3.7-2.

Table 3.7-2. Greenhouse Gas Emissions Sources in California

Source Category	Annual GHG Emissions (MMT CO_2e)[a]	Percent of Total[a]
Transportation	169.5	40%
Industrial	89.18	21%
Electric power[b]	63.11	15%
Commercial and Residential	41.37	10%
Agriculture	32.57	8%
High global-warming potential substances	20.46	5%
Recycling and waste	9.09	2%
Totals	**425.28**	**100%**

Source: CARB 2020b.
Notes: GHG = greenhouse gas; MMT CO_2e = million metric tons of carbon dioxide equivalent; GWP = global warming potential. Emissions reflect 2017 California GHG inventory.
[a] Totals may not sum due to rounding.
[b] Includes emissions associated with imported electricity.

Between 2000 and 2018, per-capita GHG emissions in California have dropped from a peak of 14.1 MT per person in 2001 to 10.7 MT per person in 2018, representing a 24% decrease. In addition, total GHG emissions in 2018 were approximately 1 MMT CO_2e higher than 2017 emissions (CARB 2020b).

Local Inventories. No official GHG inventory has been completed for El Dorado County.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 *Intergovernmental Panel on Climate Change Synthesis Report* (IPCC 2014) indicated that warming of the climate system is unequivocal and, since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, and rising sea levels (IPCC 2014).

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 Intergovernmental Panel on Climate Change Synthesis Report (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, rising sea levels, and ocean acidification (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. The primary effect of global climate change has been a rise in average global tropospheric temperature. Reflecting the long-term warming trend since pre-industrial times, observed global mean surface temperature for the decade 2006–2015 was 0.87°C (likely between 0.75°C and 0.99°C) higher than the average over the 1850–1900 period (IPCC 2018). Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Human activities are estimated to have caused approximately 1.0°C (1.8 degrees Fahrenheit (°F)) of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C (1.4°F to 2.2°F) (IPCC 2018). Global warming is likely to reach 1.5°C (2.7°F) between 2030 and 2052 if it continues to increase at the current rate (IPCC 2018).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment identified various indicators of climate change in California, which are scientifically-based measurements that track trends in various aspects of climate change. Many indicators reveal discernible evidence that climate change is occurring in California and is having significant, measurable impacts in the state. Changes in the state's climate have been observed including an increase in annual average air temperature with record warmth from 2012 to 2016, more frequent extreme heat events, more extreme drought, a decline in winter chill, an increase in cooling degree days and a decrease in heating degree days, and an increase in variability of statewide precipitation (OEHHA 2018).

Warming temperatures and changing precipitation patterns have altered California's physical systems – the ocean, lakes, rivers and snowpack – upon which the state depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the state's annual water supply. Impacts of climate on physical systems have been observed such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters (OEHHA 2018).

Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed including climate change impacts on terrestrial, marine, and freshwater ecosystems. As with global observations, species responses include those consistent with warming: elevational or latitudinal shifts in range, changes in the timing of key plant and animal life cycle events, and changes in the abundance of species and in community composition. Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses a threat to public health as warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California as well as the variability of heat-related deaths and illnesses. In addition, since 1950, the area burned by wildfires each year has been increasing.

The California Natural Resources Agency (CNRA) has released four California Climate Change Assessments (2006, 2009, 2012, and 2018), which have addressed the following: acceleration of warming across the state, more intense and frequent heat waves, greater riverine flows, accelerating sea level rise, more intense and frequent drought, more severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming. To address local and regional governments need for information to support action in their communities, the Fourth Assessment (2018) includes reports for nine regions of the state, including the Sierra Nevada region, where the proposed project is located. Key projected climate changes for the Sierra Nevada region include the following (CNRA 2018a):

- Climate change is already underway in the Sierra Nevada region, affecting heat and precipitation extremes, with long-term warming trends, declining snowpacks, and changes in streamflow timing. These ongoing trends foreshadow larger changes to come. By the end of the 21st century, temperatures in the Sierra Nevada are projected to warm by 6 to 9ºF on average, enough to raise the transition from rain to snow during a storm by about 1,500 to 3,000 feet. In contrast, future precipitation is predicted to vary less than temperature; longterm changes may be no more than ±10-15% of current totals. However, precipitation extremes (both as deluge and drought) are expected to increase markedly under climate change. These climatic changes will depend on and reflect many factors, including elevation within the mountain range, with quicker warming trends and precipitation changes at highest elevations.
- As a result of projected warming, Sierra Nevada snowpacks will very likely be eradicated below about 6,000 feet elevation and will be much reduced by more than 60% across nearly all of the range. Notably, though, recent studies suggest that even these snowpack-loss projections may be underestimates, due to feedback loops with warming trends causing snow cover losses, and snow cover losses resulting in warmer land surfaces and thus enhanced warming trends in turn.
- The loss of snowpack will combine to dry soils 15% to 40% below historical norms, depending on elevations. The result will be reduced soil and vegetation moisture; changes in rivers and lakes; and ultimately stresses on flora and fauna. Loss of snowpack and overall drying will lead to increased winter streamflows and floods, and to (largely compensating) reductions in spring and summer streamflows.

The Fourth Climate Change Assessment for the Sierra Nevada Region also provides a framework for adaptation that considers several major vulnerabilities and arenas for climate-change adaptation in the Sierra Nevada. First, a recommended strategy for developing adaptation options includes (1) understanding historical trends, (2) identifying vulnerabilities, (3) developing strategies, and (4) monitoring results. The three main categories of focus are ecosystems and wildlife, water resources, and human communities. Second, not all adaptations seek to completely avoid climate-change impacts. Four categories of adaptation, in order of increasing intervention, are efforts to support resistance (trying to ward off climate-change impacts), resilience (increasing the capacity of systems to absorb and bounce back from climate changes), orderly response (assisting transitions to avoid at least

the most undesired outcomes), and realignment (facilitating major transitions to the most desirable new conditions) to the new climate-changed environment that is coming.

3.7.2 Regulatory Framework

International

United Nations Framework Convention on Climate Change, Kyoto Protocol, and Paris Agreement

In 1992, numerous countries joined an international treaty, the United Nations Framework Convention on Climate Change (UNFCCC), as a framework for international cooperation to combat climate change by limiting average global temperature increases and the resulting climate change, and coping with associated impacts. Currently, there are 197 Parties (196 States and 1 regional economic integration organization) in the UNFCCC (UNFCCC 2019).

By 1995, countries launched negotiations to strengthen the global response to climate change, and, two years later, adopted the Kyoto Protocol, which was the first international agreement to regulate GHG emissions. The Kyoto Protocol legally binds developed country Parties to emission reduction targets. The Protocol's first commitment period started in 2008 and ended in 2012. The second commitment period began on January 1, 2013 and will end in 2020. More than 160 countries signed the Kyoto Protocol (UNFCCC 2019). In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended the United States involvement in the Kyoto Protocol.

The 2015 Paris Agreement, adopted in Paris on December 12, 2015, marks the latest step in the evolution of the UN climate change regime and builds on the work undertaken under the Convention. The Paris Agreement charts a new course in the global effort to combat climate change. The Paris Agreement central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C (UNFCCC 2019). The Paris Agreement also aims to strengthen the ability of countries to deal with the impacts of climate change. The Paris Agreement requires all Parties to put forward their best efforts through nationally determined contributions and to strengthen these efforts in the years ahead.

The Paris Agreement entered into force on November 4, 2016, 30 days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55% of the total global GHG emissions have deposited their instruments of ratification, acceptance, approval or accession with the Depositary (UNFCCC 2019). On November 4, 2019, the Trump Administration gave formal notice of intention to withdraw from the Paris Agreement; however, the withdrawal becomes effective one year after notification (in November 2020).

Federal

Massachusetts v. EPA

In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In

December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under section 202(a) of the federal Clean Air Act:

- The administrator found that elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is the "endangerment finding."
- The administrator further found that the combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act (42 USC § 7401).

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140), among other key measures, would do the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and directs National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy-efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards

In 2007, in response to the *Massachusetts v. EPA* U.S. Supreme Court ruling, the Bush Administration issued Executive Order (EO) 13432 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 through 2016 (75 Fed. Reg. 25324–25728).

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 through 2025 light-duty vehicles. The proposed standards projected to achieve 163 grams/mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 through 2021 (77 Fed. Reg. 62624–63200). On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014 through 2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23% over the 2010 baselines (76 Fed. Reg. 57106–57513).

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

In August 2018, EPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards now in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2–3% of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of one degree Celsius by 2100 (EPA and NHTSA 2018). California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives.

On September 27, 2019, the EPA and NHTSA published the SAFE Vehicles Rule Part One: One National Program (84 Fed. Reg. 51,310), which became effective November 26, 2019. The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the EPA and NHTSA issued the Part Two Rule, which will go into effect 60 days after being published in the Federal Register. The Part Two Rule sets CO_2 emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. This issue is evolving as California and 22 other states, as well as the District of Columbia and four cities, filed suit against the EPA and a petition for reconsideration of the rule on November 26, 2019. It is unknown as to when this litigation will be resolved.

State

The statewide GHG emissions regulatory framework is summarized in this subsection by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, water, solid waste, and other state actions. The following text describes EOs, Assembly Bills (ABs), Senate Bills (SBs), and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

State Climate Change Targets

The state has taken a number of actions to address climate change. These actions are summarized below, and include EOs, legislation, and CARB plans and requirements.

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

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80% below 1990 levels

EO S-3-05 also directed the California Environmental Protection Agency to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry.

AB 32. In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006 (Cal. Health & Safety Code § 38500-38599 *et seq*). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020, and initiate the transformations required to achieve the state's long-range climate objectives.

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

CARB's 2007 Statewide Limit. In 2007, CARB approved a statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 MMT CO_2e), in accordance with Cal. Health and Safety Code § 38550.

CARB's Climate Change Scoping Plan. One specific requirement of AB 32 is for CARB to prepare a "scoping plan" for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Cal. Health and Safety Code, § 38561(a)), and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan: The *Climate Change Proposed Scoping Plan: A Framework for Change* (Scoping Plan). The Scoping Plan included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission-reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives. The key elements of the Scoping Plan include the following (CARB 2008):

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewable energy mix of 33%
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets

- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (Cal. Code Regs., tit. 17, § 95480 *et seq*.)
- Creating targeted fees, including a public goods charge on water use, fees on high-GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation

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

In 2014, CARB approved the first update to the Scoping Plan. The *First Update to the Climate Change Scoping Plan: Building on the Framework* (First Update) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EOs S-3-05 and B-16-2012 (CARB 2014). The First Update concluded that California is on track to meet the 2020 target, but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050 including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the state's 1990 emissions level, using more recent GWPs identified by the IPCC, from 427 MMT CO_2e to 431 MMT CO_2e.

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050, as set forth in S-3-05. The Governor called on California to pursue a new and ambitious set of strategies, in line with the five climate change pillars from his inaugural address, to reduce GHG emissions and prepare for the unavoidable impacts of climate change. In the summer of 2016, the Legislature affirmed the importance of addressing climate change through passage of SB 32.

In December 2017, CARB released the *2017 Climate Change Scoping Plan Update* (Second Update) for public review and comment (CARB 2017a). The Second Update builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target and define the state's climate change priorities to 2030 and beyond. The strategies' "known commitments" include implementing renewable energy and energy efficiency (including the mandates of SB 350), increased stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increased stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, the Second Update recommends continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20%.

For local governments, the Second Update replaced the initial Scoping Plan's 15% reduction goal with a recommendation to aim for a community-wide goal of no more than 6 MT CO_2e per capita by 2030 and no more than 2 MT CO_2e per capita by 2050, which are developed around the scientifically based levels necessary to limit global warming below 2 degrees Celsius (°C). The Second Update recognized the benefits of local government GHG

planning (e.g., through climate action plans (CAPs)) and provide more information regarding tools CARB is working on to support those efforts. It also recognizes the CEQA streamlining provisions for project-level review where there is a legally adequate CAP. The Second Update was approved by CARB's Governing Board on December 14, 2017.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32, SB 32, and the EOs; it also establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. A project is considered consistent with the statutes and EOs if it would meet the general policies in reducing GHG emissions in order to facilitate the achievement of the state's goals and would not impede attainment of those goals. As discussed in several cases, a given project need not be in perfect conformity with each and every planning policy or goal to be consistent. A project would be consistent if it would further the objectives and not obstruct their attainment.

CARB's Regulations for the Mandatory Reporting of Greenhouse Gas Emissions. CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Cal. Code Regs., tit. 17, §§ 95100–95157) incorporated by reference certain requirements that EPA promulgated in its Final Rule on Mandatory Reporting of Greenhouse Gases (40 CFR § 98). Specifically, section 95100(c) of the Mandatory Reporting Regulation incorporated those requirements that EPA promulgated in the *Federal Register* on October 30, 2009; July 12, 2010; September 22, 2010; October 28, 2010; November 30, 2010; December 17, 2010; and April 25, 2011. In general, entities subject to the Mandatory Reporting Regulation that emit over 10,000 MT CO_2e per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 MT CO_2e per year threshold are required to have their GHG emissions report verified by a CARB-accredited third-party.

EO B-18-12. EO B-18-12 (April 2012) directed state agencies, departments, and other entities under the Governor's executive authority to take action to reduce entity-wide GHG emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline. EO B-18-12 also established goals for existing state buildings for reducing grid-based energy purchases and water use.

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

SB 605 and SB 1383. SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants (SLCPs) in the state (Cal. Health and Safety Code § 39730); and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018 (Cal. Pub. Resources Code § 42652-43654). SB 1383 also establishes specific targets for the reduction of SLCPs (40% below 2013 levels by 2030 for CH_4 and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its *Short-Lived Climate Pollutant Reduction Strategy* (SLCP Reduction Strategy) in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane and fluorinated gases (CARB 2017b).

EO B-55-18. EO B-55-18 (September 2018) establishes a statewide policy for the state to achieve carbon neutrality as soon as possible (no later than 2045), and achieve and maintain net negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Building Energy

Title 24, Part 6. The California Building Standards Code were established in 1978 and serves to enhance and regulate California's building standards (Cal. Code Regs, tit. 24). While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure that new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (CEC), and revised if necessary (Cal. Pub. Resources Code, § 25402(b)(1)). The regulations receive input from members of industry, as well as the public, in order to "reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (Cal. Pub. Resources Code, § 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (Cal. Pub. Resources Code, § 25402(d)) and cost effectiveness (Cal. Pub. Resources Code, § 25402(b)(2–3)). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment. The current Title 24 standards are the 2019 Title 24 building energy efficiency standards, which became effective January 1, 2020.

Title 24, Part 11. In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as California's Green Building Standards (CALGreen), and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The 2019 CALGreen standards are the current applicable standards. For nonresidential projects, some of the key mandatory CALGreen 2019 standards involve requirements related to bicycle parking, designated parking for clean air vehicles, electric vehicle (EV) charging stations, shade trees, water conserving plumbing fixtures and fittings, outdoor potable water use in landscaped areas, recycled water supply systems, construction waste management, excavated soil and land clearing debris, and commissioning (24 CCR Part 11).

Title 20. Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency (Cal. Code Regs. tit. 20, § 1401-1410 *et seq*.). The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include: refrigerators, refrigerator-freezers and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for

appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

SB 1. SB 1 (2006) established a $3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the Public Resources Code, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements (Cal. Pub. Resources Code, § 25780-25784 *et seq*.). Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry. The goals included establishing solar energy systems as a viable mainstream option for both homes and businesses within 10 years of adoption, and placing solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed "Go Solar California," was previously titled "Million Solar Roofs."

AB 1470 (Solar Water Heating). This bill established the Solar Water Heating and Efficiency Act of 2007 (Cal. Pub. Utilities Code § 2851-2869 *et seq*.). The bill makes findings and declarations of the Legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand. The bill defines several terms for purposes of the act. The bill requires the commission to evaluate the data available from a specified pilot program, and, if it makes a specified determination, to design and implement a program of incentives for the installation of 200,000 solar water heating systems in homes and businesses throughout the state by 2017.

AB 1109. Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting to reduce electricity consumption by 50% for indoor residential lighting and by 25% for indoor commercial lighting (Cal. Pub. Resource Code § 25402.5.4).

Renewable Energy and Energy Procurement

SB 1078. SB 1078 (2002) (Cal. Pub. Utilities Code § 399.11 *et seq*.) established the Renewables Portfolio Standard (RPS) program, which required an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010 (see SB 107, EO S-14-08, and S-21-09).

SB 1368. SB 1368 (2006), required the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities (Cal. Pub. Utilities § 8340-8341 *et seq*.). These standards must be consistent with the standards adopted by the California Public Utilities Commission (CPUC).

EO S-14-08. EO S-14-08 (2008) focused on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. This EO required that all retail suppliers of electricity in California serve 33% of their load with renewable energy by 2020. Furthermore, the EO directed state agencies to take appropriate actions to facilitate reaching this target. The CNRA, through collaboration with CEC and the California Department of Fish and Wildlife, was directed to lead this effort.

EO S-21-09 and SBX1-2. EO S-21-09 (2009) directed CARB to adopt a regulation consistent with the goal of EO S-14-08 by July 31, 2010. CARB was further directed to work with CPUC and CEC to ensure that the regulation builds upon the RPS program and was applicable to investor-owned utilities, publicly owned utilities, direct access providers, and community choice providers. Under this order, CARB was to give the highest priority to those renewable resources that provide the greatest environmental benefits with the least environmental costs and

impacts on public health, and those that can be developed the most quickly in support of reliable, efficient, cost-effective electricity system operations. On September 23, 2010, CARB initially approved regulations to implement a Renewable Electricity Standard; however, this regulation was not finalized because of subsequent legislation (SB X1-2) signed by Governor Brown in April 2011.

SB X1-2 expanded RPS by establishing a renewable energy target of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (30 megawatts or less), digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location.

SB X1-2 applies to all electricity retailers in the state, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must meet the renewable energy goals listed above.

SB 350. SB 350 (2015) further expanded the RPS program by establishing a goal of 50% of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 included the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

SB 100. SB 100 (2018) increased the standards set forth in SB 350, establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Mobile Sources

State Vehicle Standards (AB 1493 and EO B-16-12). AB 1493 (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. It ordered CARB, CEC, CPUC, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve benchmark goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare. As explained under the "Federal Vehicle Standards" description above, EPA and NHTSA approved the SAFE Vehicles Rule Part One and

Two, which revoked California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California.

Heavy-Duty Diesel. CARB adopted the final Heavy-Duty Truck and Bus Regulation on December 31, 2014 to reduce diesel particulate matter, a major source of black carbon, and oxides of nitrogen emissions from heavy-duty diesel vehicles (Cal. Code Regs., tit 13, § 2025). The rule requires diesel particulate matter filters be applied to newer heavier trucks and buses by January 1, 2012, with older vehicles required to comply by January 1, 2015. The rule will require nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an Airborne Toxic Control Measure to limit idling of diesel-fueled commercial vehicles on December 12, 2013. This rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than 5 minutes at any location (Cal. Code Regs., tit. 13, § 2485).

EO S-1-07. EO S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020 (Cal. Code Regs., tit.17, § 95480 *et seq*.). The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel—including extraction/feedstock production, processing, transportation, and final consumption—per unit of energy delivered.

SB 375. SB 375 (Cal. Gov. Code § 65080) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG-reduction targets for the automobile and light-truck sector for 2020 and 2035, and to update those targets every 8 years. SB 375 requires the state's 18 regional metropolitan planning organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan that will achieve the GHG-reduction targets set by CARB. If an MPO is unable to devise an SCS to achieve the GHG-reduction target, the MPO must prepare an Alternative Planning Strategy demonstrating how the GHG-reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

A SCS does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it (Cal Gov. Code, § 65080(b)(2)(K)). Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program. The Advanced Clean Cars program (January 2012) is a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2012). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025, cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The zero-emission vehicle program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of zero-emission vehicles and plug-in hybrid EVs in the 2018 to 2025 model years. However, as detailed previously, EPA and NHTSA published the SAFE Vehicles Rule, which revokes California's authority to set its own GHG emissions

standards and set zero-emission vehicle mandates in California. The effect of the SAFE Rule on the Advanced Clean Cars program is still to be determined pending the ruling of ongoing litigation.

Water

SB X7-7. SB X7-7 or the Water Conservation Act of 2009, requires that all water suppliers increase their water use efficiency with an overall goal of reducing per capita urban water use by 20% by December 31, 2020. Each urban water supplier shall develop water use targets to meet this goal.

EO B-29-15. In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

EO B-37-16. Issued May 2016, EO B-37-16 directs the State Water Resources Control Board (Water Board) to adjust emergency water conservation regulations through the end of January 2017 to reflect differing water supply conditions across the state. The Water Board must also develop a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25% reduction called for in EO B-29-15. The Water Board and Department of Water Resources will develop new, permanent water use targets that build upon the existing state law requirements that the state achieve a 20% reduction in urban water usage by 2020. EO B-37-16 also specifies that the Water Board will permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in a fountain or other decorative water feature; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians.

EO B-40-17. EO B-40-17 (April 2017) lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. It also rescinds EO B-29-15, but expressly states that EO B-37-16 remains in effect and directs the Water Board to continue development of permanent prohibitions on wasteful water use.

Solid Waste

AB 939, AB 341, and AB 1826. In 1989, AB 939, known as the Integrated Waste Management Act (Cal. Pub. Resources Code, § 40000 *et seq.*), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board (replaced in 2010 by the California Department of Resources Recycling and Recovery, or CalRecycle), which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required CalRecycle to develop

strategies to achieve the state's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies that it believes would assist the state in reaching the 75% goal by 2020.

AB 1826 (Chapter 727, Statutes of 2014, effective 2016) requires businesses to recycle their organic waste (i.e., food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste) depending on the amount of waste they generate per week. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. The minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

Other State Actions

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

Under the amended State CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (Cal. Code Regs., tit. 14, § 15064.4(a)). The State CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (Cal. Code Regs., tit. 14, § 15064.4(b)). The State CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009a).

With respect to GHG emissions, the State CEQA Guidelines section 15064.4(a) state that lead agencies "should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The State CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or performance based standards" (Cal. Code Regs., tit. 14, § 15064.4(a)). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (Cal. Code Regs., tit. 14, § 15064.4(b)).

EO S-13-08. EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final *2009 California Climate Adaptation Strategy* report was issued in December 2009 (CNRA 2009b), and an update, *Safeguarding California: Reducing Climate Risk*, followed in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: Agriculture, Biodiversity and Habitat, Emergency Management, Energy, Forestry, Ocean and Coastal Ecosystems and Resources, Public Health, Transportation, and Water. Issuance of the *Safeguarding California: Implementation Action Plans* followed in March 2016 (CNRA 2016). In January 2018, the CNRA released the *Safeguarding California Plan: 2018 Update,* which communicates current and needed actions that state government should take to build climate change resiliency (CNRA 2018b).

Local Regulations

El Dorado County General Plan

The following goal, objective, and policy from the Public Services and Utilities Element of the General Plan (County of El Dorado 2015), which was updated in December 2015, would apply to GHGs:

- **Goal 5.6 Gas, Electric, and Other Utility Services.** Sufficient utility service availability consistent with the needs of a growing community.
    - **Objective 5.6.2 Encourage Energy 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.

3.7.3 Significance Criteria

The standards of significance used to evaluate the impacts of the proposed project related to GHGs are based on Appendix G of the CEQA Guidelines, as listed below. A significant impact would occur if the proposed project would:

- Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

CEQA does not provide clear direction on addressing climate change. It requires lead agencies identify project GHG emissions impacts and their "significance," but that statute and Guidelines do not set significance criteria for what constitutes a "significant" impact. GHG impacts are inherently cumulative, and since no single project could cause global climate change, the CEQA test is if impacts are "cumulatively considerable." Not all projects emitting GHG contribute significantly to climate change. CEQA authorizes reliance on previously approved plans (i.e., a CAP, etc.) and mitigation programs adequately analyzing and mitigating GHG emissions to a less than significant level. "Tiering" from such a programmatic-level document is the preferred method to address GHG emissions. El Dorado County does not have an adopted CAP or similar program-level document; therefore, the project's GHG emissions must be addressed at the project-level.

Unlike thresholds of significance established for criteria air pollutants in the El Dorado County Air Quality Management District's (EDCAQMD's) *Guide to Air Quality Assessment*, the EDCAQMD has not adopted GHG

emissions thresholds for land use development projects. In the absence of County adopted thresholds, EDCAQMD recommends using the adopted thresholds of other lead agencies which are based on consistency with the goals of AB 32. Projects exceeding these thresholds would have a potentially significant impact and be required to mitigate those impacts to a less than significant level. Until the County adopts a CAP consistent with CEQA Guidelines Section 15183.5, and/or establishes GHG thresholds, the County will follow an interim approach to evaluating GHG emissions utilizing significance criteria adopted by the San Luis Obispo Air Pollution Control District (SLOAPCD), as recommended by the EDCAQMD, to determine the significance of GHG emissions, based on substantial evidence (SLOACPD 2012). These are summarized below:

- The threshold for stationary sources is 10,000 MT CO_2e per year
- For nonstationary sources, the following two separate thresholds have been established:
  - 1,150 MT CO_2e per year
  - 4.9 MT CO2e per service population per year (Service population is the sum of residents plus employees expected for a development project.)

The quantitative threshold of 1,150 MT CO_2e annually adopted by SLOAPCD is applied to this analysis.

3.7.4 Project Impacts

Approach and Methodology

Construction

CalEEMod Version 2016.3.2 was used to estimate project-generated GHG emissions during construction. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.2 (Air Quality) of this EIR, are also applicable for the estimation of construction-related GHG emissions. As such, see Section 3.2 for a discussion of construction emissions calculation methodology and assumptions used in the GHG emissions analysis.

Operations

Emissions from the operational phase of the project were estimated using CalEEMod Version 2016.3.2. Year 2022 was assumed based on the anticipated first full year of operations. Potential project-generated operational GHG emissions were estimated for area sources (landscape maintenance), energy sources (natural gas and electricity), mobile sources, solid waste, water supply and wastewater treatment. Emissions from each category are discussed in the following text. For additional details, see Section 3.2 (Air Quality) of this EIR for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (natural gas), and mobile sources.

Area

CalEEMod was used to estimate GHG emissions from operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. Consumer product use and architectural coatings result in reactive organic gases emissions, which are analyzed in air quality analysis only, and generate little to no GHG emissions.

Energy

The estimation of operational energy emissions was based on CalEEMod land use defaults total area (i.e., square footage) of the project. For nonresidential buildings, CalEEMod energy intensity value (electricity or natural gas usage per square foot per year) assumptions were based on the California Commercial End-Use Survey database. CalEEMod default values for energy consumption assume compliance with the 2016 Title 24 Building Energy Efficiency Standards, which were assumed for this analysis. This is conservative since the project would be required to comply with the more stringent 2019 Title 24 Building Energy Efficiency Standards that became effective January 1, 2020.

Emissions are calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or 1,000 British thermal units for natural gas) for CO_2 and other GHGs. Emission factors (in pounds per megawatt-hour) for CH_4 and N_2O are from CalEEMod for Pacific Gas & Electric (PG&E). The CO_2 emission factor is from PG&E's reported intensity for 2017 (PG&E 2019).

Mobile Sources

All details for criteria air pollutants discussed in Section 3.2 (Air Quality) of this EIR are also applicable for the estimation of operational mobile source GHG emissions. Regulatory measures related to mobile sources include AB 1493 (Pavley) and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. In addition, the NHTSA and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the project's motor vehicles. The effectiveness of fuel economy improvements was evaluated by using the CalEEMod emission factors for motor vehicles, to the extent it was captured in EMFAC 2014.[3]

Solid Waste

The project would generate solid waste, and therefore, result in CO_2e emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste for the proposed project.

Water and Wastewater Treatment

Supply, conveyance, treatment, and distribution of water for the proposed project require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. The indoor water use and electricity consumption from water use and wastewater generation were estimated using CalEEMod default values for the project, and it was assumed that wastewater treatment would be 100% septic.

[3] The Low Carbon Fuel Standard calls for a 10% reduction in the "carbon intensity" of motor vehicle fuels by 2020, which would further reduce GHG emissions. However, the carbon intensity reduction associated with the Low Carbon Fuel Standard was not assumed in EMFAC 2014 and thus, was not included in CalEEMod 2016.3.2.

Project Impacts

Impact 3.7-1

The project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

The proposed project would result in GHG emissions associated with short-term construction and long-term operations.

Construction

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, vendor and haul trucks, and worker vehicles. CalEEMod was used to calculate the annual GHG emissions. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, trucks, and worker vehicles—is included in Appendix B. The estimated project-generated GHG emissions from construction activities are shown in Table 3.7-3.

Table 3.7-3. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	metric tons per year			
2020	86.00	0.02	0.00	86.39
2021	39.63	0.01	0.00	39.80
			Total Annual GHG Emissions	**126.19**
			Amortized GHG Emissions	*5.05*

Notes: See Appendix B for detailed results.
MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

As shown in Table 3.7-3, estimated total annual construction GHG emissions would be approximately 126 MT CO_2e. Construction GHG emissions are a one-time release and, therefore, typically not expected to generate a significant contribution to global climate change. In order to present a worst-case scenario, the proposed project's construction-related GHG emissions have been amortized over 25 years (i.e., the lifetime of commercial projects per SLOACPD) and included with the operational GHG emissions.

Operation

Operation of the proposed project would generate GHG emissions through motor vehicle trips to and from the project site; landscape maintenance equipment operation; energy use (natural gas and generation of electricity consumed by the project); solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution and wastewater treatment. The estimated project-generated GHG emissions from operational activities were estimated using CalEEMod and are shown in Table 3.7-4.

Table 3.7-4. Estimated Annual Operational GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	metric tons per year			
Area	<0.01	0.00	0.00	<0.01
Energy	15.63	<0.01	<0.01	15.80
Mobile	417.39	0.01	0.00	417.76
Waste	7.95	0.47	0.00	19.68
Water/Wastewater	0.49	0.15	<0.01	4.47
			Maximum Annual Emissions	**457.71**
			Amortized Construction Emissions	*5.05*
			Total Operational + Amortized Construction GHGs	**462.76**

Notes: See Appendix B for detailed results.
<0.01 = value less than reported 0.01 metric tons per year.
MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

As shown in Table 3.7-4, estimated annual project-generated GHG emissions would be approximately 458 MT CO_2e per year as a result of project operations only. After summing the amortized project construction emissions, total GHGs generated by the project would be approximately 463 MT CO_2e per year. As such, annual operational GHG emissions with amortized construction emissions would not exceed the applied threshold of 1,150 MT CO_2e per year. Therefore, the project's GHG contribution would be **less than significant** and would not be cumulatively considerable.

Impact 3.7-2

The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The CARB Scoping Plan, approved by CARB in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.[4] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. To the extent that these regulations are applicable to the project or its uses, the project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law.

The project would also not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in SB 32 and EO S-3-05, respectively. EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide

[4] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009a).

GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis; CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update states the following (CARB 2014):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the Second Update, which states (CARB 2017):

> The Proposed Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasibility and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Proposed Plan is developed to be consistent with requirements set forth in AB 32, SB 32, and AB 197.

The project would be consistent with the applicable strategies and measures in the Scoping Plan and is consistent with, and would not impede, the state's trajectory toward the above-described statewide GHG reduction goals for 2030 or 2050. In addition, since the specific path to compliance for the state in regard to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the project would be speculative and cannot be identified at this time. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets.

Based on the above considerations, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and no mitigation is required. This impact would be **less than significant**.

3.7.5 Cumulative Impacts

It is understood that GHG emissions are inherently cumulative in their effect. Therefore the impact analysis of Section 3.7.4 should be considered be .

3.7.6 Mitigation Measures

No mitigation measures are required.

3.7.7 References

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3.8 Hazards and Hazardous Materials

This section describes the hazards and hazardous materials[1] setting on and near the proposed project site; discusses the relevant federal, State, and regional regulatory considerations; and evaluates the potential impacts of the project related to hazards and hazardous materials (during both the construction phase and following project completion).

Public comments related to hazards and hazardous materials that were received in response to circulation of the Notice of Preparation (Appendix B) and the public scoping meeting for the proposed project included concerns that ground disturbing activities during construction could expose the surrounding community to naturally occurring asbestos and increased traffic at the intersection could impair emergency access. The potential of the proposed project to result in the release of naturally occurring asbestos is addressed in Chapter 3.2, Air Quality, of this EIR.

Information regarding hazardous materials in the project vicinity that may potentially affect the environment on the project site or the surrounding area is based on the Phase I Environmental Site Assessment (ESA) prepared for the project site by Bole & Associates in 2019 (included in Appendix H of this EIR).

3.8.1 Environmental Setting

Phase I Environmental Site Assessment

The Phase I ESA for the project site (included in Appendix H of this EIR) did not identify the presence or likely presence of any hazardous materials on the project site. The review of topographic and satellite maps for the project site indicates that the project site has never been developed for any commercial, retail, or industrial purpose, and there are no permanent structures currently located on the project site. The project site contains a centrally located gravel parking lot, and the remainder of the site consists of undeveloped land.

The nearest hazardous materials release site is the Sierra Super Stop property located at 2968 Highway 49, Cool, California, approximately 350 feet west-southwest of the project site. The Sierra Super Stop property, now branded as a 76 gas station, has undergone remediation to onsite soils and groundwater from a leaking underground gasoline storage tank first reported in 2005, and is currently eligible for closure (Central Valley Regional Water Quality Control Board 2020). The most recent groundwater monitoring report available for the property indicates that groundwater flow is to the west, away from the project site (E2C Remediation 2020). Based on the remediation status of the property, local groundwater flow gradients, and location of the property relative to the project site, the Phase I ESA concluded that the Sierra Super Stop property is not a potential source of contamination to soils and groundwater at the project site.

Surrounding Land Uses

The project site is located in a predominantly commercial/retail corridor of Cool. A multiple tenant retail center (including a restaurant and a post office) is located north of the project site, across Northside Drive. A multiple-

[1] The California Health and Safety Code defines a hazardous material as, "…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. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, 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" (California Health and Safety Code Section 25501).

tenant retail/shopping center that includes a gasoline fueling station is located west of the project site, across Highway 49. Undeveloped land is located east and south of the project site.

The Auburn Municipal Airport is the nearest airport to the project site, and is located approximately 5.5 miles northwest of the project site.

The closest school to the project site is Northside Elementary School, located approximately 1.3 miles south of the project site along Highway 49. There is also a childcare facility, the Cool Learning Center, located approximately 100 feet west of the project site at 2968 Highway 49, Cool, California.

Wildland Fire Conditions

Wildland fire is defined as "any non-structure fire that occurs in vegetation or natural fuels" (Fire Management Board 2019). Wildland fires may be started by natural processes (primarily lightning) or it may be started (intentionally and accidentally) by human activities, such as smoking, debris burning, and equipment operation. For this reason, the risk of fire increases where there is human access into wildland areas. Emergency fire access plays a major role in determining whether a fire can be quickly extinguished or whether it will spread. Topography is a primary factor for assessing the fire hazard of an area. As slopes increase, fires spread faster, and accessibility by fire crews and equipment often decreases.

The State Board of Forestry identifies those lands where the California Department of Forestry and Fire Protection (CAL FIRE) has the primary duty for wildland fire prevention and suppression; these lands are commonly known as state responsibility areas. CAL FIRE has mapped the fire hazard potential within state responsibility areas based on relevant factors such as fuels, terrain, and weather. The hazards are described according to their potential to cause ignition of buildings. The maps classify land into Fire Hazard Severity Zones of moderate, high, and very high. The maps are based on data and models describing development patterns, estimated fire behavior characteristics over a 30- to 50-year time horizon, and expected burn probabilities, to quantify the likelihood and nature of vegetation fire exposure to new construction. The project site and surrounding areas are mapped as a high fire hazard severity zone in a state responsibility area (CAL FIRE 2020).

Emergency Response and Evacuation

The El Dorado County Sherriff's Office of Emergency Services (OES) is the emergency management agency for El Dorado County (El Dorado County 2018). The El Dorado County OES uses an alert notification system to alert county residents about public health and public safety emergencies including evacuations due to wildland fires, hazardous material spills, and urgent law enforcement operations (El Dorado County 2020a).

3.8.2 Regulatory Framework

Federal Regulations

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (U.S. EPA) is the federal agency responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials and hazardous waste. The federal regulations are primarily codified in Title 40 of the Code of Federal Regulations (CFR). The legislation includes the Resource Conservation and Recovery Act of 1976; the Superfund Amendments and Reauthorization Acts of 1986;

the Comprehensive Environmental Response, Compensation, and Liability Act of 1980; and the Toxic Substances Control Act of 1976. The EPA provides oversight for site investigation and remediation projects and has developed protocols for sampling, testing, and evaluation of solid wastes.

Occupational Safety and Health Administration

The Occupational Health and Safety Administration (OSHA) is the federal agency responsible for enforcing and implementing federal laws and regulations pertaining to worker health and safety. OSHA's Hazardous Waste Operations and Emergency Response regulations require training and medical supervision for workers at hazardous waste sites. Additional regulations have been developed regarding exposure to lead and asbestos to protect construction workers and are enforced through the California Division of OSHA, described below.

Department of Transportation

In 1990 and 1994, the federal Hazardous Material Transportation Act was amended to improve the protection of life, property, and the environment from the inherent risks of transporting hazardous materials in all major modes of commerce. The United States Department of Transportation (DOT) developed hazardous materials regulations that govern the classification, packaging, communication, transportation, and handling of hazardous materials, as well as employee training and incident reporting. The transportation of hazardous materials is subject to both the Resource Conservation and Recovery Act and DOT regulations. The California Highway Patrol, California Department of Transportation (Caltrans), and the Department of Toxic Substances Control (DTSC) are responsible for enforcing federal and state regulations pertaining to the transportation of hazardous materials.

State Regulations

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) implements and enforces environmental laws that regulate air, water and soil quality, pesticide use and waste recycling and reduction. Departments within CalEPA include DTSC, State Water Board, and California Air Resources Board.

Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. CalEPA and other state agencies set the standards for their programs, while a Certified Unified Program Agency (CUPA) designated by the local government and approved by CalEPA implements the standards. For each county, the CUPA regulates/oversees the following:

- Hazardous materials business plans;
- California accidental release prevention plans or federal risk management plans;
- The operation of USTs and ASTs;
- Universal waste and hazardous waste generators and handlers;
- On-site hazardous waste treatment;
- Inspections, permitting, and enforcement;

- Proposition 65 reporting; and
- Emergency response.

California Office of Emergency Services

The California Office of Emergency Services State Warning Point acts as the Governor's 911 Dispatch Center. The State Warning Point, under federal SARA Title III requirements, must be notified as soon as possible of spills and releases of hazardous substances exceeding Emergency Planning and Community Right-to-Know Act minimal reportable quantities. The California Office of Emergency Services compiles Statewide statistics on spills and releases, and will dispatch other regional, State, and federal agencies to the scene, if necessary.

Hazardous Materials Business Plans

A Hazardous Materials Business Plan is required for any business that handles hazardous materials in quantities greater than or equal to 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet (cf) of compressed gas, hazardous waste, or extremely hazardous substances above the threshold planning quantity (40 CFR, Part 355) (Cal OES 2015; El Dorado County 2020b). Business plans are required to include an inventory of the hazardous materials used/stored by the business, a site map, an emergency plan, and a training program for employees (Cal OES 2015). In addition, business plan information is provided electronically to a statewide information management system, verified by the applicable CUPA, and transmitted to agencies responsible for the protection of public health and safety (i.e., local fire department, hazardous material response team, and local environmental regulatory groups) (Cal OES 2015).

California Occupational Safety and Health Administration

Worker health and safety is regulated at the federal level by the OSHA. The Federal Occupational Safety and Health Act of 1970 authorizes the states to establish their own safety and health programs with OSHA approval. In California, worker health and safety protections are regulated by the California Occupational Safety and Health Administration (Cal/OSHA), which also provides consultant assistance to employers. California standards for workers dealing with hazardous materials are contained in Title 8 of the CCR and include practices for all industries (General Industrial Safety Orders), with specific practices for construction and other industries. Workers at hazardous waste sites (or workers who may be exposed to hazardous wastes that might be encountered during excavation of contaminated soils) must receive specialized training and medical supervision according to the Hazardous Waste Operations and Emergency Response regulations (8 CCR Section 5192). Additional regulations have been developed for construction workers potentially exposed to lead (8 CCR Section 1532.1) and asbestos (8 CCR Section 1529). Cal/OSHA enforcement units conduct on-site evaluations and issue notices of violation to enforce necessary improvements to health and safety practices.

California Department of Forestry and Fire Protection Wildland Fire Management

The Office of the State Fire Marshal and the CAL FIRE administer state policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442).

- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Public Resources Code Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (Public Resources Code Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline fueled internal combustion engines must not be used within 25 feet of any flammable materials (Public Resources Code Section 4431).

California Highway Patrol

The California Highway Patrol (CHP), along with Caltrans and DTSC, enforce and monitor hazardous materials and waste transportation laws and regulations in California. These agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. All motor carriers and drivers involved in transportation of hazardous materials must apply for and obtain a hazardous materials transportation license from CHP.

Local Regulations

El Dorado County Department of Environmental Management

The El Dorado County Department of Environmental Management is the primary agency responsible for local enforcement of State and federal laws pertaining to hazardous materials and hazardous waste management (El Dorado County 2020c). The El Dorado County Department of Environmental Management is the local CUPA, responsible for coordination of the following programs: Hazardous Materials Business Plan Program, Hazardous Waste Generator Program and Onsite Hazardous Waste Treatment (tiered permitting) Programs, Underground Storage Tank Program, California Accidental Release Prevention Program, and Aboveground Petroleum Storage Act. The Solid Waste and Hazardous Material Division of the El Dorado County Department of Environmental Management leads the county's hazardous materials emergency response program.

The El Dorado County Department of Environmental Management is also responsible for implementing the El Dorado County Hazardous Waste Management Plan and the county and regional hazardous materials incident response plans (El Dorado County 2020d). The El Dorado County Hazardous Waste Management Plan was developed in 1990 in accordance with California Department of Environmental Health Guidelines and the majority of activities identified in the plan have since been implemented (El Dorado County 2020d). The El Dorado County Hazardous Materials Area Plan (El Dorado County 2009) describes the County's pre-incident planning and preparedness for hazardous materials releases. It clarifies the roles and responsibilities of federal, State, and local agencies during a hazardous materials incident. It describes the county's hazardous materials incident response program, training, communications, and post-incident recovery procedures. The Regional (11 County) Hazardous Materials Emergency Plan (Region IV Local Emergency Planning Committee 2011) builds on the county Hazardous Materials Area Plans and facility Hazardous Materials Business Plans located in the region's counties. It includes the identity, location and emergency contacts for facilities that handle threshold quantities of extremely hazardous substances. It also contains chemical release response procedures, public protective action notification information, county government emergency coordinators and plans for exercising the Hazardous Materials Emergency Plan.

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 combustible material that constitutes a fire hazard which may endanger or damage neighboring property, and describes the means of enforcement. The following provisions are applicable to the proposed project:

Sec. 8.09.070. - Duty to remove and abate hazardous vegetation and combustible material.

A. It shall be the duty of every owner, occupant, and person in control of any parcel of land or interest therein, which is located within the County to remove, or abate, all hazardous vegetation and combustible material, which constitutes a fire hazard and may endanger or damage neighboring property.

B. The owner, lessee or occupant of buildings, grounds, or lots within the County shall remove from such property and adjacent streets all waste, garbage, rubbish, weeds, hazardous vegetation or other combustible materials growing or accumulated thereon in accordance with the procedures and methods prescribed in this chapter and by the Enforcement Official.

D. Any home owners association (HOA), lighting and landscape district, subdivision development, special district, or other entity that has a developed and approved Wildland Fire Safe Plan in accordance with the County's General Plan requirement and CFC Chapter 49, shall be granted a reasonable amount of time to comply with this ordinance not to exceed five years from the date which this ordinance was approved and ratified by the Board of Supervisors (May 30, 2019).

E. Prior to the close of any real estate sales transaction within the County, the requirements for property owners to comply with the Vegetation Management Ordinance shall be disclosed to all potential property owners.

F. All improved parcels, shall comply with the following requirements:

1. Maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line except as provided in Paragraph 11. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This paragraph does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation.
2. Consistent with fuels management treatment objectives, steps should be taken to minimize erosion. For the purposes of this paragraph, "fuel" means any combustible material, including petroleum-based products and wildland fuels.
3. A greater distance than that required under Paragraph 1 may be required by State law, local ordinance, rule, or regulation. Clearance beyond the property line may only be required if the State law, local ordinance, rule, or regulation includes findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure.
4. Clearance on adjacent property shall only be conducted following written consent by the adjacent landowner.
5. Remove that portion of a tree that extends within ten feet of the outlet of a chimney or stovepipe.
6. Maintain trees, shrubs, or other plants adjacent to or overhanging a building free of dead or dying wood.

7. Maintain the roof of a structure free of leaves, needles, or other vegetative materials.
8. A person is not required under this section to manage fuels on land if that person does not have the legal right to manage fuels, nor is a person required to enter upon or to alter property that is owned by any other person without the written consent of the owner of the property.
9. Cultivated and useful grasses and pastures shall not be considered a public nuisance. However, if the County's Enforcement Official determines it necessary to protect adjacent improved property from fire exposure, an adequate firebreak may be required.
10. The public and entities should be aware of rare plants areas, riparian areas, and raptor nesting trees on the property and try to avoid these sites.
11. Good neighbor and neighborhood protection policy including unimproved parcels. A 100-foot wide strip of land around structure(s) located on an adjacent improved parcel (some or all of this clearance may be required on the adjacent improved parcel or the adjacent unimproved parcel depending upon the location of the structure on the improved parcel). For example, a structure could be within 70 feet of its property line. The adjacent property owner shall assist its neighbor by completing fuels management on another 30 feet to create a 100-foot strip of treated land.
12. Improved and unimproved parcels adjacent to all roadways that have been designated by the County Enforcement Official (or designee) to be necessary for the safe ingress and egress to the area served by the roadway or fire access easement and the current condition of fuels on the improved or unimproved parcel is assessed by the County Enforcement Official as an extra hazardous fire condition which must be treated or abated.

El Dorado County Local Hazard Mitigation Plan

The El Dorado County Local Hazard Mitigation Plan (El Dorado County 2018) updates the El Dorado County Multi-Hazard Mitigation Plan. The purpose of the plan is to guide hazard mitigation planning to better protect the people and property of the county from the effects of hazard events. The plan serves as a tool to help decision makers direct mitigation activities and resources. It provides risk and vulnerability assessments for potential hazards (i.e., avalanche, dam failure, drought, earthquake, erosion, flood, seiche, severe weather/extreme temperatures, severe weather/thunderstorms, wildfire, and subsidence) and develops mitigation strategies to reduce potential hazards.

El Dorado County General Plan

The following goals, objectives, and policies related to hazards and hazardous materials are established in the Public Health, Safety, and Noise Element of the El Dorado County General Plan (El Dorado County 2019) and are applicable to the project.

- **Goal 6.1:** A coordinated approach to hazard and disaster response planning
  - **Objective 6.1.1:** Fire Hazard Severity Zone 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 6.1.1.1:** The El Dorado County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) shall serve as the implementation program for the coordination hazard planning and disaster response efforts within the County and is incorporated by reference to this Element. The County will ensure that the LHMP is updated on a regular basis to keep pace with the growing population.

- **Goal 6.2:** Minimize fire hazards and risks in both wildland and developed areas.
  - **Objective 6.2.1:** All new development and structures shall meet "defensible space" requirements and adhere to fire code building 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.
  - **Objective 6.2.2:** Regulate development in areas of high and very high fire hazard as designated by the California Department of Forestry and Fire Prevention Fire Hazard Severity Zone Maps.
    - **Policy 6.2.2.1:** Fire Hazard Severity Zone 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 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 Fire Protection District having jurisdiction and/or California Department of Forestry and Fire Protection. (Resolution 124- 2019, August 6, 2019)
  - **Objective 6.2.3:** 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 firefighting 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 6.2.3.4:** All new development and public works projects shall be consistent with applicable State Wildland Fire Standards and other relevant State and federal fire requirements.
  - **Objective 6.2.4:** 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 the California Department of Forestry and Fire Protection and local fire protection districts to identify opportunities for fuel breaks in zones of high and very high fire hazard either prior to or as a component of project review.
- **Goal 6.6:** Recognize and reduce the threats to public health and the environment posed by the use, storage, manufacture, transport, release, and disposal of hazardous materials.
  - **Objective 6.6.1:** Regulate the use, storage, manufacture, transport, and disposal of hazardous materials in accordance with State and Federal regulations.

3.8.3 Significance Criteria

The significance criteria used to evaluate the project impacts are based on Appendix G of the CEQA Guidelines. A significant impact related to hazards and hazardous materials would occur if the proposed project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

As described in the Initial Study (Appendix H), the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and is not located within an airport land use plan area or in the vicinity of a public airport or private airstrip. These topics are not discussed further in this EIR.

The potential of the proposed project to result in the release of naturally occurring asbestos is addressed in Chapter 3.2, Air Quality, of this EIR.

3.8.4 Project Impacts

Methodology

The Phase I ESA for the project site (included in Appendix H of this EIR), DTSC's Envirostor database, and the State Water Resources Control Board's GeoTracker database, were reviewed to determine if the project may have a significant impact related to hazards and hazardous materials. The evaluation also considers the potential transport, use, storage and disposal of hazardous materials associated with the construction and operation of the proposed project, and the wildfire risk of the project site and surrounding areas. In determining the level of significance, this analysis assumes that the proposed project would comply with relevant State and local ordinances and regulations, as well as the General Plan policies presented above. Note that, under CEQA, the effects of the existing environment upon a proposed project is not a *project* impact. A project impact occurs when direct or indirect changes to the environment would occur as a result of implementation of the project.

Project Impacts

Impact 3.8-1

The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or accidental release of hazardous materials.

Hazardous materials (e.g., fuel, oils, solvents, paints) would be routinely transported, stored, and used at the project site during construction. Because the project would result in soil disturbance greater than 1 acre, management of soil and hazardous materials during construction activities would be subject to the requirements of the Stormwater Construction General Permit (described in detail under Chapter 3.9, Hydrology and Water Quality, of this EIR), which requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes hazardous materials storage requirements. For example, construction site operators must store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

Operation of the project would involve the routine storage and use of small quantities of commercially available hazardous materials for routine maintenance (e.g., paint and cleaning supplies). Additionally, small quantities of commercially available hazardous materials would be sold by the proposed retail commercial building (Dollar General). Any hazardous materials used or sold during operation of the proposed project would be transported, used, stored, and disposed in accordance with existing regulations and product labeling, thereby minimizing the hazard to the public or to the environment. If storage of hazardous materials exceeding specific quantities (see subsection on State Regulations above) occurs during project operation, the project would be required to comply with existing hazardous materials regulations including preparation of an HMBP, as enforced by the El Dorado County Department of Environmental Management. The purpose of the HMBP is to ensure that employees are adequately trained to handle hazardous materials and provides information to the El Dorado County Fire District should emergency response be required.

The routine transportation, use, and disposal of hazardous materials during construction and operation may pose health and safety hazards to workers if the hazardous materials are improperly handled, or to nearby residents and the environment if the hazardous materials are accidentally released into the environment. The routine handling and use of hazardous materials by workers would be performed in accordance with OSHA regulations, which include training requirements for workers and a requirement that hazardous materials are accompanied by manufacturer's Safety Data Sheets. Cal/OSHA regulations include requirements for protective clothing, training, and limits on exposure to hazardous materials. Compliance with these existing regulations would ensure that workers and nearby residents are protected from exposure to hazardous materials that may be transported, stored, or used on site.

Compliance with the existing regulations for hazardous materials discussed above would ensure that the potential impacts related to the routine transport, use, storage, or disposal of hazardous materials, or the accidental release of hazardous materials, would be **less than significant**.

Impact 3.8-2

The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

There are no schools located within 0.25-mile of the project site. There is a childcare facility located approximately 100 feet to the west of the project site. The project would not emit hazardous emissions or handle acutely hazardous materials, substances, or waste. As described under Impact 3.8-1, the construction and operation of the project would involve the use of hazardous materials (e.g., fuels, oils and solvents during construction, and cleaning supplies during operation). The project would be required to ensure that these materials are transported, used, stored, and disposed handled in accordance with county, State, and federal regulations. For these reasons, the potential for the proposed project to create a hazard to schools through the handling of hazardous materials would be **less than significant**.

Impact 3.8-3

The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The development of the proposed retail commercial building (Dollar General) and associated parking lot would not physically interfere with or impair implementation of the El Dorado County Local Hazard Mitigation Plan. The development of the proposed project would not alter roadways in the vicinity of the project site, including Highway 49, and therefore would not interfere with evacuation. The proposed commercial business would allow for adequate emergency ingress/egress and drive-aisle widths for interior circulation. Refer to Section 3.12 for the analysis of transportation impacts. Therefore, the potential for the proposed project to impair implementation or physically interfere with an adopted emergency response or emergency evacuation plan would be **less than significant**.

Impact 3.8-4

The project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The degree of hazard in wildland areas depends on weather conditions (i.e., temperature, wind, and moisture), drought conditions, types and density of vegetation, slope steepness, accessibility to human activities, accessibility of firefighting equipment, and fuel clearance around structures. The project site is in an area of very high hazard for wildland fire pursuant to Figure 5.8-4 of the 2004 General Plan Draft EIR. As noted under Wildland Fire Conditions above, the project site and surrounding areas are mapped as a high fire hazard severity zone in a state responsibility area (CAL FIRE 2020).

The project site is located adjacent to Highway 49 and the surrounding topography is relatively flat. Therefore, the project site is readily accessible to firefighting equipment. Construction activities on the project site would be required to comply with the CAL FIRE requirements for the prevention of wildland fires during construction. The El Dorado County Fire District has reviewed the proposed project and did not identify significant wildfire hazards particular to this site that would not be addressed by the California Fire Code and County requirements. The Fire District provided conditions of approval (COAs) regarding fire flow, vegetation and fuel modification, and sprinkler and fire alarm requirements, which are to be incorporated into the permit approvals. Based on the Fire District's review, the implementation of the COAs would provide sufficient fire protection systems, and a Fire Safe Plan is not

required (McKay 2020). Vegetation management and operational activities on the project site would be required to comply with Chapter 8.09 (Vegetation Management and Defensible Space) of the El Dorado County Code to reduce the risk of wildfires.

Compliance with local and State requirements related to wildland fires would reduce the potential of the proposed project to expose people or structures to a significant risk of loss, injury or death involving wildland fires to **less than significant**. Impacts related to wildland fires are also discussed in Chapter 3.14, Wildfire.

3.8.5 Cumulative Impacts

The geographic scope for hazards and hazardous materials is the project site and the two cumulative projects in the vicinity (Project 1 and Project 2, as described in Section 3.0). Hazards and hazardous materials impacts are generally site-specific and/or have limited mobility. Project 1 would involve improvements to existing structures at the 76 gas station located approximately 400 feet southwest of the project site. Project 1 is located at a site with prior contamination, as discussed in Section 3.8.1. The site has been remediated and Project 1 would not require ground disturbance or alter the storage, use, or transport of hazardous materials on the 76 gas station site. Therefore, Project 1 would not have the potential to contribute to a cumulative hazards or hazardous materials impact. Project 2 would develop a cellular tower 2 miles east of the project site. Due to its distance from the project site, the development of a cellular tower would not have the potential to contribute to any cumulative hazardous materials impacts. Therefore, the cumulative impact related to hazardous materials would be **less than significant**.

Both cumulative projects would not alter or block roadways, or involve modifications that could otherwise interfere with the implementation of an emergency response or emergency evacuation plan. The proposed project and cumulative projects, including any proposed utility connections, are subject to review by the El Dorado County Fire District and must comply with any COAs required by the Fire District. The proposed project and cumulative projects would be required to adhere to all fire prevention and protection regulations including Chapter 8.08 (Fire Prevention) and Chapter 8.09 (Vegetation Management and Defensible Space) of the County Code and with the California Fire Code, including requirements for the maintenance of defensible space around the structures on properties. Compliance with existing regulations would reduce the potential cumulative impact related to the exposure of people or structures to wildfire risk to **less than significant**.

3.8.6 Mitigation Measures

No mitigation measures are required.

3.8.7 References

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3.9 Hydrology and Water Quality

This section describes the existing hydrology and water quality conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to the implementation of the proposed project. The analysis related to hydrology and water quality is partly based on information provided in the following report:

Preliminary Geotechnical Interpretive Report, prepared by Woodcrest Companies, dated September 27, 2019 (Appendix G).

No public comments related to hydrology were received in response to the circulation of the Notice of Preparation (Appendix B).

3.9.1 Environmental Setting

Regional Watershed

The proposed project is located in the Upper American River Watershed, a 1,850 square mile region within Placer and El Dorado County. The Upper American River Watershed originates at the crest of the Sierra Nevada just west of Lake Tahoe, within Tahoe and El Dorado National Forest boundaries. Vegetation in the upper watershed consists mostly of mixed conifer and montane hardwood transitioning to oak woodland as the elevation decreases (Sacramento River Watershed Program 2020).

The American River is the principal waterway for the watershed and is comprised of three forks within El Dorado County: the North, Middle, and South Fork. The project site is located approximately 2 miles to the southeast of the converging point of the Middle Fork with the North Fork. Downstream, the North Fork feeds into Folsom Lake. Major streams in the watershed are the Rubicon River, Duncan Creek, Long Canyon Creek, and Silver Creek. The main reservoirs and lakes in the watershed are French Meadows, Hell Hole, Union Valley, Ice House, Lake Valley, Loon Lake, Silver Lake, Slab Creek, and Stumpy Meadows. Like most major western U.S. rivers, the American River has been extensively dammed and diverted for hydroelectricity production. There are five power plants on the Middle Fork and 11 on the South Fork (Sacramento River Watershed 2020).

Topography and Drainage

The 1.68-acre project site is undeveloped and has gently sloping to flat topography. Elevations at the site range from approximately 1,525 to 1,555 feet above mean sea level (amsl), for a difference of about 30± feet across the entire site. The site is bordered to the north by Northside Drive, to the west by State Route 49 (SR 49), and to the east and south by vacant, undeveloped, and/or moderately disturbed parcels. The center of the site has previously been graded, and most of the on-site vegetation consists of annual weeds/grasses, along with small to large trees scattered throughout the subject site (see **Figure 2-2**).

Drainage within the subject property generally sheet flows to the southwest, infiltrating into the underlying permeable soil, discharging into storm drains located on Northside Drive, and/or flowing onto SR 49. Stormwater on SR 49 appears to sheet flow along the roadside before discharging into a storm drain culvert located immediately north of the Northside Drive and SR 49 intersection.

Surface Water Quality

In accordance with State policy for water quality control, the Central Valley Regional Water Quality Control Board (CVRWQCB), among various other agencies, regulates water quality within the Upper American River Watershed. Water quality objectives, plans, and policies for the surface waters within this region are established in the Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin (Basin Plan) (CVRWQCB 2018). This Basin Plan has identified existing and potential beneficial uses supported by key water drainages within the Upper American River Watershed. The existing and proposed beneficial uses of the Upper American River Watershed is shown in Table 3.9.1, Beneficial Uses.

Surface Water Quality Impairment and Total Maximum Daily Loads

In general, water quality in the American River is considered to be very good from its headwaters to its confluence with the Sacramento River. Streams in the Upper American Watershed are typically clear, cold streams that are naturally highly oxygenated, low in dissolved ions and nutrients, and exhibit low instream plant or algal growth. However, erosion from land-use activities (past and present), roads, and recreational use throughout the watershed contribute to instream sediment problems (Sacramento River Watershed 2020). As such, receiving water quality in the Upper American River Watershed is threatened by urbanization and stormwater runoff. Stream channels that have been altered for flood control purposes, riparian forests have been converted to urban land uses, and impervious surfaces have been constructed, limiting stormwater infiltration opportunities and increasing peak runoff rates. Stormwater runoff may convey trash, sediments, nutrients, pesticides, and metals directly into receiving waters.

Land use activities that cause erosion have also increased the delivery of toxic substances into local waterways. Water quality impairment, as defined in the Clean Water Act (CWA) Section 303(d), for the Upper American River Watershed, are identified in Table 3.9-2, Water Quality Impairments. These impaired bodies are listed as Category 5 in the State Water Resource Control Board (SWRCB) Integrated Report, which includes waters where at least one beneficial use is not supported, and a Total Maximum Daily Load (TMDL) is required. Waters in the County are impaired with a wide variety of point-source (e.g., industrial process water discharges, cleanup sites, sewer system overflows) and nonpoint-source (e.g., agricultural runoff, urban runoff/storm sewers, construction/land development) pollutants.

Sedimentation/siltation (e.g., high turbidity) has been included as a water quality impairment under CWA Section 303(d). Erosion, sediment transport, and sedimentation are natural fluvial processes and are only considered a water quality issue when anthropogenic activities cause excessively high erosion and turbidity beyond natural background levels (i.e., to the degree that they cause the loss or impairment of beneficial uses). In earthen-engineered channels, urbanization and channelization have increased the quantity of sediment transported and sediment buildup in maintained flood control facilities. However, such sediment buildup is managed through routine maintenance and natural processes. Sedimentation basins capture sediment-laden runoff from upstream sources and filter out sediment loads in surface runoff, thus decreasing the turbidity of stormwater flows downstream. Generally, issues related to increased surface water flow and sedimentation include increased stream erosion, which has threatened homes, utilities, and other structures; impacts to biological species and habitats; and loss of channel hydraulic capacity.

Table 3.9-1. Beneficial Uses

Surface Water Bodies	MUN	AGR		PRO	IND	POW	REC-1		REC-2	WARM	COLD	MIGR		SPWN		WILD	NAV
	Municipal and Domestic Supply	*Irrigation*	*Stock Watering*	*Process*	*Service Supply*	*Power*	*Contact*	*Canoeing And Rafting (1)*	*Other Noncontact*	*Warm*	*Cold*	*Warm (3)*	*Cold (4)*	*Warm (3)*	*Cold (4)*	*Wildlife Habitat*	*Navigation*
American River																	
North Fork, Source to Folsom Lake	E	E					E	E	E	P	E				E	E	
Middle Fork, Source to Folsom Lake	E	E	E			E	E	E	E	P	E				E	E	
South Fork																	
Folsom Lake	E	E			P	E	E		E	E	E			E		E	

Source: CVRWQCB 2018

Legend:

MUN Municipal and Domestic Supply
AGR Agricultural Supply
IND Industrial Service Supply
PRO Industrial Process Supply
FRSH Freshwater Replenishment
NAV Navigation
POW Hydropower Generation
REC-1 Water Contact Recreation
REC-2 Non-contact Water Recreation
COMM Commercial and Sport Fishing
WARM Warm Freshwater Habitat
COLD Cold Freshwater Habitat
WILD Wildlife Habitat
MIGR Migration of Aquatic Organisms
SPWN Spawning, Reproduction, and/or Early Development
E Existing Beneficial Uses
P Potential Beneficial Uses

Table 3.9-2, Water Quality Impairments

Water Body	2014 and 2016 303(d) List of Water Quality Impairments (Included under SWRCB Integrated Report Category 5)
American River, Lower (Nimbus Dam to confluence with Sacramento River)	Bifenthrin; Indicator Bacteria; Mercury; PCBs; Pyrethroids; Toxicity
American River, North Fork	Mercury
American River, South Fork (below Slab Creek Reservoir to Folsom Lake)	Mercury
Hell Hole Reservoir	Mercury
Loon Lake	Mercury
Slab Creek Reservoir (El Dorado County)	Mercury

Source: SWRCB 2017
Notes: PCBs = Polychlorinated biphenyl.

Local Geologic and Groundwater Conditions

The Preliminary Geotechnical Interpretive Report conducted by Woodcrest Companies (Appendix G) indicated that the project site is underlain primarily by artificial fill and bedrock. Undocumented artificial fill materials were encountered throughout the site at depths of up to about 2 feet below the ground surface. The artificial fill materials were generally inconsistent, poorly consolidated clayey sands and clays. Mesozoic metasedimentary rocks were located beneath the artificial fill materials. The report also notes that no groundwater was encountered during subsurface explorations of the site to the maximum depth explored of 5 feet.

The Department of Water Resources (DWR), *California's Groundwater* (Bulletin 118), is the State's official publication on the occurrence and nature of groundwater in California. The publication defines the boundaries and describes the hydrologic characteristics of groundwater basins within California. Bulletin 118 also provides information on groundwater management and recommendations for the future (DWR 2020a). According to DWR Groundwater Basin Boundary Assessment Tool, no defined groundwater basins underly the project site (DWR 2020b).

Flood Hazards

Flood hazards may occur in El Dorado County from flooding caused by precipitation, dam failure, and seismic activities. Flood hazards can result from heavy rainfall, snowmelt, cloudbursts, or from the failure of a water impoundment structure, such as dams and levees. Floods from rainstorms generally occur between November and April and are characterized by high peak flows of moderate duration. Snowmelt floods combined with rain have larger volumes and last longer than rain flooding. However, because El Dorado County is mainly comprised of upland areas outside of floodways, most of the County is not subject to flooding (County of El Dorado 2003a).

The Federal Emergency Management Agency (FEMA) has prepared Flood Insurance Rate Maps (FIRMs) for most of El Dorado County. These maps delineate the areas of known special flood hazards and associated applicable risks to the community. According to FEMA Flood Map #06017C0175E, effective on September 26, 2008, the project site is located within Zone X (Unshaded), Area of Minimal Flood Hazard (FEMA 2020a). Zone X is considered to be an area outside of a Special Flood Hazard Area and higher than the elevation of the 0.2% annual (500-year) chance flood (FEMA 2020b). As such, the potential for on-site flooding is low.

Dam Inundation

A dam failure can occur due to an earthquake, an isolated incident because of structural instability, or during heavy runoff that exceeds spillway design capacity. According to DWR, El Dorado County does not have a history of major dam failure. Nine dams located within the County have been identified as having the potential of inundating habitable portions of the County in the unlikely event of dam failure. These nine dams are Echo Lake Dam, Union Valley Dam, Ice House Dam, Chili Bar Reservoir, Stumpy Meadows Dam, Weber Creek Dam, Slab Creek Dam, Loon Lake Auxiliary Dam, and Blakely Dam. According to Attachment A: *Dam Failure Inundation Zone Maps,* of Appendix D, *General Plan Insert*s, of the *County of El Dorado Final Environmental Impact Report of the General Plan*, the project site is not located within a dam inundation zone (County of El Dorado 2003b)

Water Supply

The Georgetown Divide Public Utility District (GDPUD) is the domestic water purveyor for a 270 square mile unincorporated portion of El Dorado County. The service area of GDPUD is bound to north and west by the drainage basins of the Middle Fork and Rubicon River, to the south by the South Fork, and to the east by the Sacramento-El Dorado County boundary. Communities located in this region include Georgetown, Buckeye, Garden Valley, Kelsey, Spanish Dry Diggins, Greenwood, Pilot Hill, and Cool, where the project site is located (GDPUD 2016).

The primary source of water to GDPUD is the Stumpy Meadows Reservoir, which has a storage capacity of 20,000 Acre-Feet (AF), but a sustainable yield is 12,200 AF per year. According to GDPUD 2015 Urban Water Management Plan (UWMP), the Stumpy Meadows is projected to reliably and sustainably meet the water demands of the service area of GDPUD in normal years till 2035 and in dry years until the year 2030. Past 2030, GDPUD would look for additional sources to meet the water demand. Groundwater supplies in GDPUD's service area are highly variable in regards to water quantity and quality and thus are an uncertain source for large-scale residential development. As such, GDPUD has no plans to use groundwater as a source of water to supplement the surface water sources (GDPUD 2016).

3.9.2 Regulatory Setting

Federal Regulations

Clean Water Act

Increasing public awareness and concern for controlling water pollution led to the enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as the CWA (33 USC 1251 et seq.). The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States. The CWA established basic guidelines for regulating discharges of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA.

Section 402—NPDES Permits for Stormwater Discharge

The CWA was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. The NPDES permit program, as authorized by Section 402 of the CWA, was established to control water pollution by regulating point sources that discharge pollutants into waters of the United States (33

USC 1342). In the State of California, the U.S. Environmental Protection Agency (USEPA) has authorized the SWRCB with permitting authority to implement the NPDES Program.

Regulations (Phase II Rule) that became final on December 8, 1999, expanded the existing NPDES Program to address stormwater discharges from construction sites that disturb land equal to or greater than 1.0 acre and less than 5.0 acres (small construction activity). The regulations also require that stormwater discharges from small Municipal Separate Storm Sewer Systems (MS4) be regulated by a NPDES General Permit for Stormwater Discharges Associated with Construction Activity, Order No. 99-08-DWQ. The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which describes Best Management Practices (BMPs) the discharger would use to protect stormwater runoff. The SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs, and a sediment-monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. On September 2, 2009, the SWRCB issued a new NPDES General Permit for Stormwater Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002), which became effective July 1, 2010.

Federal Antidegradation Policy

The Federal Antidegradation Policy (40 CFR 131.12) requires states to develop statewide antidegradation policies and identify methods for implementing those policies. Pursuant to the Code of Federal Regulations, state antidegradation policies and implementation methods shall, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality where the quality of the waters exceeds levels necessary to support existing beneficial uses unless the State finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

National Flood Insurance Program

FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities complying with FEMA regulations that limit development in floodplains. The NFIP regulations permit development within special flood hazard zones provided that residential structures are raised above the base flood elevation of a 100-year flood event. Non-residential structures are required either to provide flood-proofing construction techniques for that portion of structures below the 100-year flood elevation or to elevate above the 100-year flood elevation. The regulations also apply to substantial improvements to existing structures.

State Regulations

Section 303 of the Clean Water Act (Beneficial Uses and Water Quality Objectives)

The CVRWQCB is responsible for the protection of the beneficial uses of waterways within their jurisdiction. The proposed project is located within the CVRWCQB regulatory boundaries. The CVRWQCB uses its planning, permitting, and enforcement authority to meet its responsibilities adopted in the Basin Plan to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the CVRWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan for the Central Valley has identified existing and potential beneficial uses supported by key surface water drainages throughout its jurisdiction. Under CWA

Section 303(d), the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. A TMDL defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. The CVRWQCB has developed TMDLs for select reaches of water bodies.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (known as the Porter-Cologne Act), passed in 1969, dovetails with the CWA (see discussion of the CWA above). It established the SWRCB and divided the State into nine regions, each overseen by a Regional Water Quality Control Board (RWQCB). SWRCB is the primary State agency responsible for protecting the quality of the State's surface water and groundwater supplies; however, much of the SWRCB's daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing CWA Sections 401, 402, and 303(d). In general, SWRCB manages water rights and regulates statewide water quality, whereas RWQCBs focus on water quality within their respective regions.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California's major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met. Under the Porter-Cologne Act, basin plans must be updated every 3 years.

California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High-Quality Water in California, was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the State (e.g., isolated wetlands and groundwater), not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual basin plans, such high quality shall be maintained, and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resources.

California Toxics Rule

The USEPA has established water quality criteria for certain toxic substances via the California Toxics Rule. The California Toxics Rule established acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water, such as inland surface waters and enclosed bays and estuaries, that are designated by each RWQCB as having beneficial uses protective of aquatic life or human health.

Local Regulations

Grading Erosion and Sediment Control

Chapter 110.14 (Grading, Erosion, and Sediment Control) of the County Code regulates grading within unincorporated areas of El Dorado County in order to protect the public and avoid pollution of watercourses. Chapter 110.14 enforces the procedures in Volume III: Grading, Erosion and Sediment Control of the Design Improvement Standards Manual (Grading Manual) (County of El Dorado 2007). The Grading Manual includes standards for geotechnical, geologic, drainage, and soil studies that are required for development projects.

The Grading Plan must be prepared by a professional civil engineer. An Erosion and Sediment Control Plan (ESCP) must also be submitted whenever:

1. The graded portion of the site includes more than 10,000 square feet of area for a non-agricultural grading project or more than one acre of area for an agricultural grading project.
2. There is a significant risk that more than 2,500 square feet will be unprotected or inadequately protected from erosion during any portion of the rainy season.
3. Grading will occur within 20 feet of any pre-existing watercourse.
4. Grading would occur within the 100-year event flood plain.
5. The Director determines that the grading could potentially result in significant erosion or sediment discharge.

The erosion and sediment control plan must be designed to prevent increased discharge of sediment at all stages of grading and development, from initial disturbance of the ground to project completion, and shall be consistent with all local, State, and Federal rules and regulations. It must include an effective revegetation program to stabilize all disturbed areas that will not be otherwise protected.

El Dorado County Storm Water Quality

On May 19, 2015, the El Dorado County Board of Supervisors formally adopted revisions to the Storm Water Quality Ordinance (Ordinance 4992). Previously applicable only to the Lake Tahoe Basin, the ordinance establishes legal authority for the entire unincorporated portion of the County. The purpose of the ordinance is to 1) protect the health, safety, and general welfare, 2) enhance and protect the quality of Waters of the State by reducing pollutants in stormwater discharges to the maximum extent practicable and controlling non-stormwater discharges to the storm drain system, and 3) cause the use of BMPs to reduce the adverse effects of polluted runoff discharges on Waters of the State.

On-site Wastewater Treatment Systems

Chapter 110.32 (Onsite Wastewater Treatment Systems) of the County Code establishes standards for the siting, design, installation, operation, and maintenance of on-site wastewater treatment systems (also known as "septic systems") in the County. These standards are consistent with the water quality control policy for siting, design, operation, and maintenance of on-site wastewater treatment systems adopted by the SWRCB pursuant to SWRCB Resolution 2012-0032. These standards are intended to prevent the creation of health hazards and nuisance conditions and protect surface water and groundwater quality.

The El Dorado County Environmental Management Division administers and enforces requirements for septic systems. Chapter 110.32 enforces the El Dorado County Local Agency Management Plan (LAMP) (County of El Dorado 2018a) and the Standards for the Site Evaluation, Design, and Construction of Onsite Wastewater Treatment Systems (OWTS Manual) (County of El Dorado 2018b). A LAMP is a customized septic systems management program developed by local agencies to address the soil and groundwater conditions specific to the local jurisdiction. Local agencies can review and approve septic systems after approval of the LAMP by the local RWQCB. The OWTS Manual contains standards and specifications for the siting, design, installation, operation, and maintenance of septic systems, including the prepared design standards for septic tanks, drain lines, disposal fields, and any other facilities associated with the septic system. The county building permit process requires the Environmental Management Division input during key stages of septic system design and installation, including but not limited to, site evaluation, percolation testing, and septic system installation.

2004 El Dorado County General Plan

The Land Use Element of El Dorado County General Plan contains goals and policies related to water supply and water quality protection. In addition, the Public Services and Utilities Element, the Public Health, Safety, and Noise Element, and the Conservation and Open Space Element contain goals and policies related to stormwater and flood infrastructure, mitigation of flood hazards, and preservation of water supply and quality, respectively (County of El Dorado 2019). The following policies apply to the proposed project:

- **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 would support a higher density or intensity zoning district. The specific criteria to be considered include, but are not limited to, the following:
  - Availability of an adequate public water source or an approved Capital Improvement Project to increase service for existing land use demands;
  - Availability and capacity of the public treated water system;
  - Erosion hazard;
  - Septic and leach field capability;
  - Groundwater capability to support wells; and
  - Proximity to a perennial watercourse.

- **Policy 2.2.5.14.** Buffers shall be established around future water supplies and other public facilities to protect them from incompatible land uses. Such buffer lands should be contained on-site where possible.
- **Policy 2.4.1.5.** The County shall implement a program to promote infill development in existing communities.
  - Approval of a project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
  - All required utilities and public services can adequately serve the site.

- **Goal 5.4: Storm Drainage.** Manage and control stormwater runoff to prevent flooding, protect soils from erosion, prevent contamination of surface waters, and minimize impacts to existing drainage infrastructure.
  - **Objective 5.4.1. Drainage And Flood Management Program.** Initiate Countywide 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 the potential for flood hazard or damage on either adjacent, upstream, or downstream properties, minimize impacts to existing facilities, meet the 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.
    - **Policy 5.4.1.3.** The County will evaluate the funding requirements for a maintenance, operation, and Infrastructure replacement program for regionally effective stormwater drainage management.

- **Goal 6.4. Flood Hazards.** Protect the residents of El Dorado County from flood hazards.
  - **Objective 6.4.1. Development Regulations.** Minimize loss of life and property by regulating development in areas subject to flooding in accordance with FEMA guidelines, California law, and the El Dorado County Flood Damage Prevention Ordinance.
    - **Policy 6.4.1.1.** The County shall continue participation in the NFIP and application of floodplain zoning regulations.
    - **Policy 6.4.1.2.** The County shall identify and delineate flood-prone study areas discovered during the completion of the master drainage studies or plans.
    - **Policy 6.4.1.4.** Creation of new parcels that lie entirely within the 100-year floodplain as identified on the most current version of the flood insurance rate maps provided by FEMA or dam failure inundation areas delineated in dam failure emergency response plans maintained by the County shall be prohibited.
    - **Policy 6.4.1.5.** New parcels which are partially within the 100-year floodplain or dam failure inundation areas as delineated in dam failure emergency response plans maintained by the County must have sufficient land available outside the FEMA or County designated 100-year floodplain or the dam inundation areas for construction of dwelling units, accessory structures, and septic systems. Discretionary applications shall be required to determine the location of the designated 100-year floodplain and identified dam failure inundation areas on the subject property.
  - **Objective 6.4.2. Dam Failure Inundation.** Protect life and property of County residents below dams.
    - **Policy 6.4.2.1.** Apply a zoning overlay for areas located within dam failure inundation zones identified by the DWR Division of Safety of Dams.
- **Goal 7.3. Water Quality and Quantity.** Conserve, enhance, and manage water resources and protect their quality from degradation.
  - **Objective 7.3.1. Water Resource Protection.** Preserve and protect the supply and quality of the County's water resources, including the protection of critical watersheds, riparian zones, and aquifers.
    - **Policy 7.3.1.1.** Encourage the use of BMPs, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.
    - **Policy 7.3.1.2.** Establish water conservation programs that include both drought-tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.
    - **Policy 7.3.1.3.** The County shall develop the criteria and draft an ordinance to encourage domestic gray water for landscape irrigation purposes. (See Title 22 of the State Water Code and the Graywater Regulations of the Uniform Plumbing Code).
  - **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 and Sediment Control Plan 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 stormwater in accordance with the recommendations of the Storm Water Quality Task Force's California Storm Water Best Management Practices Handbooks.

- **Policy 7.3.2.4.** The County should evaluate feasible alternatives to the use of salt for ice control on County roads.
- **Policy 7.3.2.5.** As a means to improve the water quality affecting the County's recreational waters, enhanced and increased detailed analytical water quality studies and monitoring should be implemented to identify and reduce point and non-point pollutants and contaminants. Where such studies or monitoring reports have identified pollution sources, the County shall propose means to prevent, control, or treat identified pollutants and contaminants.

- **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 7.3.5. Water Conservation.** Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems are designed to reclaim and reuse treated wastewater on agricultural crops and other irrigation and wildlife enhancement projects.
  - **Policy 7.3.5.1.** Drought-tolerant plant species, where feasible, shall be used for landscaping of commercial development. Where the use of drought-tolerant native plant species is feasible, they should be used instead of non-native plant species.
  - **Policy 7.3.5.2.** A list of appropriate local indigenous drought-tolerant plant materials shall be maintained by the County Planning Department and made available to the public.
  - **Policy 7.3.5.3.** The County Parks and Recreation Division shall use drought-tolerant landscaping for all new parks and park improvement projects.
  - **Policy 7.3.5.4.** Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.
  - **Policy 7.3.5.5.** Encourage water reuse programs to conserve raw or potable water supplies consistent with State Law.

Storm Water Management Plan for Western El Dorado County (SWMP)

El Dorado County developed this Storm Water Management Plan (SWMP) to describe the minimum procedures and practices the County uses to reduce the discharge of pollutants to storm drainage systems owned or operated by the County. The SWMP addresses stormwater pollution control related to project planning, design, construction, and maintenance activities throughout the unincorporated area of Western El Dorado County (that portion of El Dorado County within the jurisdiction of the CVRWQCB, excluding the Tahoe Basin). In addition, the SWMP addresses assignment of responsibilities within the County for implementing stormwater management procedures and practices and training, public education and outreach, monitoring and research, program evaluation, and reporting activities (County of El Dorado 2004).

3.9.3 Thresholds of Significance

The proposed project would have a potentially significant impact on the environment if it would:

1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
   i) result in substantial erosion or siltation on- or off-site;
   ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
   iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
   iv) impede or redirect flood flows.
4) Be inundated by a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.9.4 Impact Analysis

Impact 3.9-1

The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Construction

The proposed project would result in the development of a 9,100 SF, single-story commercial retail building on a previously disturbed, 1.68-acre parcel. Ground disturbance activities would include grading, importing fill material, installing utilities, surfacing the associated parking lot, and the construction of the proposed building (see Figure 2-3, Site Plan). As such, the implementation of the project would represent a more intensive use of land compared to existing conditions.

The analysis of potential impacts of construction activities, construction materials, and non-stormwater runoff on water quality during the site clearing and construction phase focuses primarily on sediment and certain non-sediment-related pollutants. Construction-related activities that primarily result in sediment releases are related to exposing previously stabilized soils to potential erosion by rainfall/runoff and wind. Such activities include the removal of impervious surfaces and grading of the site. Environmental factors that affect erosion include topography, soil, and rainfall characteristics. Erosion and sedimentation affect water quality and interferes with photosynthesis; oxygen exchange; and the respiration, growth, and reproduction of aquatic species. Additionally, other pollutants, such as nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported to downstream drainages, including the North and Middle Fork of the American River, which could contribute to the degradation of water quality. Furthermore, during grading and

temporary stockpiling of soil, there is the potential for soil migration off-site via wind (Section 3.2, Air Quality, for further discussion of construction generated air quality impacts).

Non-sediment-related pollutants that are also of concern during construction include construction materials (e.g., paint, stucco); chemicals, liquid products, and petroleum products used in building construction or the maintenance of heavy equipment; and concrete-related pollutants.

The County of El Dorado is a co-permittee under the El Dorado County Municipal Phase II NPDES Small MS4 Permit. The MS4 Permit requires the County to enact construction-related BMPs to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters (CVRWQCB 2013). To comply with the provisions of the MS4 Permit, the County of El Dorado requires the implementation of an ESCP prior to permit issuance for building, grading, or land clearing activities. The ESCP must be consistent with the General Plan, any Specific Plans, the SWMP, and applicable County of El Dorado ordinances (County of El Dorado 2020).

To fulfill the regional requirements of the ESCP as well as ensure that the proposed project would not result in the incidental release of pollutants during construction activities, the Applicant would comply with the provisions of the NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002), also known as the Construction General Permit. Because the proposed project is greater than 1 acre in size, the Applicant would be required to submit a Notice of Intent to the CVRWQCB in order to obtain approval to complete construction activities under the Construction General Permit. This Permit would include a number of design, management, and monitoring requirements for the protection of water quality and the reduction of construction phase impacts related to stormwater (and some non-stormwater) discharges. Permit requirements would include the preparation of a SWPPP, implementation and monitoring of BMPs, implementation of best available technology for toxic and non-conventional pollutants, implementation of best conventional technology for conventional pollutants, and periodic submittal of performance summaries and reports to the CVRWQCB. The SWPPP would apply to the project and would include reference to the major construction areas, materials staging areas, and haul roads. Typical BMPs that could be incorporated into the SWPPP to protect water quality include the following:

- Diverting off-site runoff away from the construction site
- Vegetating landscaped/vegetated swale areas as soon as feasible following grading activities
- Placing perimeter straw wattles to prevent off-site transport of sediment
- Using drop inlet protection (filters and sandbags or straw wattles), with sandbag check dams within paved areas
- Regular watering of exposed soils to control dust during construction
- Implementing specifications for construction waste handling and disposal
- Using contained equipment wash-out and vehicle maintenance areas
- Maintaining erosion and sedimentation control measures throughout the construction period
- Stabilizing construction entrances to avoid trucks from imprinting soil and debris onto adjoining roadways
- Training, including for subcontractors, on general site housekeeping

Incorporation of required BMPs for materials and waste storage and handling, and equipment and vehicle maintenance and fueling would reduce the potential discharge of polluted runoff from construction sites, consistent with the State NPDES General Construction Permit, SWMP, and County of El Dorado Ordinances. Compliance with existing regulations would prevent violation of water quality standards and minimize the potential for contributing sources of polluted runoff. Compliance with existing regulations would ensure that the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface quality from

construction activities. Therefore, short-term construction impacts associated with water quality standards and waste discharge requirements would be **less than significant**.

Operation

As previously discussed, the project site currently consists of a moderately disturbed, 1.68-acre parcel. Implementation of the proposed project would result in the development of a 9,100 SF, single-story commercial retail building, the construction of a 31 vehicle parking lot, a refuse enclosure for solid waste, landscaped areas, an on-site septic to the northeast of the proposed building, and an on-site retention basin (see Figure 2-3, Site Plan). As such, operations of the project site could contribute operational pollutants to stormwater runoff from uncovered parking areas (through small fuel and/or fluid leaks), uncovered refuse storage/management areas, landscape/open space areas (if pesticides/herbicides and fertilizers are improperly applied), and general litter/debris.

During storm events, pollutants from paved areas without proper stormwater controls and BMPs could be conveyed off-site before eventually being discharged into the North or Middle Fork of the American River. Most pollutants flowing off-site in this manner would be dust, litter, and possibly residual petroleum products (e.g., motor oil, gasoline, diesel fuel). Certain metals, along with nutrients and pesticides from landscape areas, can also be present in stormwater runoff. Between periods of rainfall, surface pollutants tend to accumulate, and runoff from the first significant storm of the year ("first flush") would likely have the largest concentration of pollutants. Untreated runoff could be transported to the North or Middle Fork of the American River and could contribute to the degradation of water quality as well as impair established beneficial uses. As indicated in Table 3.9-2, Water Quality Impairments, the North and Middle Fork of the American River are impaired with mercury.

As previously discussed, the County of El Dorado is a co-permittee under the County of El Dorado Phase II Small MS4 Permit. The MS4 Permit requires the County to implement a Post-Construction Storm Water Management Program for all Regulated Projects, as defined in the Phase II Small MS4 Permit, and consistent with the SWMP for Western El Dorado County (CVRWQCB 2013; County of El Dorado 2004). Regulated Projects are those that create or replace 5,000 square feet or more of impervious surface.

The Post-Construction Program sets limits on pollutants being discharged into waterways and requires all new development to incorporate structural and non-structural BMPs to improve water quality and reduce on- and off-site runoff potential. Regulated Projects are required to retain and treat runoff generated by the 85th percentile 24-hour stormwater runoff events by implementing appropriately sized LID features, including infiltration, evapotranspiration, and/or harvesting/reuse treatment systems (County of El Dorado 2015).

Post-construction, the project would be designed to sheet flow runoff away from the proposed building and into a retention basin located to the northwest of the site. This feature would be sized to retain and treat on-site stormwater generated by the 85th percentile 24-hour storm event in accordance with the Post-Construction Program guidelines. This feature would be also be designed to settle any entrained runoff pollutants, reducing the potential for off-site water quality degradation. Any runoff in excess of the designed storage capacity of the facility would drain at a managed rate into the existing stormwater collection system via a storm drain outlet located at the northern end of the basin.

Implementation of these LID features and BMPs would, to the maximum extent practicable, reduce the discharge of pollutants into receiving waters, including the inadvertent release of pollutants (e.g., hydraulic fluids and petroleum) and trash and debris in accordance with all relevant local and State development standards. Project

source controls to improve water quality would also be provided for outdoor material storage areas, outdoor trash storage/waste handling areas, and outdoor loading/unloading areas.

The final design of the proposed septic system would undergo full review in accordance with Chapter 110.32 (Onsite Wastewater Treatment Systems) of the El Dorado County Code and with the associated LAMP and OWTS Manual (El Dorado County 2018a and 2018b). As part of the County's permitting and inspection process, a site evaluation that includes a percolation rate test and soil profile test would be conducted to ensure that the septic system proposed is appropriate for the project site. Compliance with existing regulations pertaining to septic systems would reduce the potential of the proposed project to develop a septic system in soils incapable of adequately supporting such a system. Therefore, long-term operational impacts associated with water and groundwater quality standards and waste discharge requirements would be **less than significant**

Impact 3.9-2

The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

Groundwater Recharge

A Preliminary Geotechnical Interpretative Report of the project site (Appendix G) determined that the on-site earth materials were primarily comprised of a shallow layer of artificial fill that was underlain by moderately hard to hard bedrock. Subsurface explorations conducted as part of the preliminary study did not encounter groundwater to the maximum depth explored of 5 feet. Bedrock units typically lack the porosity and permeability to conduct a substantial amount of groundwater. Moreover, according to DWR Groundwater Basin Boundary Assessment Tool, no defined groundwater basins underly the project site (DWR 2020b). Regardless, development of the site would result in a moderate increase in impermeable surfaces, which could impede existing groundwater recharge rates. However, the project would incorporate LID BMP features, including a retention basin and landscaped areas, to retain and infiltrate runoff generated by an 85th percentile 24-hour storm event to the greatest extent feasible. As such, with the implementation of LID BMP features, local recharge rates would not substantially decrease compared to existing conditions. As a result, impacts would be **less than significant**.

Groundwater Supply

As previously discussed, the project site would be served by the GDPUD. According to the GDPUD 2015 UWMP, water supply for the district is sourced entirely from the Stumpy Meadow Reservoir, which can reliably serve GDPUD's service area in normal years till 2035 and in dry years until 2030. Past 2030, GDPUD would look for additional sources to meet the water demands of the region. However, GDPUD has no plans to use groundwater as a future source, as local rock compositions lack the groundwater storage capacity and quality needed to meet regional demands. Moreover, the project would incorporate LID BMP features to infiltrate runoff to the greatest extent feasible. As such, the proposed project would not substantially decrease groundwater supplies or impede a sustainable groundwater management plan. **No impacts** would occur.

Impact 3.9-3

The project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) **result in substantial erosion or siltation on or off site;**

Currently, runoff from the proposed project site either sheet flows into unpaved land, discharges into existing storm drains along Northside Drive, or is conveyed along the roadside of the SR 49 to a storm drain culvert just north of the intersection between Northside Drive and SR 49. The development of the project site would somewhat alter internal drainage patterns and result in an increase in impervious surfaces. This increase in impervious surfaces could increase localized on- and off-site runoff into nearby unpaved land, nearby waterways, or into the municipal storm drains. However, the proposed project would incorporate LID BMP features, such as a retention basin designed to capture and infiltrate runoff generated by the 85th percentile 24-hour rainfall event. The retention basin would be designed to slow runoff, allowing any suspended solids to settle and reducing the erosive capabilities of the stormwater. Any stormwater in excess of the retention basin storage capacity would drain at a managed rate into the existing storm drain system via a storm drain outlet located at the north end of the basin. As such, substantial erosion or siltation on- or off-site due to increased runoff would not occur, and Project impacts would be **less than significant**.

ii) **substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;**

Runoff occurs when there is more water than land can absorb. An increase in impermeable surfaces reduces the underlying soils' ability to absorb water, decreasing localized groundwater recharge rates and increasing runoff volumes. As previously discussed in Threshold 2 (i), the development of the proposed project would result in a moderate increase in impermeable surfaces, which could result in an increase of localized on- and off-site runoff into nearby unpaved land, nearby waterways, or into municipal storm drains. However, the site would incorporate LID BMP features into the project design, which would effectively sheet flow runoff into an on-site retention basin. This retention basin would be designed to retain and treat runoff generated by the 85th percentile, 24-hour storm event. Any stormwater in excess of the retention basin storage capacity would drain at a manageable rate into the existing storm drain system. As such, the development of the project would not result in a substantial rate or amount of runoff, which results in flooding on- or off-site. Impacts would be **less than significant**.

iii) **create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**

As previously discussed in Threshold 1, the proposed project would incorporate LID and BMP features, such as a retention basin, sized to accommodate the 85th percentile, 24-hour storm event. These features would be designed to reduce the potential incidental release of contaminants to the environment, such as oil, grease, nutrients, heavy metals, and certain pesticides, including legacy pesticides. Moreover, stormwater in excess of the capacity of the retention basin would be slowed, allowing for entrained pollutants to settle before being discharged at a manageable rate into the storm drain system. As such, the proposed project would not 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. Therefore, impacts would be **less than significant**.

iv) impede or redirect flood flows

According to FEMA Flood Map #06017C0175E, effective on September 26, 2008, the project site is located within Zone X, an area of minimal flood hazard. This zone is higher in elevation than the 0.2% annual flood chance (i.e., 500-year flood). In addition, as previously discussed, although internal drainage patterns would be somewhat altered as a result of project development, the project would maintain adequate stormwater conveyance as to not result in an increase of surface runoff that would result in flooding on- or off-site associated with the 85th percentile, 24-hour storm event. Therefore, impacts associated with impeding or redirecting flood flows would be **less than significant**.

Impact 3.9-4

The project would not risk release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone.

As previously discussed in Threshold 3 (iii), the project site is in an area of minimal flood hazard and thus has a low potential for flooding. Moreover, according to Attachment A: Dam Failure Inundation Zone Maps, of Appendix D, General Plan Inserts, of the County of El Dorado Final Environmental Impact Report of the General Plan, the project site is not located within a dam inundation zone and thus would not be susceptible to inundation as a result of dam failure (County of El Dorado 2003b). As the project site is not located near the ocean nor an enclosed body of water, such as a lake or reservoir, there is no potential for tsunamis or seiches to affect the project site. As such, there would be **no impact** in regards to releasing pollutants as a result of project inundation.

Impact 3.9-5

The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

As previously discussed, the project would comply with applicable water quality regulatory requirements, including implementation of a SWPPP, stormwater BMPs, and LID design, which would minimize potential off-site surface water quality impacts and contribute to a reduction in water quality impacts within the overall Upper American River Watershed. In addition, with compliance with these regulatory requirements, the project would reduce potential water quality impairment of surface waters such that existing and potential beneficial uses of key surface water drainages downstream steam of the project site, including the Upper and Middle Fork of the American River, would not be adversely impacted. As a result, the project would not conflict with or obstruct the Central Valley Basin Plan with respect to water quality.

With respect the groundwater management, the project site is not located within a regulated groundwater management plan, and GDPUD has no plans to use local or regional groundwater to service its service area. Moreover, the project would not result in a substantial amount of impermeable surfaces such that on-site groundwater recharge rates are substantially affected. Therefore, the project would not conflict with or obstruct any local or regional sustainable groundwater management plans. Impacts would be considered **less than significant**.

3.9.5 Mitigation Measures

No mitigation measures are required.

3.9.6 Significance after Mitigation

No potentially significant impacts were identified and no mitigation measures are required.

3.9.7 Cumulative Impacts

The geographic context for the analysis of cumulative impacts related to storm drainage is the Upper American River Watershed, which is moderately urbanized with impervious surfaces. Cumulative development within the County could potentially increase the number of impervious surfaces that could cause or contribute to storm drain system capacity exceedance, alter the existing storm drain system, and/or require the construction of new or expanded facilities. New development within the watershed would be subject to the environmental review process that would analyze potential impacts associated with stormwater runoff to the storm drain system. New development would be subject to the completion of drainage analyses to ensure that excessive on- or off-site flooding and runoff would not occur. Therefore, potential impacts on drainages associated with the project would not contribute considerably to cumulative impacts.

3.9.8 References

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3.10 Land Use

This section addresses the potential land use impacts associated with the proposed Cool Dollar General (project); discusses the relevant federal, State, and regional regulatory considerations; and evaluates the potential impacts of the project related to land use; and evaluates potential impacts of the project related to changing the existing and land use for the site and the compatibility of the proposed change with surrounding land uses.

There were no public comments related to land use impacts received in response to circulation of the Notice of Preparation (Appendix B).

3.10.1 Environmental Setting

The approximately 1.68-acre project site is located on the East side of Highway 49 (Golden Chain Highway) and the south side of Northside Drive, North of Highway 193 (Georgetown Road) approximately 400 feet, in the community of Cool, El Dorado County, California, as shown in Figure 2-2. The site consists of Assessor's Parcel Number (APN) 071-500-037.

Project Site Land Uses

The review of topographic and satellite maps for the project site completed as part of the Phase I ESA (included in Appendix H of this EIR) indicates that the project site has never been developed for any commercial, retail, or industrial purpose, and there are no permanent structures currently located on the project site. The project site contains a centrally located gravel parking lot, and the remainder of the site consists of undeveloped land. Most of the vegetation on the site consists of moderate amounts of annual weeds/grasses, along with small to large trees, including several oak trees, scattered throughout the subject site (see Figure 2-2 and Figure 2-4).

Land Uses Adjacent to the Project Site

The project site is located in a predominantly commercial/retail corridor of Cool. As described in Chapter 2, Project Description, there is a commercial building north of the project site (across Northside Drive) that includes a restaurant, offices, and a U.S. Post Office, totaling approximately 8,800 square feet (SF) The parcel immediately to the east is vacant, while further east is a cellular tower (approximately 225 feet). To the south is a vacant parcel and then Highway 193. South of Highway 193 is a retail shopping center, anchored by a Holiday Market. To the west, on the other side of Highway 49, is the central commercial area of Cool, which includes several restaurants, retail stores, a feed and ranch supply store, a gas station, auto repair, and a veterinary hospital. Fire Station No. 72 of the El Dorado County Fire Protection District is located northwest of the project site, on St. Florian Ct. The Olmstead Loop Trailhead, part of the Auburn State Recreation Area, is located next to the Fire Station.

General Plan Designation and Zoning

The project site is designated Commercial in the General Plan and is zoned General Commercial-Design Control (CG-DC). Land uses adjacent to the project site are also designated Commercial in the General Plan. The land uses to the north, east, and south are zoned General Commercial-Design Control (CG-DC), while the land uses to the west are designated Community Commercial-Design Control (CC-DC). The project is within a Rural Center (Cool) as designated by the El Dorado County General Plan.

3.10.2 Regulatory Setting

Federal Regulations

There are no federal land use regulations pertinent to the proposed project.

State Regulations

No state regulations are applicable to the analysis of the effects of land use and planning relating to the proposed project.

Local Regulations

County of El Dorado General Plan

California State law requires that each City and County adopt a general plan "for the physical development of the City and any land outside its boundaries which bears relation to its planning." Typically, a general plan is designed to address the issues facing the City or County for the next 15-20 years. The general plan expresses the community's development goals and incorporates public policies relative to the distribution of future public and private land uses. The El Dorado County General Plan was adopted in 2004; the last amendment for the General plan was December 20, 2019 (El Dorado County 2019a).

The following goals, objectives, and policies related to land use are established in the Land Use Element of the El Dorado County General Plan and are applicable to the project.

- **Goal 2.1:** Protection and conservation of existing communities and rural centers; creation of new sustainable communities; curtailment of urban/suburban sprawl; location and intensity of future development consistent with the availability of adequate infrastructure; and mixed and balanced uses that promote use of alternate transportation systems.
    - **Objective 2.1.2:** The urban limit line establishes a line on the General Plan land use maps demarcating where the urban and semi-urban land uses will be developed. The Rural Center boundaries as depicted on the General Plan land use map shall be the established urban limit line. Recognize existing defined places as centers within the Rural Regions which provide a focus of activity and provides goods and services to the surrounding areas.
        - **Policy 2.1.2.1:** The Rural Centers within the County are identified as: Camino, Cedar Grove, Coloma, Cool, Fairplay, Garden Valley, Greenwood, Georgetown, Grey's Corner, Grizzly Flat, Kelsey, Kyburz, Latrobe, Little Norway, Lotus, Mosquito, Mount Ralston, Mt. Aukum, Nashville, Oak Hill, Phillips, Pilot Hill, Pleasant Valley, Pollock Pines, Quintette, Rescue, Somerset, Strawberry, and Chrome Ridge. (Resolution 126-2019, August 6, 2019)
        - **Policy 2.1.2.2:** Rural Center boundaries establish areas of higher intensity development throughout the rural areas of the County based on the availability of infrastructure, public services, existing uses, parcelization, impact on natural resources, etc. These boundaries shall be shown on the General Plan land use map.
        - **Policy 2.1.2.3**: To meet the commercial and service needs of the residents of the Rural Centers and Rural Regions, the predominant land use type within Rural Centers shall be commercial and higher density residential development.

- **Goal 2.2:** A set of land use designations which provide for the maintenance of the rural and open character of the County and maintenance of a high standard of environmental quality.
  - **Objective 2.2.1:** An appropriate range of land use designations that will distribute growth and development in a manner that maintains the rural character of the County, utilizes infrastructure in an efficient, cost-effective manner, and further the implementation of the Community Region, Rural Center, and Rural Region concept areas.
    - **Policy 2.2.1.2:** To provide for an appropriate range of land use types and densities within the County, the following General Plan land use designations are established and defined.

      Commercial (C): The purpose of this land use category is to provide a full range of commercial retail, office, and service uses to serve the residents, businesses, and visitors of El Dorado County. Mixed use development of commercial lands within Community Regions and Rural Centers which combine commercial and residential uses shall be permitted. Commercially designated parcels shall not be developed with a residential use as the sole use of the parcel unless the residential use is either (1) a community care facility as described in goal HO-4 or (2) part of an approved mixed use development as allowed by Policy 2.1.1.3 and 2.1.2.5, within an area zoned to allow for a mix of uses. Numerous zone districts shall be utilized to direct specific categories of commercial uses to the appropriate areas of the County. This designation is considered appropriate within Community Regions, Rural Centers and Rural Regions.
    - **Policy 2.2.1.3:** The General Plan shall provide for the following range of population densities in the respective land use designation based upon the permitted range of dwelling units per acre and number of persons per acre:

      Commercial (C): 10 units per acre in Rural Centers
    - **Policy 2.2.1.5:** The General Plan shall provide for the following building intensities in each land use designation:

      Commercial (C): 0.85 Floor Area Ratio[1]
  - **Objective 2.2.1:** General Policy Section
    - **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.
    - **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 2.5.2:** Designate lands to provide greater opportunities for El Dorado County residents to shop within the County
    - **Policy 2.5.2.2:** New commercial development should be located near by existing commercial facilities to strengthen existing shopping locations and avoid strip commercial.

[1] Ratio of allowable floor area (square footage) to site area (square footage).

El Dorado County Zoning Ordinance

The County Zoning Ordinance classifies and regulates the uses of land and structures within unincorporated El Dorado County in order to implement the goals and policies of the General Plan, most notably the Land Use Element (El Dorado County 2019b). The Zoning Ordinance directly influences development by specifying the distances between buildings, the height of buildings, landscaping, parking, and other regulations that combine to create the desired environment.

Section 130.27.050 (Design Review – Community (-DC) Combining Zone) of the Zoning Ordinance establishes a Design Review—Community (-DC) Combining Zone which requires projects located within the zone to obtain a Design Review Permit in accordance with the established standards and site review procedures. Design Review Permit applications are processed in accordance with Section 130.52.030 (Design Review Permit) of the Zoning Ordinance. The project site is located within a -DC Combining Zone.

3.10.3 Significance Criteria

The significance criteria used to evaluate the project impacts are based on Appendix G of the CEQA Guidelines. A significant impact related to land use would occur if the proposed project would:

- Physically divide an established community.
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

As described in the Initial Study (Appendix A), the project would not physically divide an established community because the proposed retail commercial building and parking lot would be located in an area designated for commercial development and surrounded by undeveloped lands and existing commercial development. Therefore, this topic is not discussed further in this Draft EIR.

3.10.4 Project Impacts

Methodology

Section 15125(d) of the CEQA Guidelines, requires than an EIR shall discuss any inconsistencies with applicable general plans, specific plans, and regional plans as part of the environmental setting. Applicable land use plans and policies considered in this analysis is the El Dorado County 2004 General Plan. The discussion in this chapter differs from the impact discussions of the other technical sections in Chapter 3 in that only general land use plan or policy consistency issues are discussed, as opposed to a discussion of the physical impacts on the environment that could occur with implementation of the proposed project. If an inconsistency is noted, the analysis then evaluates whether the inconsistency could result in an environmental effect that the policy or regulation is intended to avoid or mitigate. Ultimately, it is within the County's decision makers' purview to decide if the proposed project is consistent with the General Plan.

Project Impacts

Impact 3.10-1

The project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The parcel is zoned General Commercial (CG) with a Design Review—Community (-DC) Combining Zone overlay (CG-DC). The intent of the -DC combining zone to require that a Design Review Permit is obtained as part of a project in order to ensure architectural supervision and consistency with the adopted Community Design Guideline (El Dorado County 2018). With an approved Design Review Permit, the project would be consistent with the DC overlay zoning requirements.

The proposed project would not exceed a floor area ratio of 0.85, consistent with Policy 2.2.1.5 of the General Plan. The proposed project exceeds all setback requirements, which are a minimum of 10 feet for the front, and five feet for the sides and rear. The maximum height in the CG zone is 50; the proposed project would be 33 feet high (which includes the roof parapet). The proposed commercial retail land use is consistent with the Commercial and Rural Center designations of the El Dorado County 2004 General Plan, and with the General Commercial (CG) zoning. The areas surrounding the project site contain commercial uses, or undeveloped land that is designated and zoned for commercial development.

As discussed in resource sections of Chapter 3 of this EIR, the proposed project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. For these reasons, this impact would be **less than significant**.

3.10.5 Cumulative Impacts

The consistency analysis of applicable land use goals and policies, and compatibility with existing adjacent uses is not an additive effect. Therefore, cumulative impacts to land use policies are generally not a potential issue unless one or more cumulative projects would change applicable land use plans, which is not the case with the proposed project. Therefore, there are no significant land use consistency impacts where the project, in combination with impacts from other projects, could contribute to a cumulative land use impact. Potential cumulative issues related to the proposed use, a commercial retail building, such as those related to noise, traffic, or air quality are addressed within the appropriate resource sections of this EIR.

3.10.6 Mitigation Measures

No mitigation is required.

3.10.7 References

El Dorado County 2018. Community Design Guide. Prepared November 1981, Adopted by the Board of Supervisors April 24, 2018 by Resolution 071-2018. Accessed November 4, 2020. Available online at: https://www.edcgov.us/Government/planning/Documents/Community-Design-Guide-Reformatted-Adopted-4-24-18.pdf.

El Dorado County 2019a. 2004 El Dorado County General Plan, Land Use Element. Adopted July 19, 2004. Amended December 20, 2019.

El Dorado County 2019b. Zoning Ordinance. El Dorado County Code title 130. Adopted August 14, 2018. Amended January 8, 2019

3.11 Public Services and Recreation

This section addresses the public services and recreation required to serve the proposed project. These services and utilities include parks and recreational facilities; schools; fire protection; law enforcement; and library services.

Public comments received in response to circulation of the Notice of Preparation (Appendix B) included several comments related to public safety and crime. This section addresses the public facilities that will serve the project site. Under CEQA, public service impacts relate to the environmental effects of providing expanded or new facilities which are required as a result of the project. Social issues, including crime, are important concerns for the County. They are generally not, however, CEQA issues. Accordingly, this section analyzes the need for additional public facilities and the potential environmental effects of providing such facilities.

3.11.1 Environmental Setting

Fire Protection and Emergency Medical Services

El Dorado County Fire District provides fire protection services and emergency services in unincorporated El Dorado County. The nearest fire station to the project site is Station 72 located at 7200 Saint Florian Court in Cool, California, approximately 0.10-mile northwest of the project site (El Dorado County Fire District 2020).

Law Enforcement

The El Dorado County Sheriff's Office provides law enforcement services in unincorporated El Dorado County. The nearest Sheriff's substation is located at 6101 Front Street, Georgetown, approximately 12 miles east of the project site. In addition, there is a main office located at 200 Industrial Drive in Placerville, California (El Dorado County Sherriff's Office 2020), approximately 20 miles away.

Parks and Recreation Facilities

The nearest existing recreational resource near the project site is the Olmstead Loop Trailhead, part of the Auburn State Recreation Area, which is located west of the project site, across State Route 49. The Auburn State Recreation Area, which is 20 miles long on two forks of the American River, is situated south of Interstate 80, stretching from Auburn to Colfax. The park offers a wide variety of recreation opportunities to over 900,000 visitors a year. Major recreational uses include hiking, river access, boating (including whitewater recreation), fishing, camping, mountain biking, gold panning, limited hunting, equestrian/horseback riding trails and off-highway motorcycle riding.

3.11.2 Regulatory Setting

Federal Regulations

Fire Protection

National Fire Protection Association

The National Fire Protection Association publishes a number of standards that are useful to the El Dorado County Fire Department, including:

> **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.

Law Enforcement

There are no federal law enforcement regulations or policies applicable to the project.

State Regulations

Fire Protection

Uniform Fire Code

The Uniform Fire Code with the State of California Amendments contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-–safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8, Sections 1270 “Fire Prevention” and 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.

Law Enforcement

There are no State law enforcement regulations or policies applicable to the project.

Local Regulations

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 combustible material that constitutes a fire hazard which may endanger or damage neighboring property, and describes the means of enforcement. The following provisions are applicable to the proposed project:

Sec. 8.09.070. - Duty to remove and abate hazardous vegetation and combustible material.

A. It shall be the duty of every owner, occupant, and person in control of any parcel of land or interest therein, which is located within the County to remove, or abate, all hazardous vegetation and combustible material, which constitutes a fire hazard and may endanger or damage neighboring property.
B. The owner, lessee or occupant of buildings, grounds, or lots within the County shall remove from such property and adjacent streets all waste, garbage, rubbish, weeds, hazardous vegetation or other combustible materials growing or accumulated thereon in accordance with the procedures and methods prescribed in this chapter and by the Enforcement Official.
D. Any home owners association (HOA), lighting and landscape district, subdivision development, special district, or other entity that has a developed and approved Wildland Fire Safe Plan in accordance with the County's General Plan requirement and CFC Chapter 49, shall be granted a reasonable amount of time to comply with this ordinance not to exceed five years from the date which this ordinance was approved and ratified by the Board of Supervisors (May 30, 2019).
E. Prior to the close of any real estate sales transaction within the County, the requirements for property owners to comply with the Vegetation Management Ordinance shall be disclosed to all potential property owners.
F. All improved parcels, shall comply with the following requirements:
    1. Maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line except as provided in Paragraph 11. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This paragraph does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation.
    2. Consistent with fuels management treatment objectives, steps should be taken to minimize erosion. For the purposes of this paragraph, "fuel" means any combustible material, including petroleum-based products and wildland fuels.
    3. A greater distance than that required under Paragraph 1 may be required by State law, local ordinance, rule, or regulation. Clearance beyond the property line may only be required if the State law, local ordinance, rule, or regulation includes findings that the clearing is necessary to significantly reduce the

risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure.

4. Clearance on adjacent property shall only be conducted following written consent by the adjacent landowner.
5. Remove that portion of a tree that extends within ten feet of the outlet of a chimney or stovepipe.
6. Maintain trees, shrubs, or other plants adjacent to or overhanging a building free of dead or dying wood.
7. Maintain the roof of a structure free of leaves, needles, or other vegetative materials.
8. A person is not required under this section to manage fuels on land if that person does not have the legal right to manage fuels, nor is a person required to enter upon or to alter property that is owned by any other person without the written consent of the owner of the property.
9. Cultivated and useful grasses and pastures shall not be considered a public nuisance. However, if the County's Enforcement Official determines it necessary to protect adjacent improved property from fire exposure, an adequate firebreak may be required.
10. The public and entities should be aware of rare plants areas, riparian areas, and raptor nesting trees on the property and try to avoid these sites.
11. Good neighbor and neighborhood protection policy including unimproved parcels. A 100-foot wide strip of land around structure(s) located on an adjacent improved parcel (some or all of this clearance may be required on the adjacent improved parcel or the adjacent unimproved parcel depending upon the location of the structure on the improved parcel). For example, a structure could be within 70 feet of its property line. The adjacent property owner shall assist its neighbor by completing fuels management on another 30 feet to create a 100-foot strip of treated land.
12. Improved and unimproved parcels adjacent to all roadways that have been designated by the County Enforcement Official (or designee) to be necessary for the safe ingress and egress to the area served by the roadway or fire access easement and the current condition of fuels on the improved or unimproved parcel is assessed by the County Enforcement Official as an extra hazardous fire condition which must be treated or abated.

El Dorado County General Plan

The following goals, objectives, and policies related to public services and parks and recreation are established in the Public Services and Utilities Element of the El Dorado County General Plan (El Dorado County 2019) and are applicable to the project.

- **Goal 5.7.** Adequate and comprehensive emergency services, including fire protection, law enforcement, and emergency medical services.
  - **Objective 5.7.1.** Ensure sufficient emergency water supply, storage, and conveyance facilities are available, and that adequate access is provided for, concurrent with development.
    - **Policy 5.7.1.1.** Prior to approval of new development, the applicant will be required to demonstrate that adequate emergency water supply, storage, conveyance facilities, and access for fire protection either are or will be provided concurrent with development.
  - **Objective 5.7.2.** Sufficient emergency water supply, storage, and conveyance facilities for fire protection, together with adequate access are available, or are provided for, concurrent with development.
    - **Policy 5.7.2.1.** Prior to approval of new development, the responsible fire protection district shall be requested to review all applications to determine the ability of the district to provide protection services. The ability to provide fire protection to existing development shall not be reduced below acceptable

levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

- **Objective 5.7.3.** 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.** 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.

3.11.3 Significance Criteria

The significance criteria used to evaluate the project impacts are based on Appendix G of the CEQA Guidelines. A significant impact related to public services and recreation would occur if the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - Fire protection
  - Police protection
  - Schools
  - Parks
  - Other Public Facilities
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreation facilities which might have an adverse physical effect on the environment

The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities. This topic is not discussed further in this EIR.

3.11.4 Project Impacts

Methodology

Evaluation of potential impacts to public services and recreation are evaluated based on a comparison of the proposed change to the existing land use on the project site and based on the potential of the proposed land use to increase the local demand for public services and recreational facilities relative to existing conditions. In determining the level of significance, this analysis assumes that the proposed project would comply with relevant state and local ordinances and regulations, as well as the general plan policies presented above. The need for new or expanded public services or facilities, and the potential for degradation of existing recreational resources, and the related physical impacts that could occur are analyzed qualitatively.

Project Impacts

Impact 3.11-1

The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities:

Fire Protection

Development of the project site would result in a need for fire protection services to respond to any potential incidents that may occur at the site. The project site is located in a developed part of the County that currently receives fire service, and the proposed land use does not include features or activities that would substantially increase fire risk in the El Dorado County Fire District service area. The El Dorado County Fire District has reviewed the project and provided conditions of approval (COAs) regarding fire flow, vegetation and fuel modification, and sprinkler and fire alarm requirements, which are to be incorporated into the permit approvals. Based on the Fire District's review, the implementation of the COAs would provide sufficient fire protection systems. In addition, the project would be required to comply with the fire safety regulations in Chapter 8.08 (Fire Prevention) and Chapter 8.09 (Vegetation Management and Defensible Space) of the County Code, which would minimize the risk of the development of the project to exacerbate fire risk in the area and thereby require expanded fire facilities. Fire Department fees would be collected as part of the Building Permit process. The project site is located 0.10 miles from Station 72, which is visible from the project site. Fire services can adequately be provided by existing facilities and this impact would be **less than significant**.

Law Enforcement

Development of the project site would require law enforcement services to respond to any potential incidents at the project site. However, the project site is located in a developed part of the County that is currently served by the Sheriff's Office. The nearest Sheriff's Office facility is the substation in Georgetown, 12 miles east. It is anticipated that the project site would be adequately served from this facility, and the main office in Placerville. Consistent with Policy 5.7.3.1 of the Public Health and Safety Element of the El Dorado County General Plan, prior to approval, the Sheriff's Office would be requested to review the project and confirm the ability of the department to provide protection services. As stated by the Sheriff's Office on July 14, 2020, at the Board of Supervisors hearing, the

project is not anticipated to place unusual demand on law enforcement. The proposed project can be served by existing facilities and would not result in the need for new police personnel or facilities, or the alternation of existing police facilities. This impact would be **less than significant**.

Other Services

It is anticipated the employees of the proposed commercial retail store would be drawn primarily from the local work force, and that the operation of the proposed commercial retail store that would not increase the local population. Therefore, the proposed project would not contribute to increased demand on schools, parks, or other governmental services that could, in turn, result in the need for new or expanded facilities. In addition, the proposed project would be required to pay applicable school development fees, which is considered full mitigation under CEQA.

For these reasons, the potential of the proposed project to contribute to increased demand on public services that could result in the need for new or expanded public facilities would be **less than significant**.

Impact 3.11-2

The project would not 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.

It is anticipated the employees of the proposed commercial retail store would be drawn primarily from the local work force, and that the operation of the proposed commercial retail store that would not increase the local population. Therefore, the project does not include any increase in permanent population that would contribute to increased demand on recreation facilities or contribute to increased use of existing facilities such that physical deterioration of the facility would occur. The nearest public recreation facility is the Olmstead Loop Trailhead, part of the Auburn State Recreation Area, which is located on the other side of State Route 49. Because the project site is separated from the recreation area and trail by a highway and shopping center, project construction and operation would not result in the physical deterioration of these recreational resources. Consequently, impacts to parks and recreational facilities would be **less than significant**.

3.11.5 Cumulative Impacts

The cumulative projects would have minimal effect on public services. The cumulative projects would not increase the service population, or generate additional visitors. As discussed above, the project would have a less-than-significant effect on public services. The cumulative impact to public services and recreation would be **less than significant**.

3.11.6 Mitigation Measures

No mitigation measures are required.

3.11.7 References

El Dorado County 2019. 2004 El Dorado County General Plan, Public Services and Utilities Element. Adopted July 19, 2004. Amended December 20, 2019.

El Dorado County Fire District 2020. Community Stations webpage. Accessed November 6, 2020. Available online at: https://www.eldoradocountyfire.com/district/community-stations/.

El Dorado County Sherriff's Office 2020. Sheriff's Office webpage. Accessed November 6, 2020. Available online at: https://www.edcgov.us/Government/sheriff.

3.12 Transportation

The following analysis identifies potential impacts due to project-related transportation and circulation changes that would occur in and around the project site. The analysis provided in this section is based on a Transportation Impact Analysis (TIA) and Addendum prepared by KD Anderson & Associates, Inc. on March 9, 2019 and updated September 16, 2020, respectively (Appendix I to this EIR). The TIA was reviewed by the El Dorado County Department of Transportation. The analysis included in this chapter evaluates the impacts of the project on the environment in the context of planning guidance documents applicable to the project area, including the El Dorado County General Plan's Transportation Element.

Public comments related to transportation that were received in response to circulation of the Notice of Preparation (Appendix B) and the public scoping meeting for the proposed project included concerns about congestion at State Route (SR) 49 and Northside Drive, plan details related to curb, gutter and sidewalk; intersection improvements; and bicycle and pedestrian amenities.

As of July 1, 2020, CEQA Guidelines Section 15064.3(c) specifies that analysis of transportation impacts under CEQA shall be evaluated using vehicle miles traveled (VMT). Per CEQA Guidelines Section 15064.3(a), a land use project's effect on automobile delay shall not constitute a significant environmental impact. As stated above, a TIA has been prepared for the project that analyzes the project effect on project area roadways and intersections using level of service (LOS), which is a measure of delay. Some information from the LOS analysis is included in this section, such as traffic volumes, to describe the project setting. However, LOS is not used to determine the impacts of the project on the transportation system, per the CEQA Guidelines.

Caltrans Local Development-Intergovernmental Review (LD-IGR) is a mandated ongoing statewide effort focused primarily on avoiding, eliminating, or reducing to insignificance, potential adverse impacts of local development on the transportation system. Caltrans designed it to share expertise with other jurisdictions and assist them throughout their land use planning and decision-making processes, consistent with the requirements of the National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), Streets and Highways Code, and numerous planning and zoning laws that affect stewardship of the State Highway System. This Program is directed to use 'best practices' analysis. *Interim Land Development and Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance* was issued by Caltrans in July 2020, and the discussion which follows addresses key topics identified in that Guidance.

3.12.1 Environmental Setting

This section describes the existing setting of the surrounding transportation facilities in the study area. The proposed project site is located within the unincorporated community of Cool in the northern portion of El Dorado County, as shown in Figure 2-1. The project site fronts on the East side of SR 49 (Golden Chain Highway or Highway 49) and the south side of Northside Drive, North of SR 193 (Georgetown Road or Highway 193) approximately 400 feet.

Study Area

Access to the project site is provided via a single driveway on Northside Drive. The driveway is about 35 feet from the United States Postal Service (USPS) Driveway to the west and is about 655 feet from the Cool Boat and RV Storage across Northside Drive to the east.

The commercial building immediately north of the project site (across Northside Drive) includes a restaurant, offices, and the USPS, totaling approximately 8,800 square feet east of the USPS site and north of Northside Drive is the Cool Boat and RV Storage. The parcel immediately to the east is vacant, while further east is a cellular tower (approximately 225 feet). Immediately to the south is a vacant parcel and then SR 193. South of SR 193 is a retail shopping center, anchored by a Holiday Market. Immediately to the west is SR 49, then the central commercial area of Cool, which includes several restaurants, retail stores, a feed and ranch supply store, a gas station, auto repair, and a veterinary hospital. Fire Station No. 72 of the El Dorado County Fire Protection District is located further to the northwest, on St. Florian Court. The Olmstead Loop Trailhead, part of the Auburn State Recreation Area, is also located next to the Fire Station.

Study Area Roadways

State Route 49 (SR 49) serves north-south traffic throughout the Sierra Nevada foothills. In and near El Dorado County, State Route 49 runs from Plymouth in Amador County through Diamond Springs, Placerville, Coloma, Pilot Hill, and Cool to Auburn in Placer County. The portion of State Route 49 between Cool and Auburn contains sections that are narrow, winding, and steep. In the vicinity of the site, SR 49 is a 2-lane facility with no frontage improvements. The posted speed limit is 45 mph near the site and transitions to 55 mph further north. The most recent traffic volume counts published by Caltrans indicate that SR 49 carries an Annual Average Daily Traffic (AADT) volume of 8,800 vehicles per day north of SR 193, and trucks comprise 4% of the daily volume.

Northside Drive is a 2-lane local street that intersects State Route 49 approximately 600 feet north of SR 193.

State Route 193 (SR 193) runs easterly from SR 49 in Cool to an intersection on SR 49 north of Placerville. The two-lane highway is generally far narrower than the Caltrans standard for this type of highway, except for a wider section near Georgetown and a narrower, steep, and winding section north of Placerville. In the vicinity of the site, SR 193 is a 2-lane facility with no frontage improvements, although a separated bike path exists along the northside of the road. The posted speed limit is 55 mph. The most recent traffic volume counts published by Caltrans indicate that SR 193 carries 7,600 AADT east of SR 49, and trucks comprise 6% of the daily trips.

Study Area Intersections

State Route 49 / St. Florian Court – This intersection is a "Tee" intersection controlled by an eastbound stop sign on St. Florian Court. A northbound left turn lane is present on SR 49. The St. Florian Court approach is a single lane, and there are no crosswalks present.

State Route 49/Northside Drive – This intersection is a "Tee" intersection controlled by a westbound stop sign on Northside Drive. A two-way-left-turn-lane (TWLTL) is present on SR 49. The Northside Drive approach is a single lane, and there are no crosswalks present.

State Route 49 / Commercial Driveway – This intersection is a "Tee" controlled by a stop sign on eastbound Commercial Driveway. A Two-Way-Left-Turn-Lane is present on SR 49. The Commercial Driveway is a private drive, and there are no crosswalks present.

State Route 49/State Route 193 – This intersection is a four-way intersection controlled by an all-way stop with an overhead flasher. SR 49 has separate left turn lanes on each approach. A southbound right-turn lane exists, and the northbound thru-lane is wide enough to allow right turns outside of the queue of northbound traffic. The SR 193

westbound approach is wide enough to act as a combined left-thru lane and a separate right-turn lane, and the eastbound leg is a single-lane private drive. Crosswalks exist on the south and east side of the intersection.

USPS Driveway/Northside Drive – This intersection is a "Tee" controlled by a stop sign on the southbound USPS driveway. There are no auxiliary lanes or crosswalks present.

Existing Traffic Volumes

Existing Weekday Volumes

Traffic counts were made for this study on June 12, 2019. Intersection turning movement counts were made at study intersections during the period from 4:00 p.m. to 6:00 p.m. The highest hourly traffic volume period within the two-hour window was identified as the peak hour. The results are shown in **Table 3.12-1**.

This analysis was limited to the weekday p.m. peak hour based on Caltrans and El Dorado County consideration of SR 49 traffic volumes throughout the day, as well as the relative difference between project's a.m. and p.m. peak hour trip generation. Available data indicates that the background a.m. peak hour volume is less than that in the p.m. peak hour. As noted in the subsequent assessment of project trip generation, Dollar General Stores typically generate considerably less traffic during the morning peak period.

Table 3.12-1. Weekday Traffic Volumes

Road	Location	Direction	PM Peak Hour Volume
SR 49	North of SR 193	Northbound	257
		Southbound	561
	South of SR 193	Northbound	213
		Southbound	256
SR 193	East of SR 49	Eastbound	467
		Westbound	200

Source: KD Anderson 2019.

Saturday Traffic Volumes

Additional Saturday traffic counts were collected on Saturday, August 29, 2020 from noon to 2:00 PM.

Counts were collected at these locations:

- SR 49/SR 193
- SR 49/Northside Drive

These intersections represent the main intersections in Cool, and provide data relating to the project's access. To account for COVID-19, an appliable method was used to adjust counts to "normal" summer weekend conditions and to validate the result. Data was collected at the SR 49 and SR 193 intersection for Saturdays in July-August from 11:00 a.m. to 5:00 p.m. and assembled for 2019 (No COVID-19) and for 2020 during this time period.

To validate this information the average total traffic volume reported by Streetlight for the noon-2:00 p.m. period was found for summer 2020 conditions (1,828 vehicles) and compared to that in the August 29, 2020 two-hour count (1,778 vehicles) as shown in Table **3.12-2**. The difference of 50 vehicles, or 2.8%, is not significant.

Comparison of Year 2019 and Year 2020 two-hour data (refer to Table 3.12-2) indicated that last year's average volumes were roughly 8% greater than those developed for 2020. To provide a conservative estimate the 2020 Saturday peak hour counts at all locations were increased by 10% to approximate regular conditions.

Table 3.12-2. Saturday Noon to 2:00 PM Traffic Volumes at SR 49/ SR 193 Intersection (vehicles)

August 29, 2020 count	Average July-August 2020	Difference (count minus average)	Average July-August 2019	Difference (2019-2020)	Adjustment Factor Applied
1,778	1,828	50 (2.6%)	1,971	143 (8%)	10%

Source: KD Anderson 2020b.

Peak Hour Queues

The 95th Percentile queues occurring during the p.m. peak hour at the SR 49 and SR 193 intersection are shown in **Table 3.12-3**. As shown, all estimated queues can be accommodated within the available storage, and no improvements were determined necessary.

Table 3.12-3. Existing Intersection Peak Hour Queues

Intersection	Lane	Storage (feet)	Weekday PM Peak Hour		Saturday Peak Hour		Storage Adequate?
			Volume (vph)	*95th % Queue (feet)*	*Volume (vph)*	*95th % Queue (feet)*	
SR 49/ SR 193	SB	200[1]	374	170	243	75	Yes
	NB	150[1]	15	<25	21	<25	Yes
	WB approach	unlimited	200	40	304	70	Yes

[1] Lane continues as two-way turn lane
Source: KD Anderson 2020b.
Vph = vehicles per hour

Alternative Transportation Facilities

Pedestrian Facilities

There are currently no sidewalks in the area surrounding the proposed project.

Bicycle Facilities

There are no sidewalks, crosswalks, or dedicated bicycle lanes on Northside Drive. SR 49 and SR 193 do have a Class I Bikeway (Bike Path) in the vicinity of the project site that was proposed in the Northside School Class I Bike Path Project. The Class I Bikeway begins at Cave Valley Road (south of the project site) along the west side of SR 49, connects via the crosswalks at the SR 49/SR 193 intersection, to continue along the north side of SR 193 to

Auburn Lake Trails. This Class I Bikeway was constructed beginning in 2014 and provides a multi-use trail for pedestrian and bicyclist use.

Transit Facilities

The El Dorado County Transit Authority (EDCTA) and Lake Tahoe Transit provide transit service in El Dorado County. The El Dorado County Transit Authority serves the residents of western El Dorado County, providing scheduled fixed-route service, daily commute service to Sacramento, dial-a-ride service in Placerville and outlying communities, and chartered social service routes. Life-line service is also provided to the elderly, the disabled, and Sacramento commuters. For EDCTA's fixed-route service, seven routes are local (within El Dorado County), and 12 are commuter routes to Sacramento County. In fiscal year 2000/2001, EDCTA served nearly 295,000 riders. The commuter service was particularly well used with an average weekday ridership of approximately 500. There are currently no bus routes that run through the surrounding area of the proposed project

Collision History

Traffic collision information was obtained for locations on SR 49 for the period of January 1, 2016 to December 31, 2018. During that time period, a total of one (1) Collision was reported for the segment 300 feet south of SR 193 to 300 feet north of St. Florian Court. One (1) rear-end collision occurred 65 feet south of SR 193. The statewide average collision rate for rural three-lane roads (i.e., with TWLT lane) is 0.94 per Million Vehicle Miles (MVM). Over three years this ¼ mile long segment experienced a rate of 0.42 per MVM.

3.12.2 Regulatory Framework

Federal Regulations

No federal regulations are applicable to transportation in relation to the proposed project.

State

Senate Bill 743

Senate Bill (SB) 743, passed in 2013, requires the California Governor's Office of Planning and Research (OPR) to develop new 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 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."

The changes to the CEQA Guidelines identify automobile vehicle miles traveled (VMT) as the preferred CEQA transportation metric and, upon their certification on December 28, 2018, eliminated use of auto delay and LOS statewide for CEQA transportation analysis. The new guidelines and the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018) include specifications for VMT methodology and recommendations for significance thresholds and mitigation.

Local Laws, Regulations, and Policies

El Dorado County General Plan

The Transportation Element (augmented December 2019) of the El Dorado County General Plan includes policies related to level of service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county. While these policies may apply to findings of consistency when considering a project, LOS may not be used to determine a significant transportation impact under CEQA (per Public Resources Code Section 21099 and CEQA Guidelines Section 15064.3).

The Transportation Element includes policies regarding alternative transportation modes.

- **Policy TC-3c.** The County shall encourage new development within Community Regions and Rural Centers to provide appropriate on-site facilities that encourage employees to use alternative transportation modes. The type of facilities may include bicycle parking, shower and locker facilities, and convenient access to transit, depending on the development size and location.
- **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.

VMT Policy

On October 6, 2020, the Board of Supervisors adopted Resolution 141-2020, which provides direction on the County's application of the methodology, significance thresholds, mitigation measures and exemptions for implementation of the vehicle miles traveled standard, per Senate Bill 743, for land use projects. Resolution 141-2020 incorporates by reference the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA.*

El Dorado Count Active Transportation Plan

The EDCTC adopted the Active Transportation Plan (Plan) in February 2020. The Plan establishes a long term vision for improving walking and bicycling in El Dorado County. This Plan updates the previous 2010 El Dorado County Bicycle Master Plan. The Plan identifies SR 49 as a Class II Bike Lane north of SR 193.

3.12.3 Thresholds of Significance

A significant impact may result if the project would

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

3.12.4 Project Impacts

Methodology

Project Trips

As discussed above, the effect of the project on traffic delay is not a significant impact. For informational purposes, trip generation is provided from the TIA. Trips generation and distribution assumptions were calculated in accordance with the Institute of Transportation (ITE) publication *"Trip Generation, 10th Edition."*

Trip Generation Rates. The proposed project use was assumed to be most similar to a "variety store" (i.e., Code 814). Information is available for the hour with the highest volume of project weekday traffic, which is called the "peak hour of the generator". This rate has been employed to estimate the project's traffic on the Saturday peak hour.

Trip Generation Forecasts. Table 3.12-4 displays the p.m. peak hour of the generator trip generation forecast for the 9,100 square feet (9.1 ksf) proposed project. It would generate 68 p.m. peak hour trips at its driveway. A portion of the traffic drawn to these stores would be from the stream of traffic already passing the project site. The *ITE Trip Generation Handbook, 3rd Edition* notes that 34% of the weekday p.m. trips are "pass-by", and this rate has been assumed for Saturday. Therefore, the project is expected to generate 44 "new" trips during the p.m. peak hour. ITE does not have separate Saturday rates, therefore the weekday peak hour rates are used.

Table 3.12-4. Trip Generation Rates

			Peak Hour of Adjacent Street						PM Peak Hour of Generator		
			AM Peak Hour			*PM Peak Hour*					
Land Use/Source	Unit	Daily	*In*	*Out*	*Total*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Variety Store (814)	ksf	63.47	57%	43%	3.18	52%	48%	6.82	50%	50%	7.42
Dollar General Store	9.1 ksf	578	16	13	29	32	30	62	34	34	68
Pass-by Trips	34%	<196>	<5>	<5>	<5>	<10>	<10>	<20>	<12>	<12>	<24>
Net New Trips		382	11	8	19	22	20	42	22	22	44

[1] Lane continues as TWLTL.
Source: KD Anderson 2020b.

Vehicle Trip Distribution/Assignment. The distribution of project traffic on Saturday assumption was the same for the TIA and the Addendum. As noted in Table 3.12-5, assuming a primary trade area that extends up to 2 miles from the site, the new trips attracted will arrive primarily from the south along SR 49 and east along SR 193, with lesser shares arriving from the north and from the businesses that already exist along SR 49. Pass-by trips will be draw from passing traffic on SR 49 in general proposition to the current peak hour volumes from each direction. These assumptions were assigned to the study area street system.

Table 3.12-5. Directional Trip Distribution (new trips)

Direction	Route	Percentage of New Trips
North	SR 49 north of Northside Drive	10%
East	SR 193 east of SR 49	40%
South	SR 49 south of Northside Drive	40%
West	Local businesses	10%
	Total	**100%**

Source: KD Anderson 2020b.

Pedestrian Impacts. Some employees or customers of the project may elect to walk to other commercial uses in the area. Based on the results of the Saturday traffic counts, midday pedestrian activity between uses in the area is low. Similarly the project is not expected to result in appreciable numbers of pedestrians to and from the project site. Fewer than six (6) pedestrians were monitored over two midday hours.

Bicycle Impacts. While the use of bicycles may be an option for employees or customers to get the site, based on current Saturday bicycle counts in the area the number of cyclists generated by this use is likely to be low. The number of cyclists associated with this project is not likely to create any appreciable safety impacts on SR 49 where the paved shoulder is already available to provide access to the project. Fewer than four (4) bicyclists were monitored over two midday hours.

VMT Impacts. CEQA Guidelines Section 15064.3(b) identifies VMT as the metric for evaluating the transportation impacts of land use projects. The VMT evaluation of the proposed project relies upon the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* and County Resolution 141-2020.

Truck Trips. The proposed project will receive regular deliveries from the Dollar General Stores regional distribution center serving this area of California. Project proponents anticipate that 1-2 full size trucks will visit the store each week, although smaller single unit trucks may visit each day. At typical Dollar General Stores some of the full-size trucks are expected to be STAA trucks (53') permitted on California highways under the Surface Transportation Authorization Act. However, when the regional routes providing access to individual stores are not designated for STAA, alternative vehicles are used. This is the case on this portion of SR 49 which is not an STAA terminal route.

The anticipated truck delivery route to and from this site will be to and from US 50 to the south, as noted in the illustration included in the appendix to the TIA report. Site truck circulation has been reviewed. The project will result in trucks turning into the site and turning first right into the parking aisle that runs parallel to Northside Drive. From that point the truck will back into the aisle towards the store's rear door. After completing the delivery, trucks will proceed to Northside Drive. This is a common Dollar General Store configuration, and the parking layout is wide enough to accommodate these movements (KD Anderson 2020c).

Project Impacts

Impact 3.12.1

The project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Consistent with the Active Transportation Plan, the project has been conditioned to provide an in-lieu fee for a new Class II Bike Lane along the shoulder of SR 49. The bike lane would be constructed as a continuous project through the community of Cool.

The project is proposing six bicycle parking spaces located south of the proposed building. These facilities are proposed in compliance with the El Dorado County Parking and Loading requirements.

Current pedestrian and bicycle volumes were monitored during Saturday midday traffic counts, and use of both transportation modes at the SR 49 / SR 193 intersection are very low (i.e., fewer than 6 pedestrians or 4 bicyclists over two midday hours). As is the case today, any pedestrians for cyclists generated by the Dollar General Store will be able to use the available shoulder on SR 49 and use the crosswalks at the SR 49 / SR 193 intersection.

Impacts resulting from a conflict with transportation policies would be **less than significant**.

Impact 3.12.2

The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

The Technical Advisory (OPR 2018) provides this direction for retail projects:

> **Retail Projects.** Generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT because retail projects typically reroute travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.

The Technical Advisory further states :

> [L]ocal-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant.
>
> Many cities and counties define local-serving and regional-serving retail in their zoning codes. Lead agencies may refer to those local definitions when available, but should also consider any project-specific information, such as market studies or economic impacts analyses that might bear on customers' travel behavior. Because lead agencies will best understand their own communities and the likely travel behaviors of future project users, they are likely in the best position to decide when a project will likely be local-serving. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional-

serving, and so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT.

The proposed project is 9,100 square feet in size. Therefore, it is below the level that might be considered regional-serving (50,000 square feet). In addition, the project site is zoned General Commercial. Per the County Zoning Ordinance, the General Commercial Zone, provides for a mix of commercial uses. The General Commercial Zone is distinct from the Regional Commercial Zone, which provides for large-scale retail services for a regional market.

The Economic Analysis prepared for the project (included as Appendix J of this EIR) identifies the market area as the community of Cool, and the nearby communities of Georgetown, Pilot Hill and Coloma and the surrounding rural area which are expected to provide the majority of its customer base. The proposed project is not positioned to compete regionally with shopping nodes such as Auburn or Placerville.

Based on the location of competing stores, the most likely effect on regional travel associated with the development of the project is to slightly reduce the length of trips from areas east of SR 49 that are today made to large retail centers located north (Auburn) and south (Placerville) of the SR 49/SR 193 intersection, and to offer another option for shopping trips made by residents of areas to the north and south along SR 49 (KD Anderson and Associates 2020a). As the proposed project is relatively close to other stores, the regional effect on VMT is likely to be a reduction caused by offering a closer shopping option for some customers.

Based on the size, location, and retail market of the proposed project, the impact to VMT would be **less than significant.**

Impact 3.12.3

The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

No design features associated with the proposed Project would increase hazards. Incompatible uses would not occur. The project site is zoned for general commercial use and is surrounded by similar development.

The project driveway and USPS driveway are slightly offset. While offset driveway can sometimes cause conflicts between turning vehicles, the characteristics of the two driveways and the volume of traffic anticipated combine to preclude typical concerns. The Post Office driveway is slightly west of the Dollar General driveway. In this alignment the typical turning conflict would have been between outbound left turns from each driveway who might meet between the intersections. In this case because Northside Drive is a cul-de-sac, all of the traffic observed leaving the Post Office did so by turning right to go back to SR 49. The vehicles would not occupy the same space as left turns from the Dollar General, and no conflict occurs. While an occasional Post Office customer may turn left to visit the Dollar General, the number of potential conflicts between Dollar General traffic and these left turns will be minimal. Sight lines between the two driveways are not obstructed. The anticipated operation of the two driveways would not result in increased hazards, and no change to the design is warranted

Project impacts would be **less than significant**.

Impact 3.12.4

The project would not result in inadequate emergency access.

The proposed project site would have adequate access for emergency vehicles from SR 49 and Northside Drive. Additionally, the project was reviewed by the Fire District for the adequacy of the interior project road circulation and availability of adequate emergency ingress and egress in the project design. The Fire District did not respond with any concerns pertaining to the proposed project's emergency ingress and egress capabilities as it was shown on the submitted site plan. Project impacts would be **less than significant.**

3.12.5 Cumulative Impacts

The two projects identified in Section 3.0 of this EIR would not contribute additional trips or conflict with alternative transportation policies. Additionally, VMT considers cumulative impacts in that it compares the project to the county or regional average. Cumulative transportation impacts would be **less than significant**.

3.12.6 Mitigation Measures

No mitigation measures are required.

3.12.7 References

California Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA.* December 2018.

El Dorado County. 2019. *El Dorado County General Plan Transportation Element*. Adopted July 19, 2004. Revised August 2019. Available online at: https://www.edcgov.us/Government/planning/pages/adopted_general_plan.aspx

El Dorado County Transportation Commission. 2020. *El Dorado County Active Transportation Plan.* Final Plan Adopted February 2020.

ALH Urban & Regional Economics, Dollar General Economic Analysis in Cool, November 26,2019

KD Anderson and Associates. 2019. Traffic Impact Analysis for Cool Dollar General Store. July 24, 2019.

KD Anderson and Associates 2020a. Cool Dollar General Store: VMT Assessment. February 25, 2020.

KD Anderson and Associates. 2020b. Traffic Impact Analysis Addendum for Cool Dollar General Store. September 16, 2020.

KD Anderson and Associates 2020c. Truck Template file 19091. May 21, 2020.

Caltrans Interim Land Development and Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance July 2020

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3.13 Utilities

This section addresses the public utilities required to serve the proposed Cool Dollar General (project). These utilities include water supply, treatment, and conveyance; wastewater treatment and conveyance; electricity, gas, and communication utilities; and solid waste disposal. This section summarizes relevant federal, State, and regional regulatory considerations; and evaluates the potential impacts of the project related to utilities.

In response to circulation of the Notice of Preparation (Appendix B), several comments were received related to the proposed septic system. This topic is addressed in Section 3.6, Geology and Section 3.9, Hydrology and Water Quality.

3.13.1 Environmental Setting

Water Supply

The project site is located within the Georgetown Divide Public Utility District (Georgetown PUD) service area. The Georgetown PUD provides domestic water service to the communities of Georgetown, Buckeye, Garden Valley, Kelsey, Spanish Dry Diggins, Greenwood, Cool, and Pilot Hill, all of which are located in unincorporated El Dorado County (Georgetown PUD 2016). The primary source of water to Georgetown PUD is the Stumpy Meadows Project, which includes storage facilities, diversion structures, and a conveyance system to the service area (Georgetown PUD 2016). Water from the Stumpy Meadows Reservoir is released to Pilot Creek and is re-diverted into the Georgetown District's water supply system (Georgetown PUD 2016). Some small watersheds also supply water to the water supply system below the primary reservoir; however, the water supply from these sources is less dependable and entirely secondary to the primary supply of the reservoir (Georgetown PUD 2016). Groundwater is not utilized as a water source because local groundwater resources are not of adequate quality or quantity (Georgetown PUD 2016).

Wastewater

The project site would not require service from a wastewater treatment provider and would instead utilize an on-site septic system. The system is described in Chapter 2, Project Description, and also in Section 3.6, Geology and Soils.

Energy Supply

Electricity and Natural Gas

Pacific Gas & Electric (PG&E) would provide electric and natural gas service to the project site. PG&E provides electric services to 5.1 million customers, including 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines over a 70,000-square-mile service area in northern and central California (PG&E 2020a). An existing overhead electrical line owned by PG&E crosses the southern half of the property from west to east.

PG&E also provides natural gas to all or part of 39 counties in California comprising most of the northern and central portions of the State, including Butte County. Within their entire service area, PG&E operates approximately 49,100 miles of transmission and distribution pipelines, and three underground storage fields with a combined storage capacity of 48.7 billion cubic feet (bcf) (PG&E 2020b).

Solid Waste

The project site is located within the El Dorado Disposal service area. El Dorado Disposal provides solid waste collection services for both cities and unincorporated communities in El Dorado County (El Dorado Disposal 2020).

3.13.2 Regulatory Setting

Federal Regulations

There are no federal plans or programs that address utilities and service systems and that would apply to the project

State Regulations

California Green Building Standards Code

The Green Building Standards Code, which was first adopted in 2010 and revised in 2013, applies to all newly constructed structures. Indoor water standards established in the code are satisfied through incorporation of appliances and fixtures such as high-efficiency toilets, faucet aerators, and on-demand water heaters, as well as Energy Star and appliances approved by the California Energy Commission.

California Waste Management Act

The California Waste Management Act of 1989 requires State, County, and local governments to substantially decrease the volume of waste disposed at landfills by the year 2000 and beyond. The act requires each County to submit an Integrated Waste Management Plan to the California Integrated Waste Management Board that includes an adopted Source Reduction and Recycling Element from each of its cities as well as a County-prepared Source Reeducation and Recycling Element for the unincorporated area. The element identifies existing and future quantities and types of solid waste, an inventory of existing disposal sites, a determination of the plan's economic feasibility, enforcement programs, and implementation schedule.

Local Regulations

El Dorado County Construction and Demolition Debris Recycling Ordinance

Chapter 8.43 of the El Dorado County Code (Construction and Demolition Debris Recycling within the County) establishes a program for the recycling and salvage of construction and demolition debris. The ordinance requires at least 50 percent of the debris from construction and demolition project 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 in two 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 General Plan

The following goals, objectives, and policies related to hazards and hazardous materials are established in the Public Services and Utilities Element of the El Dorado County General Plan (El Dorado County 2019) and are applicable to the project.

- **Goal 5.1:** Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to existing development while allowing for additional growth in an efficient manner; and, ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.
    - **Objective 5.1.2:** 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 5.1.2.3:** New development shall be required to pay its proportionate share of the costs of infrastructure improvements required to serve the project to the extent permitted by State law. Lack of available public or private services or adequate infrastructure to serve the project which cannot be satisfactorily mitigated shall be grounds for denial of any project or cause for the reduction of size, density, and/or intensity otherwise indicated on the General Plan land use map to the extent allowed by State law.
- **Goal 5.5:** A safe, effective and efficient system for the collection and processing of recyclable and transformable materials and for the disposal of residual solid wastes which cannot otherwise be recycled or transformed.
    - **Objective 5.5.2:** 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.

3.13.3 Significance Criteria

The significance criteria used to evaluate the project impacts are based on Appendix G of the CEQA Guidelines. A significant impact related to utilities and service systems would occur if the proposed project would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Not comply with federal, state, and local management and reduction statues and regulations related to solid waste.

As described in the Initial Study (Appendix A), the proposed project received a "will serve" letter from the Georgetown Divide Public Utilities District and would have sufficient water supplies available. The proposed project would have an on-site septic system and therefore would not require the services of a wastewater treatment provider. The proposed project would comply with existing regulations related to solid waste and would not generate waste that would exceed the capacity of the local landfills. These topics are not discussed further in this EIR.

3.13.4 Project Impacts

Methodology

The building application materials for the proposed project and were reviewed to determine if the project may have a significant impact related to utilities. Potential impacts to public utilities are determined qualitatively by comparing the project to the existing conditions. In determining the level of significance, this analysis assumes that the proposed project would comply with relevant State and local ordinances and regulations, as well as the General Plan policies presented above.

Project Impacts

Impact 3.13-1

The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

As described in Chapter 2, Project Description, the project would connect to the existing water service line on the west side of the property adjacent to State Route 49 and to the existing stormwater collection system in Northside Drive. In addition, the project would connect to existing electric power and telecommunication facilities located along State Route 49. These connections would not require the construction of new facilities, and therefore would not have the potential to cause significant environmental effects.

An existing overhead electrical line owned by PG&E crosses the property from west to east. This line would be relocated, in coordination with PG&E, to avoid the proposed building. The relocation of this line is included in the construction assumptions for the project and is addressed in this EIR. No further impacts would result.

The installation of the proposed septic system is included in the construction assumptions for the project. The septic system if further discussed in Sections 3.6, Geology, and 3.9, Hydrology and Water Quality. Therefore, the environmental impacts related to provision of new or expanded infrastructure would be **less than significant**.

3.13.5 Cumulative Impacts

The cumulative projects identified in Section 3.0 would not require utilities other than electricity (provided by PG&E). The scope of cumulative impacts to utilities is expanded to include includes the service areas of the utility providers serving the project site. The proposed project and future projects within the service areas of the Georgetown PUD, PG&E, and El Dorado Disposal service area could result in increased demand that could require the development of new facilities or expansion of existing facilities, which is a potentially significant cumulative impact. The proposed project would comply with State and local regulations pertaining to energy and water conservation and waste management. The proposed project consists of a 9,100 square foot commercial retail building, which would not require the use of substantial amounts of energy (further described in Section 3.5, Energy) or water. The Georgetown PUD has provided a "will serve" letter indicating that adequate water is available to serve the project. The project would also not produce substantial volumes of waste, and compliance with existing regulations for diversion would minimize the materials sent to local landfills. Consequently, potential of the proposed project would not result in a cumulatively considerable contribution to the potential cumulative impact related to the expansion of existing utility facilities. This impact would be **less than significant**.

3.13.6 Mitigation Measures

No mitigation measures are required.

3.13.7 References

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3.14 Wildfire

This section describes the existing wildfire setting on and near the proposed project site; discusses the relevant federal, State, and regional regulatory considerations; and evaluates the wildfire impacts resulting from construction and operation of the proposed project. This section focuses on the effect of the proposed project on wildfire risk. Fire protection services for the proposed project are addressed in Chapter 3.11, Public Services and Recreation, of this EIR.

In response to circulation of the Notice of Preparation (Appendix B), one comment was received that the risk of wildfire would be increased due to the sale of alcohol at the proposed commercial retail building. While human activity certainly is a factor in wildfire, Cool is already a populated area with alcohol sales at multiple stores adjacent to the proposed project site. Therefore, this section focuses on the physical construction of the proposed development and the existing environment.

3.14.1 Environmental Setting

Local Wildfire Hazard

Fire environments are dynamic systems and are influenced by many types of environmental factors and site characteristics. Fires can occur in any environment where conditions are conducive to ignition and fire movement. The three major components of fire environment are vegetation (fuels), climate, and topography. The state of each of these components and their interactions with each other determines the potential characteristics and behavior of a wildfire. In addition, the type, location, and intensity of a wildfire can affect wildlife, vegetation, air quality, water quality, and slope stability to varying degrees, as discussed below.

It is important to note that wildland fire may transition to urban fire if structures are receptive to ignition. Understanding the fire environment on and adjacent the proposed project site is necessary to understand the potential for fire within and around the project site. The State Board of Forestry identifies those lands where the California Department of Forestry and Fire Protection (CAL FIRE) has the primary duty for wildland fire prevention and suppression; these lands are commonly known as state responsibility areas. CAL FIRE has mapped the fire hazard potential within state responsibility areas based on relevant factors such as fuels, terrain, and weather. The hazards are described according to their potential to cause ignition of buildings. The maps classify land into Fire Hazard Severity Zones of moderate, high, and very high. The maps are based on data and models describing development patterns, estimated fire behavior characteristics over a 30- to 50-year time horizon, and expected burn probabilities, to quantify the likelihood and nature of vegetation fire exposure to new construction. The project site and surrounding areas are mapped as a High Fire Hazard Severity Zone in a state responsibility area (CAL FIRE 2020). The High Fire Hazard Severity designations can be attributed to a variety of factors including highly flammable, dense, drought-adapted chaparral vegetation; seasonal, strong winds; and a Mediterranean climate that results in vegetation drying during the fall months.

The following sections provide more information regarding the fire environment associated with the proposed project and potential environmental effects of wildfire burning on or near the proposed project site.

Vegetation/Fuels

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, grass dominated plant communities become seasonally prone to ignition and produce lower intensity, higher spread rate fires. As described in Chapter 2, Project Description, and 3.3, Biological Resources, the vegetation on the project site consists of annual weeds/grasses, along with small to large trees scattered throughout the project site (See Figure 2-2 and Figure 2-4).

Weather

The climate of region consists of warm, dry summers and cool, wet winters. 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 during the months of November through March (WRCC 2012). During the summer, temperatures often exceed 85 degrees Fahrenheit (°F) coupled with clear sky conditions, which is favorable for the ignition and spread of wildfires.

Topography

The project site is located in the foothills of the Sierra Nevada mountain range. The project site and surrounding areas are gently sloped. Elevations at the project site range from approximately 1525 feet above mean sea level along the western boundary to 1555 feet above mean sea level along the eastern boundary.

Fire History

Fire history data can provide an understanding of fire frequency, fire type, burn severity, significant ignition sources, and other information relevant to understanding the fire and fuels environment in an area. There have been numerous recorded wildfires within the project study area. Fire history data was obtained from CAL FIRE's Fire and Resources Assessment Program (FRAP). FRAP summarizes fire perimeter data dating as far back as the late 1800s, but which is incomplete due to the fact that it includes only fires over 10 acres in size and has incomplete perimeter data, especially for the first half of the 20th century. The FRAP map of fire perimeters from fires that occurred between 1950 and 2018 show that numerous fires occurred within 5 miles of the project site since the 1950s, which indicates that wildfires are also likely to occur in the future (CAL FIRE 2018).

3.14.2 Regulatory Framework

Federal Regulations

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides ("NFPA Documents") are developed through a consensus standards development process approved by the American National Standards Institute (ANSI). This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. NFPA standards are recommended guidelines and

nationally accepted good practices in fire protection but are not law or "codes" unless adopted as such or referenced as such by the California Fire Code or the Local Fire Agency.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995, updated in 2001, and again in 2009, by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgement of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation are founded on the following guiding principles:

- Firefighter and public safety is the first priority in every fire management activity.
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire management plans, programs, and activities support land and resource management plans and their implementation.
- Sound risk management is a foundation for all fire management activities.
- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.
- Fire management plans and activities are based upon the best available science.
- Fire management plans and activities incorporate public health and environmental quality considerations.
- Federal, state, tribal, local, interagency, and international coordination and cooperation are essential.
- Standardization of policies and procedures among federal agencies is an ongoing objective.

National Fire Plan

The National Fire Plan was a presidential directive in 2000 as a response to severe wildland fires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and providing assurance for sufficient firefighting capacity in the future. The plan addresses five key points: Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability. The plan continues to provide invaluable technical, financial, and resource guidance and support for wildland fire management across the United States. The USDA Forest Service and the Department of the Interior are working to successfully implement the key points outlined in the plan (USFS 2019).

International Fire Code

Created by the International Code Council, the International Fire Code addresses a wide array of conditions hazardous to life and property including fire, explosions, and hazardous materials handling or usage (although not a federal regulation, but rather the product of the International Code Council). The International Fire Code places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the International Fire Code uses a hazards classification system to determine the appropriate measures to be incorporated in order to protect life and property (often times these measures include construction standards and specialized equipment). The International Fire Code uses a permit system (based on hazard classification) to ensure that required measures are instituted.

State Regulations

California Building Code

Chapter 7A of the California Building Code (CBC) applies to building materials, systems and/or assemblies used in the exterior design and construction of new buildings located within a fire hazards severity zone or Wildland-Urban Interface Fire Area. The purpose of this chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within state responsibility areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flames or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses. New buildings located in such areas shall comply with the ignition resistant construction standards outlined in Chapter 7A.

California Fire Code

The California Fire Code (CFC) is contained within Title 24, Chapter 9 of the California Code of Regulations (CCR). Based on the International Fire Code, the CFC is created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the CFC and the California Building Code (CBC) use a hazards classification system to determine the appropriate measures to incorporate to protect life and property.

California Public Resources Code

These regulations are discussed in further detail as follows:

- Public Resource Code 4290 requires minimum fire safety standards related to defensible space that are applicable to state responsibility area lands and lands classified and designated as Very High Fire Hazard Severity Zones.
- Public Resource Code 4291 requires a reduction of fire hazards around buildings, requiring 100 feet of vegetation management around all buildings, and is the primary mechanism for conducting fire prevention activities on private property within CAL FIRE jurisdiction.

Fire Hazard Severity Zoning

CAL FIRE mapped Fire Hazard Severity Zones in El Dorado County based on fuel loading, slope, fire weather, and other relevant factors as directed by Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189. Fire Hazard Severity Zones are ranked from moderate to very high and are categorized for fire protection within a federal responsibility area, state responsibility area, or local responsibility area under the jurisdiction of a federal agency, CAL FIRE, or local agency, respectively.

California Department of Forestry and Fire Protection Wildland Fire Management

The Office of the State Fire Marshal and the CAL FIRE administer state policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442).

- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Public Resources Code Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (Public Resources Code Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline fueled internal combustion engines must not be used within 25 feet of any flammable materials (Public Resources Code Section 4431).

Local Regulations

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 combustible material that constitutes a fire hazard which may endanger or damage neighboring property, and describes the means of enforcement. The following provisions are applicable to the proposed project:

Sec. 8.09.070. - Duty to remove and abate hazardous vegetation and combustible material.

A. It shall be the duty of every owner, occupant, and person in control of any parcel of land or interest therein, which is located within the County to remove, or abate, all hazardous vegetation and combustible material, which constitutes a fire hazard and may endanger or damage neighboring property.

B. The owner, lessee or occupant of buildings, grounds, or lots within the County shall remove from such property and adjacent streets all waste, garbage, rubbish, weeds, hazardous vegetation or other combustible materials growing or accumulated thereon in accordance with the procedures and methods prescribed in this chapter and by the Enforcement Official.

D. Any home owners association (HOA), lighting and landscape district, subdivision development, special district, or other entity that has a developed and approved Wildland Fire Safe Plan in accordance with the County's General Plan requirement and CFC Chapter 49, shall be granted a reasonable amount of time to comply with this ordinance not to exceed five years from the date which this ordinance was approved and ratified by the Board of Supervisors (May 30, 2019).

E. Prior to the close of any real estate sales transaction within the County, the requirements for property owners to comply with the Vegetation Management Ordinance shall be disclosed to all potential property owners.

F. All improved parcels, shall comply with the following requirements:

1. Maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line except as provided in Paragraph 11. The amount of fuel modification necessary shall take into account the flammability of the structure as affected by building material, building standards, location, and type of vegetation. Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure. This paragraph does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation.

2. Consistent with fuels management treatment objectives, steps should be taken to minimize erosion. For the purposes of this paragraph, "fuel" means any combustible material, including petroleum-based products and wildland fuels.
3. A greater distance than that required under Paragraph 1 may be required by State law, local ordinance, rule, or regulation. Clearance beyond the property line may only be required if the State law, local ordinance, rule, or regulation includes findings that the clearing is necessary to significantly reduce the risk of transmission of flame or heat sufficient to ignite the structure, and there is no other feasible mitigation measure possible to reduce the risk of ignition or spread of wildfire to the structure.
4. Clearance on adjacent property shall only be conducted following written consent by the adjacent landowner.
5. Remove that portion of a tree that extends within ten feet of the outlet of a chimney or stovepipe.
6. Maintain trees, shrubs, or other plants adjacent to or overhanging a building free of dead or dying wood.
7. Maintain the roof of a structure free of leaves, needles, or other vegetative materials.
8. A person is not required under this section to manage fuels on land if that person does not have the legal right to manage fuels, nor is a person required to enter upon or to alter property that is owned by any other person without the written consent of the owner of the property.
9. Cultivated and useful grasses and pastures shall not be considered a public nuisance. However, if the County's Enforcement Official determines it necessary to protect adjacent improved property from fire exposure, an adequate firebreak may be required.
10. The public and entities should be aware of rare plants areas, riparian areas, and raptor nesting trees on the property and try to avoid these sites.
11. Good neighbor and neighborhood protection policy including unimproved parcels. A 100-foot wide strip of land around structure(s) located on an adjacent improved parcel (some or all of this clearance may be required on the adjacent improved parcel or the adjacent unimproved parcel depending upon the location of the structure on the improved parcel). For example, a structure could be within 70 feet of its property line. The adjacent property owner shall assist its neighbor by completing fuels management on another 30 feet to create a 100-foot strip of treated land.
12. Improved and unimproved parcels adjacent to all roadways that have been designated by the County Enforcement Official (or designee) to be necessary for the safe ingress and egress to the area served by the roadway or fire access easement and the current condition of fuels on the improved or unimproved parcel is assessed by the County Enforcement Official as an extra hazardous fire condition which must be treated or abated.

El Dorado County Local Hazard Mitigation Plan

The El Dorado County Local Hazard Mitigation Plan (El Dorado County 2018) updates the El Dorado County Multi-Hazard Mitigation Plan. The purpose of the plan is to guide hazard mitigation planning to better protect the people and property of the county from the effects of hazard events. The plan serves as a tool to help decision makers direct mitigation activities and resources. It provides risk and vulnerability assessments for potential hazards (i.e., avalanche, dam failure, drought, earthquake, erosion, flood, seiche, severe weather/extreme temperatures, severe weather/thunderstorms, wildfire, and subsidence) and develops mitigation strategies to reduce potential hazards.

El Dorado County General Plan

The following goals, objectives, and policies related to hazards and hazardous materials are established in the Public Health, Safety, and Noise Element of the El Dorado County General Plan (El Dorado County 2019) and are applicable to the project.

- **Goal 6.1:** A coordinated approach to hazard and disaster response planning
  - **Objective 6.1.1:** Fire Hazard Severity Zone 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 6.1.1.1:** The El Dorado County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) shall serve as the implementation program for the coordination hazard planning and disaster response efforts within the County and is incorporated by reference to this Element. The County will ensure that the LHMP is updated on a regular basis to keep pace with the growing population.
- **Goal 6.2:** Minimize fire hazards and risks in both wildland and developed areas.
  - **Objective 6.2.1:** All new development and structures shall meet "defensible space" requirements and adhere to fire code building 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.
  - **Objective 6.2.2:** Regulate development in areas of high and very high fire hazard as designated by the California Department of Forestry and Fire Prevention Fire Hazard Severity Zone Maps.
    - **Policy 6.2.2.1:** Fire Hazard Severity Zone 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 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 Fire Protection District having jurisdiction and/or California Department of Forestry and Fire Protection. (Resolution 124- 2019, August 6, 2019)
  - **Objective 6.2.3:** 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 firefighting 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 6.2.3.4:** All new development and public works projects shall be consistent with applicable State Wildland Fire Standards and other relevant State and federal fire requirements.

- **Objective 6.2.4:** 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 the California Department of Forestry and Fire Protection and local fire protection districts to identify opportunities for fuel breaks in zones of high and very high fire hazard either prior to or as a component of project review.

3.14.3 Significance Criteria

The significance criteria used to evaluate the project impacts are based on Appendix G of the CEQA Guidelines. A significant impact related to wildfire would occur for the proposed project if the project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and the project would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan?
- Due to slope, prevailing winds, and other factors exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities: that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

3.14.4 Project Impacts

Methodology

Map and reports prepared by CAL FIRE and the building application materials for the proposed project were reviewed to determine the proposed project's potential impacts related to wildfire. Potential impacts related to wildfire were determined qualitatively by comparing the project to the existing conditions. In determining the level of significance, this analysis assumes that the proposed project would comply with relevant State and local ordinances and regulations, as well as the general plan policies presented above. Note that, under CEQA, the effects of the existing environment upon a proposed project is not a *project* impact. A project impact occurs when direct or indirect changes to the environment would occur as a result of implementation of the project.

Project Impacts

Impact 3.14-1

The project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

As described under Impact 3.8-4 in Chapter 3.8, Hazards and Hazardous Materials, of this EIR, The development of the proposed retail commercial building (Dollar General) and associated parking lot would not physically interfere with or impair implementation of the El Dorado County Local Hazard Mitigation Plan. The development of the proposed project would not alter roadways in the vicinity of the project site, including State Route 49, and therefore would not interfere with evacuation. The project applicant is responsible for maintaining a travel width of 24 feet

on Northside Drive which would improve two-way traffic circulation on that street. The proposed commercial business would allow for adequate emergency ingress/egress and drive-aisle widths for interior circulation. Therefore, the potential for the proposed project to impair implementation or physically interfere with an adopted emergency response or emergency evacuation plan would be **less than significant**.

Impact 3.14-2

The project would not, 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.

The project site and surrounding areas are mapped as a high fire hazard severity zone in a state responsibility area (CAL FIRE 2020). The proposed commercial retail uses would involve indoor activities, and outdoor activities would be limited to vehicles driving on paved surfaces and people walking on paved surfaces and possibly also on irrigated landscaped areas. The project site has been partially graded for development, so changes in the site topography would be minimal.

The proposed retail commercial building would be constructed of fire-resistant materials, including stucco and concrete block, and would be required to comply with Chapter 7A of the California Building Code (CBC) which specifies the building materials, systems and/or assemblies that must be used in the exterior design and construction of new buildings located within a Fire Hazards Severity Zone. The proposed project would be required to adhere to all fire prevention and protection requirements and regulations including Chapter 8.08 (Fire Prevention) and Chapter 8.09 (Vegetation Management and Defensible Space) of the County Code and the California Fire Code, including requirements for the maintenance of defensible space around the buildings on the property. Compliance with these regulations would reduce the potential of the structures on the project site to catch fire during a wildfire, which in turn would reduce wildfire risk. In addition, as discussed in Section 3.8, Hazards and Hazardous Materials, the transport, storage, and use of hazardous materials, including flammable materials, on the project site would be required to comply with existing State and local regulations including be required to comply with existing hazardous materials regulations including the preparation of an hazardous materials business plan, as enforced by the El Dorado County Department of Environmental Management. This would minimize the potential for the occurrence of a fire due to improper handling of flammable materials. The El Dorado County Fire District has reviewed the proposed project and did not identify significant wildfire hazards particular to this site. The Fire District provided conditions of approval (COAs) regarding fire flow, vegetation and fuel modification, and sprinkler and fire alarm requirements, which are to be incorporated into the permit approvals. Based on the Fire District's review, the implementation of the COAs would provide sufficient fire protection systems, and a separate Fire Safe Plan would not be required (McKay, 2020). Therefore, compliance with local and State requirements related to wildfires would reduce the potential of the proposed project to exacerbate wildfire risks and thereby expose project occupants to wildfire pollutants or the uncontrolled spread of a wildfire to **less than significant**.

Impact 3.14-3

The project would not 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.

The project site would be accessible via a new 40-foot wide driveway connecting to Northside Drive. The project site is currently served by a fire hydrant. The El Dorado County Fire District has reviewed the project and provided conditions of approval (COAs) regarding fire flow, vegetation and fuel modification, and sprinkler and fire alarm

requirements, which are to be incorporated into the permit approvals. The proposed project would not be required include or require the installation or maintenance of any additional infrastructure that could exacerbate fire risks or result in other impacts to the environment. The existing PG&E overhead power line that crosses the project site would be relocated to avoid the proposed building. Therefore, this impact would be **less than significant**.

Impact 3.14-4

The project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

As documented in the Preliminary Geotechnical Interpretive Report (Appendix G), the project site and surrounding areas are gently sloped and not at risk of landslides. As described in Section 3.6, Hydrology and Water Quality, the project is not located within any mapped flood hazard area (FEMA 2008a). The nearest waterway is Knickerbocker Creek, which is located about ¼-mile from the project site (USGS 2018a). At this distance project site is unlikely to experience any risk of flooding from this creek. Project drainage would be directed to an on-site detention pond. Therefore, post-fire slope instability, increased runoff, or drainage changes in areas surrounding the project site would not expose people or structures at the project site to increased risk of flood or landslides. This impact would be **less than significant**.

3.14.5 Cumulative Impacts

The geographic scope for wildfire risks consists of the project site and two cumulative projects in the vicinity (described in Section 3.0). The two nearby cumulative projects consist of a cellular tower located along Cramer Ct, about 2 miles east of the project site, and new signage for an existing 76 gas station located 440 feet southwest of the project site. Similarly to the proposed project, the development of the cumulative projects would not alter roadways or interfere with emergency access, and therefore would not have the cumulative potential to impair an adopted emergency response plan. Both the proposed project and cumulative projects are located in gently sloped areas that are at low risk of landslides. Furthermore, both the proposed project and cumulative projects are not located in flood hazard zones (FEMA 2008a, 2008b). The nearest local water way is Knickerbocker Creek, which is located approximately ¼ mile from both the project site and the cumulative projects, and therefore unlikely to expose the project site and cumulative project sites to any flood hazard (USGS 2018a, 2018b). For these reasons, the cumulative potential to expose people or structure to post-fire flooding or landslide risk would be **less than significant**.

The proposed project and cumulative projects, including any proposed utility connections, are subject to review by the El Dorado County Fire District and must comply with any COAs required by the Fire District. The proposed project and cumulative projects would be required to adhere to all fire prevention and protection regulations including Chapter 8.08 (Fire Prevention) and Chapter 8.09 (Vegetation Management and Defensible Space) of the County Code and with the California Fire Code, including requirements for the maintenance of defensible space around the structures on properties. Compliance with existing regulations would reduce the potential cumulative impact related to the exacerbation of fire risk to **less than significant**.

3.14.6 Mitigation Measures

No mitigation measures are required.

3.14.7 References

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Western Regional Climate Center [WRCC]. 2012. Period of Record Monthly Climate Summary for Represa, California (047370). Accessed November 6, 2020. Available online at: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7370.

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3.15 Urban Decay

Several comments were received in response to the Notice of Preparation (Appendix B) related to "urban decay" or "urban blight" resulting from business failures caused by the proposed project.

According to the California Environmental Quality Act (CEQA) Guidelines (15358 [b]), impacts to be analyzed in an EIR must be "related to physical changes" in the environment. While the CEQA Guidelines (15131 [a]) do not directly require an analysis of a project's social or economic effects because such impacts are not in and of themselves considered significant effects on the environment, the Guidelines also state:

> An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes caused in turn by economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

The CEQA Guidelines also provide that physical effects on the environment related to changes in land use, population, and growth rate induced by a project may be indirect or secondary impacts of the project and should be analyzed in an EIR if the physical effects would be significant (see Guidelines 15358[a][2]).

The State of California Fifth District Court of Appeal ruled that CEQA can require analysis of physical urban decay or deterioration resulting from the development of new shopping centers (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) F044943 (Super. Ct. No. 249669)).[1] The Court also ruled that the cumulative impact analysis for the proposed shopping centers should consider all other past, present, or reasonably foreseeable future retail projects within the project's market area.

For the purposes of this analysis, urban decay is defined as physical deterioration to properties or structures that is so prevalent, substantial, and lasting for a significant period of time that it impairs the proper utilization of the properties and structures, and the health, safety, and welfare of the surrounding community. The manifestations of urban decay include such visible conditions as plywood-boarded doors and windows, uncontrolled truck parking, long term unauthorized use of the properties and parking lots, extensive gang and other graffiti and offensive words painted on buildings, dumping of refuse on site, overturned dumpsters, broken parking barriers, broken glass littering the site, dead trees and shrubbery together with weeds, lack of building maintenance, homeless encampments, and unsightly and dilapidated fencing.

It is important to recognize that, like most CEQA requirements, this standard is focused on impacts to the physical environment and as such it requires the consideration of conditions of disinvestment that could result in the decay of real property as a result of the defined project.[2]

The economic information used in this section is based on the Economic Analysis prepared by ALH Urban & Regional Economics (November 26, 2019), included as Appendix J of this EIR.

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1 In using the term "urban decay," the Appeals Court specifically noted that "urban decay" is distinct from "urban blight," which, per the California Health & Safety Code (Sections 33030 to 33039) definition, is not applicable to this project.

2 These conditions are distinct from conditions of blight which are defined by the California Health and Safety Code (Sections 33030-33039) which instead set the standards for the adoption of redevelopment project areas.

3.15.1 Environmental Setting

Project Market Area

The proposed project site is located 6.5 miles from the nearest shopping node in Auburn and 19 miles from the next nearest competitive node in Placerville. These are the nearest cities with substantial retail bases. The drive time from the project site to the nearest shopping nodes in Auburn and Placerville are 16 and 29 minutes, respectively. In 2017, taxable retail sales in Auburn totaled $601 million. This compared to $387 million in Placerville. Since Cool is an unincorporated area, the State of California does not routinely report taxable retail sales for the community, but taxable retail sales in all of El Dorado County's unincorporated areas in 2017 totaled $1.1 billion. Taxable retail sales in the County's unincorporated areas comprised 46% of all taxable retail sales. Cool is just one of many unincorporated communities in El Dorado County with an existing retail sales base, with other communities including Georgetown, El Dorado Hills, Cameron Park, and Shingle Springs. Thus, many communities contribute to the taxable retail sales reported for the entirety of the County's unincorporated areas.

There are many ways a market area can be defined. This can include by city/cities, Zip Code, census block group or other census geographic designation, radius from a geographic site, or drive-time from a geographic site. For the purpose of the economic analysis, ALH Economics defined a market area for the proposed Dollar General store based on a geography served by four zip codes. This includes the zip code that encompasses Cool (95664) as well as the adjoining zip codes for the communities of Pilot Hill (95664), Lotus (95651) and Greenwood (95635). These El Dorado County communities are all comparatively closer to Cool versus Georgetown or Placerville, and thus their residents are deemed more likely to make convenience purchases in Cool than elsewhere. Alternative market area definition methods were examined, including drive-time, distance radius, and census tract aggregation. However, some methods captured too large an area (distance radius and census tract aggregation) or too small an area (drive-time radius). Hence the zip code method of market area definition seemed most apt for the purpose of this analysis.

ALH Economics obtained demographic estimates for the population base within the aggregated zip code area from Environics Analytics, which is a leader in the United States in providing demographic and economic data, including modeled data. Per Environics Analytics, in 2020 there will be an estimated 7,432 people and 3,054 households within the 4-Zip Code market area. The median household income for these households is about $97,200, with an average of about $115,600. Environics Analytics further projects that El Dorado County's 2020 population will total 191,790. Thus, the Dollar General store's 4-Zip Code market area population comprises a very small portion of the County's population base.

Market Area Retail Demand

ALH Economics maintains a retail demand model that estimates household spending on retail. The model is based upon analysis of taxable statewide retail sales combined with an estimate of household spending on retail by income. The model assumes that households in a market area will make retail expenditures comparable to the pattern of retail sales in the State of California. Among the nine major retail categories tracked by the State of California Board of Equalization, household spending in 2018 was anticipated to be greatest for Food & Beverage sales at 17.2% of all retail spending and lowest for Home Furnishings & Appliances at 5.4% of all retail spending (see Exhibit 1 of the Economic Analysis, Appendix J).

Pursuant to data published by the U.S. Bureau of Labor Statistics, 2017 Consumer Expenditure Survey, households in the income group with annual household incomes between $15,000 to $29,999 and $200,000 and more throughout the United States spent an average of 60% to 17% of household income, respectively, on the type of

retail goods tracked by the State of California Department of Tax and Fee Administration (formerly the Board of Equalization). The income bracket that best matches the proposed Cool Dollar General store market area demographics is the $100,000 to $149,999 bracket, where the average household income is $120,288 and the percent of income spent on retail is 27%. Because the average market area household income is lower than the average within the bracket, and the percent of income spent on retail increases as income declines (see Exhibit 2 of the Economic Analysis, Appendix J), ALH Economics estimates that the market area households will spend on average 28% of income on retail goods pursuant to interpolation of the data findings.

Market area household retail and restaurant demand was estimated based upon this 28% share of income spent on retail and the estimated distribution of retail spending. The results are presented in Table 3.15-1, which indicates total market area retail demand potential of $98.9 million for the 4-Zip code market area. Not all this demand is in categories representative of Dollar General sales. The categories not reflected by Dollar General sales most notably include Motor Vehicles & Parts Dealers, Gasoline Stations, and Food Services & Drinking Places (e.g., restaurants and bars). While there is some overlap with Motor Vehicle Parts, the majority of this category is most likely measuring demand for automobile sales.

Table 3.15-1. Estimated Market Area Demand for Retail Goods and Restaurants

Retail Category	Distribution of Demand	Market Area Demand[1]	
		Per Household	*Total*
Food & Beverage Stores	17.2%	$5,579	$17,038,216
General Merchandizing Stores	11.8%	$3,824	$11,679,245
Motor Vehicles & Parts Dealers	15.6%	$5,055	$15,438,343
Food Services & Drinking Places	14.8%	$4,786	$14,616,789
Gasoline Stations	8.5%	$2,757	$8,419,073
Other Retail Group	12.7%	$4,108	$12,545,728
Clothing & Clothing Accessories	7.2%	$2,337	$7,136,078
Building Materials & Garden Equipment	6.7%	$2,180	$6,656,507
Home Furnishings & Appliances	5.4%	$1,755	$5,361,195
Retail Spending	**100%**	**$32,381**	**$98,891.173**

Source: ALH 2019

[1] The market area comprises a four zip code area encompassing Cool and nearby El Dorado County communities, including Pilot Hill, Lotus, and Greenwood.

Excluding the three categories of Motor Vehicles & Parts dealers, Gasoline Stations, and Food Services & Drinking Places results in a 4-Zip Code market area retail demand estimate of $60.4 million for goods inclusive of the type of merchandise sold by Dollar General. Of note, the Other Retail Group category presented in Table 3.15-1 includes drug stores, health and personal care, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationery and books, office and school supplies, second-hand merchandise, and miscellaneous other retail stores. Many of these types of goods are sold at Dollar General, although not all of them.

Notably, the 4-Zip code market area comprises a primary market area for retailers and restaurants in Cool. However, additional demand is likely to be generated from beyond this area as well, as other area households traverse through the area on their way to or from their home or work locations. In addition, Cool is in an area of the state that attracts tourists and people vacationing nearby. All of these non-market area residents provide additional sources of actual or potential demand for Cool's retail offering.

Existing Competitive Stores and Retail Sales

Because it is in a small unincorporated area, reliable estimates of the retail sales achieved by retail outlets in the Cool market area are not available. The only available government-generated store related data are from the U.S. Census Bureau, Zip Code Business Patterns for the Cool zip code of 95614, which includes information on retail outlets by type and size that include paid employees, excluding government. Thus, owner-operated businesses with no employees are not included. The most recent data available are from 2016. This information includes only 7 retail outlet listings, with the largest comprising a "Supermarket" with 20-49 employees. This most certainly is the Holiday Market, located at the Cool Village Shopping Center. Three other retail outlets were noted as having 5-9 employees. These include outlets classified as "Nursery, Garden Center, and Farm Supply Stores," "Convenience Stores," and "Gasoline Stations with Convenience Stores." In all likelihood, these are the Cool Feed & Ranch Supply, Cool General Store, and 76 Gas Station, respectively. Finally, three outlets are noted as having 1-4 employees. These are classified as "Floor Covering Stores," "Cosmetics, Beauty Supplies, and Perfume," and "Tobacco Stores." ALH Economics is unsure what store might be classified as Floor Covering Store, unless it could be a store no longer present in the market since the Zip Code Business Patterns data are dated, from 2016, or it could be a business located outside the core area in Cool, but the other two stores likely refer to the Cool Village Pharmacy and the Cool Smoke Shop. While these data are of limited use, and do not shed any light on store sales, their levels of employment provide insight into the relative sizes of their enterprises, which indicate that the Holiday Market is the largest retail business in Cool and that the overall retail sector has relatively small employment base.

ALH Economics believes there are several stores in Cool that are likely to be somewhat competitive with Dollar General because of their sale of overlapping sales merchandise. These stores and some of the representative products they sell that overlap with Dollar General are presented in Table 3.15-2, below.

Table 3.15-2. Cool Stores with Merchandise Overlapping with Dollar General

Retail Store	Representative Overlapping Merchandise	Representative Unique Merchandise
Cool Smoke Shop	Bottled drinks, snacks (candy, chips, nuts), batteries, t-shirts, socks, cigarettes	Smoking, tobacco, and vaping supplies
76 Gas Station Convenience Store	Bottled drinks, beer, snacks, candy, motor oil, t-shirts	Ancillary to gas purchases; prepared hot food and sandwiches
Cool Feed & Ranch Supply	Pet food and treats, cat litter, other pet supplies	Specialty pet items, no overlapping brands
Cool Village Pharmacy	Vitamins, first aid supplies, candles, gift cards	Pharmaceuticals (prescription and over the counter), more specialized vitamins, gifts
Cool General Store	Bottled drinks, dairy products, canned goods, cleaning supplies, paper products, BBQ supplies, cereal, snacks, storage bags, first aid supplies	Liquor, more varied beer and wine options
Holiday Market	Frozen foods, dairy products, cereal, canned goods, laundry detergent, snacks, cookies, paper products, storage bags	Full-service grocery store items, including fresh produce and vegetables, deli items, meat, seafood

Source: ALH 2019.

While they sell some overlapping merchandise with Dollar General, all of the stores listed in Table 3.15-2 have a primary merchandise focus that is unique from Dollar General. As a result, this will serve to minimize their potential competitiveness with Dollar General, despite the partial overlap in merchandising. For some stores the merchandise

overlap is minimal, while for other stores the overlap is greater. For example, Dollar General sells cat and dog food, treats, toys, supplies, and cat litter. Cool Feed & Ranch Supply also sells these products. However, Cool Feed & Ranch Supply sells premium brand food and treat products compared to the brands sold by Dollar General, such that there is no overlap in specific consumable product availability. Therefore, it is very unlikely that a Cool Feed & Ranch Supply customer would shop at Dollar General for these consumable products unless by necessity, given the former store's more limited hours of operation (close 6 pm M-F, 5 pm Sat., closed on Sun.). In similar fashion, a store like the Cool Smoke Shop would be unlikely to be highly competitive with Dollar General because its primary focus is to sell smoking supplies, including tobacco and vaping supplies, none of which are available at Dollar General, thus a customer at Cool Smoke Shop would be most likely to purchase the overlapping products as a matter of convenience when at Cool Smoke Shop, ancillary to the primary purpose of their shopping trip. ALH Economics believes the same is the case with purchases at the 76 Gas Station Convenience Store, as the primary reason shoppers are at this store is to purchase gasoline, so purchases at the Convenience store would in almost all likelihood occur at the same time as their gasoline purchase. As with the preceding stores, Cool Village Pharmacy also has a core focus unique from Dollar General, which is pharmaceuticals, especially prescription pharmaceuticals. In conclusion, while these four stores sell some goods common to Dollar General, their relatively low level of competitiveness with Dollar General is unlikely to result in a sales impact that would significantly impair store performance or profitability.

The two other stores included in Table 3.15-2 have a greater number of products for sale that overlap with Dollar General. These stores are the Cool General Store and Holiday Market. Yet, while these stores have a considerable amount of overlapping merchandise with Dollar General, like the preceding four stores they also have unique merchandising orientations relative to Dollar General. These include the Cool General Store, being one of only two purveyors of bottled hard liquor in Cool, with the area's widest variety of hard liquor as well as varied wine and beer options, and the Holiday Market, being a full-service grocery store comprising the only source of fresh fruits, vegetables, meat, seafood, and bakery products in the immediate area of Cool, plus many specialized food products, including gluten free. Nonetheless, these two stores are likely to be most competitive with Dollar General because a high percentage of the products sold at Dollar General (but most certainly not all) can also be found at these stores.

ALH Economics estimates the size of the Cool General Store, based on Google mapping software, to be 1,800 to 2,100 square feet. Valid sales performance figures for this store are not publicly available, so for the sake of analysis ALH Economics assumes a generic sales performance estimate of $400 per square foot.4 This is a generalized figure based on sales per square foot performance for regional, small town/low density grocery store chains reported by Retail Maxim, an industry resource on retail store productivity. This is a proxy selected, in some part, because of its relevancy also to the other competitive store, the Holiday Market, although this store functions much like a liquor store given its unique product mix emphasizing hard liquor, wine, and beer. Pursuant to this sales estimate, and a size in the middle of the range of 1,950 square feet, ALH Economics estimates that Cool General Store annual sales total $780,000. Based upon the preceding retail demand categories in Table 3.15-1, the Cool General Store sales would reflect Food & Beverage store sales, although the store sells other merchandise that crosses into other retail categories, such as auto supplies (Motor Vehicle Parts), first aid (Other Retail), and work gloves (Clothing). Even comparing all of this $780,000 sales estimate to the market area $17.0 million demand in the Food & Beverage stores category indicates that significant additional market area demand remains for other Food & Beverage store sales, especially when one considers that the market area demand in Table 3.15-1 comprises only Cool's primary market area demand, and that additional demand originates seasonally from persons living outside the market area as well as tourism and people vacationing in the area.

ALH Economics estimates the size of the Holiday Market based on mapping software and other visual techniques, to be 25,000 square feet. As with the Cool General Store, sales performance for this store is not publicly available, so the same $400 per square foot generic sales performance rate is assumed, resulting in a $10.0 million annual store sales estimate. This figure comprises a large portion of the $17.1 million of Food & Beverage demand estimated in Table 3.15-1. Yet, even with the addition of the Cool General Store sales, yet additional demand remains, indicating that Food & Beverage sales are leaking out of the Cool market area. These sales are likely leaking to the nearby communities of Auburn and Placerville, that have much more ample retail sectors.

In addition to the Cool market area's Food & Beverage demand that is not being adequately served by the Cool General Store and Holiday Market, it is highly likely that most of the market area's retail demand for other goods comprises leakage to other communities, since there are few shopping opportunities available in the Cool market area. This includes none to very little shopping opportunities available to meet market area shopping needs in other key retail categories such as general merchandise, clothing, home furnishings and appliances, and a range of other retail goods, such as sporting goods, and office supplies.

Environmental Baseline

As noted in Section 3.0, the environmental baseline for the proposed project is 2019-2020. The economic data used in this analysis is from that time period, or the most recent market data available, to reflect current conditions. It us understood that the retail sector has been affected by state and local "stay at home" and social distancing guidance related to COVID-19 since March 2020. While reliable data is not yet available, it is generally understood that overall, retail sales have declined. However, essential services, such as groceries and feed and ranch supplies have remained open, and have performed better than specialty retailers, department stores, and restaurants. As described above, the businesses with similar sales to Dollar General fall into these categories. In addition, recommended travel restrictions may encourage local shopping. The anticipated operational date for the proposed project is no sooner than the last quarter of 2021. It is anticipated that restrictions related to COVID-19 will have substantially eased at that point, and that economic activity would be in recovery. Therefore, a potential change in circumstances due to COVID-19 does not conflict with the environmental conditions described herein, and the impact analysis.

3.15.2 Regulatory Setting

There are no federal or State regulations that would apply to the proposed project.

Local

El Dorado County General Plan

The County General Plan does not contain goals and policies specific to urban decay or blight (El Dorado County 2004). The General Plan has an Economic Development Element that contains the following objectives regarding retail development.

- **Objective 10.1.3: Fiscal and Economic Information.** Provide County decision-makers with appropriate tools and a framework to determine the fiscal and economic impacts of industries and new projects.
- **Objective 10.1.5: Business Retention and Expansion.** Assist in the retention and expansion of existing businesses through focused outreach and public and private incentive programs and target new industries which diversify and strengthen our export base.

- **Objective 10.2.5: New Development Fiscal Effects.** Ensure that new development results in a positive fiscal balance for the County.

El Dorado County Code of Ordinances

Title 9 of the County Code includes Code Enforcement, and Article II addresses vacant buildings. Specifically, Article II requires property owners to maintain vacant buildings, including landscaping. The County Code Enforcement Unit may issue correction orders. Failure to correct maintenance violations can result in fines, which increase for multiple violations.

3.15.3 Thresholds of Significance

Urban decay is not addressed in Appendix G of the CEQA Guidelines (the Initial Study Checklist). For the purposes of this EIR, the proposed project would have a significant urban decay impact if it would:

- Create multiple long-term store vacancies or result in the abandonment of multiple buildings within the retail market served by the proposed project, which results in the physical deterioration of properties or structures that impairs the proper utilization of the properties or structures, or the health, safety, and welfare of the surrounding community.

In accordance with CEQA Guidelines, a project's economic impacts on a community are only considered significant if they lead to adverse physical changes in the environment.

3.15.4 Project Impacts

Methodology

As discussed above, an urban decay impact under CEQA traces a chain of effects, whereby an economic effect may result in a physical impact. Therefore, the first part of the analysis is to analyze the economic impact of the proposed project on the existing environment. The discussion below is based on the Economic Analysis prepared for the proposed project (Appendix J).

Based upon the $1.7 million store sales estimate, the proposed Cool Dollar General store will need to capture only a small portion of market area demand to achieve stabilized sales consistent with national Dollar General store performance standards. Across all categories of market area demand, this would be 1.7% of the $98.9 million in the 4-Zip Code market area demand. However, demand for Dollar General merchandise will not originate from all categories of market area demand. Therefore, this capture rate increases to an overall 2.8% of the $60.4 million 4-Zip Code market area demand for all retail excluding demand for Motor Vehicles, Gasoline, and Food Services & Drinking Places (e.g., restaurants). These figures are presented in Table 3.15-3, which also estimates potential market area capture rates in the specific demand categories most likely to correspond with Dollar General's store sales.

Table 3.15-3. Project Cool Market Area Demand Capture Rate Analysis

Retail Category	Dollar General Sales[1]	Market Area Demand	Dollar General Capture Rate
Food & Beverage Stores	$393,262[2]	$17,038,216	2.3%
General Merchandizing Stores	$917,612[2]	$11,679,245	7.9%
Motor Vehicles & Parts Dealers	$0[3]	$15,438,343	0.0%
Food Services & Drinking Places	$0	$14,616,789	0.0%
Gasoline Stations	$0	$8,419,073	0.0%
Other Retail Group	$201,283[4]	$12,545,728	1.6%
Clothing & Clothing Accessories	$79,498	$7,136,078	1.1%
Building Materials & Garden Equipment	$0[3]	$6,656,507	0.0%
Home Furnishings & Appliances	$99,796	$5,361,195	1.9%
Retail Spending	**$1,691,451**	**$98,891.173**	**1.7%**
Total Less Motor Vehicles, Gas, and Restaurants	**$1,691,451**	**$60,416,969**	**2.8%**

Source: ALH 2019

1 See Appendix J for discussion of Dollar General Sales merchandise categories

2 For the sake of analysis, and based upon visual observation, the store's "Consumables" sales are anticipated to be divided between these two categories 30% food/70% general merchandise, as not all consumables are food or beverage-based products.

3 Some sales anticipated in these categories, but they are anticipated to be nominal compared to the other retail categories.

4 Corresponds with the "Seasonal" sales estimate

The market area demand capture rates by retail category for the Dollar General 4-Zip Code market area range from 1.1% in Clothing & Accessories to 7.9% in General Merchandise. These percentage capture rates would drop when taking other factors into account, such as additional resident demand from beyond the 4-Zip Code market area and drive by traffic associated with tourism and vacationing. Notably, there is very little existing competition in or just beyond the market area to obtain some basic household necessities other than food and some sundry items. Therefore, in many of the categories listed, Dollar General will bring a mix of retail merchandise to the store's market area that is not already present. This will enable market area residents to reduce their travel time and the associated transportation costs (both personal and environmental) to obtain basic household necessities. This includes home furnishings and supplies such as towels, shower curtains, area rugs, vases, ironing boards, laundry baskets, and picture frames; electronics such as wall clocks, alarm clocks, and cell phones; and apparel such as baby and toddler clothes, women and men's underwear, and t-shirts.

There will, however, be potential sales merchandise overlap with the market area's two existing stores selling food items – Holiday Market and Cool General Store. The portion of Dollar General sales anticipated to be most competitive with these stores includes $393,262 in Food & Beverage sales. Some of the Dollar General merchandise similar to these existing market area stores includes canned foods, baking goods, soda, first aid supplies, personal care products, cleaning supplies, pet supplies, and cooler items such as milk, cheese, butter, and sandwich meats. The Holiday Market, however, sells many products not represented at Dollar General, such as fresh and frozen meat, fresh and frozen seafood, an ample array of fresh produce, organic produce, gluten free foods, a broader range of items such as pasta and soups, freshly prepared hot foods, an expansive wine selection as well as hard liquor, and a broader range of beer than typically sold at Dollar General. The provision of these more full-service grocery items indicates that market area shoppers will still need to frequent Holiday Market to purchase important weekly food items necessary to prepare healthy meals. This, combined with Holiday Market's seasonal appeal to tourist demand, will help insulate the store from the modest amount of competitive food item sales anticipated at Dollar General. Moreover, as a larger store with an established customer base, Holiday Market will

have the ability to modify its product mix to maximize sales in products not available at Dollar General yet targeted to meet the needs of its loyal customers.

Similar to Holiday Market, Cool General Store sells some mix of products comparable to Dollar General but also products not available at Dollar General, or even Holiday Market, hence Cool General Store's market distinction as more of a liquor store with a convenience orientation. This is reinforced by the prominent placement of the word "Liquor" on the "Cool General Store" sign above the store's doorway. Already, Cool General Store and Holiday Market coexist in the same market, with the Holiday Market having more product overlap with Cool General Store than Dollar General will, since the Holiday Market sells some hard liquor and expanded wine and beer products not available at Dollar General. While Dollar General will duplicate some of the product offerings at both of these stores, it will also expand the offerings available substantially with its general merchandise products and seasonal items.

The retail demand estimates presented in Table 3 indicate many categories of retail spending in which there are scant retailers present in the Cool market area. Thus, products representative of some of these other categories can be added to existing inventories to insulate stores against potential sales losses resulting from Dollar General's Food & Beverage sales and maintain their broad market appeal, to both market area residents, residents in other communities beyond market area, and tourists and other persons vacationing in the area.

Lastly, at the same time Dollar General may exert competitive pressures on existing retailers, the store will add to the critical mass of retailing opportunities in Cool. Because of the relative lack of shopping opportunities in Cool, market area consumers are leaving the area to make purchases for goods not available in Cool and the general environs. At these times, consumers are also probably taking advantage of more cost effective grocery shopping opportunities available in these more heavily retailed areas. The presence of Dollar General will therefore help reduce the need for some of these out of community shopping trips, thus retaining more consumer dollars within the market area, which could ultimately increase the sales captured by a range of Cool retailers and restaurants.

Project Impacts

Impact 3.15-1

The project would not create multiple long-term store vacancies or result in the abandonment of multiple buildings within the retail market served by the proposed project, which would result in the physical deterioration of properties or structures that impairs the proper utilization of the properties or structures, or the health, safety, and welfare of the surrounding community.

The Economic Analysis prepared for the proposed project shows that Cool's market area is underserved by retail goods, including food sales. This indicates that the area is a sales leakage community (in other words, potential local sales are lost to businesses outside of the market area). The Dollar General store would enable market area consumers to meet more of their retail shopping needs close to home. Even with absorption of Dollar General sales market area residents will still need to shop for many retail goods in locations with more ample shopping opportunities, especially in Auburn and Placerville, both of which have retailers offering a wide range of retail goods required by market area households, including food shopping, general merchandise shopping, home improvement stores, clothing stores, and others. However, because the Dollar General store will enhance the critical mass of commercial outlets in Cool, existing retailers and restaurants are anticipated to achieve greater visibility, which will result in enhanced market demand. Because of Dollar General's relatively low sales volume, which will be divided among many retail categories, compounded by the market area's limited supply of existing retailers, it seems likely that Dollar General's capture of market area retail demand would not result in existing area stores losing a

significant volume of existing sales through sales diversion. Thus, existing stores are anticipated to be able to coexist with the Dollar General store and thus not incur a risk of significant sales decline or closure.

There is no substantial evidence that the proposed project would result in multiple business closures. In addition, property owners are required to maintain vacant properties in an acceptable condition under the County Code, and the County maintains an active Code Enforcement Unit to enforce these provisions. Therefore, even if one or more businesses were to close, there is no substantial evidence that (1) the vacancies would become long-term, and (2) that any vacant commercial property would be allowed to decay to a point where it had a substantial physical effect on the community (that would result in disinvestment and further urban decay). Therefore, the potential impact of urban decay is **less than significant**.

3.15.5 Cumulative Impacts

Of the two cumulative projects, one is a retail project, the 76 Gas Station. This business is included in the analysis. No other reasonably foreseeable retail projects – meaning an application has been received or environmental review has begun – are currently identified within the vicinity of Cool.

3.15.6 Mitigation Measures

No mitigation measures are required.

3.15.7 References

ALH. 2019. Dollar General Economic Analysis in Cool, Unincorporated El Dorado County, California El Dorado County. November 26, 2019.

2004. El Dorado County General Plan. Adopted July 19, 2004. Available online at: https://www.edcgov.us/Government/planning/pages/adopted_general_plan.aspx

4 Alternatives

The purpose of the alternatives evaluation in an Environmental Impact Report (EIR), as stated in Section 15126.6(c) of the California Environmental Quality Act (CEQA) Guidelines, is to ensure that "[t]he range of potential alternatives to the proposed 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" identified under the proposed project. Pursuant to CEQA Guidelines, Section 15126.6, an analysis of alternatives to the project is presented in this Draft EIR to provide the public and decision makers with a range of possible alternatives to consider. The CEQA Guidelines state that an EIR shall describe a reasonable range of alternatives that would avoid or substantially lessen any significant effects of the project, but need not consider every conceivable alternative. The CEQA Guidelines further state that "the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (CEQA Guidelines, Section 15126.6(b)). Therefore, an EIR must describe a range of reasonable alternatives to the proposed project (or to its location) that could feasibly attain most of the basic objectives of the project.

Alternatives in an EIR must be potentially feasible (CEQA Guidelines, Section 15126.6(a)). The feasibility of an alternative may be determined based on a variety of factors, including, but not limited to, site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and site accessibility and control (CEQA Guidelines, Section 15126.6(f)(1)). Agency decision makers ultimately decide what is "actually feasible." (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal. App. 4th 957, 981 (CNPS).) The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (*Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490, 1506-1509; CNPS, supra, 177 Cal. App. 4th at p. 1001; In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings (2008) 43 Cal.4th 1143, 1165, 1166.) Moreover, "'feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors." (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 410, 417.)

An EIR need not evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project. The alternatives discussion is intended to focus on alternatives to the project or its location that 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.

This chapter identifies the proposed project objectives, describes the project alternatives, and evaluates the comparative effects of the alternatives relative to the proposed project. As required under Section 15126.6(e) of the CEQA Guidelines, the environmentally superior alternative is identified and included at the end of this chapter.

4.1 Project Objectives

In determining what alternatives should be considered in the Draft EIR, the objectives of the project ae considered, since attainment of a majority of the objectives is one of the bases for whether an alternative is considered feasible.

The project objectives are described in Chapter 2, Project Description, and repeated below.

1. Provide locally serving commercial retail uses consistent with the Rural Center land use designation.
2. Provide a high quality building design consistent with County guidance.
3. Minimize the grading of the project site and maintain natural topography to the extent feasible.
4. Provide additional property and sales tax revenue to the County.

4.2 Summary of Significant Environmental Impacts

The project would result in two potentially significant impacts, air quality and biological resources. Alternatives should avoid or substantially reduce one or more of the potential project impacts. Proposed mitigation measures would reduce these impacts to less than significant.

4.3 Alternatives Considered but Dismissed

As described above, State CEQA Guidelines Section 15126.6(c) requires that the range of potential alternatives for the project 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 determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision-maker(s). (See Pub. Resources Code, § 21081(a)(3).) At the time of action on the project, the decision-maker(s) may consider evidence beyond that found in this EIR in addressing such determinations. The decision-maker(s), for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint, and may reject an alternative on that basis provided that the decision-maker(s) adopts 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.

The EIR should also identify any alternatives that were considered by the lead agency but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination. The following alternatives were considered but are not evaluated further in this Draft EIR.

4.3.1 Off-Site Alternative

Alternative sites were not considered for several reasons. The three potentially significant impacts are potential disturbance of nesting special status birds, accidental discovery of tribal cultural resources (TCRs), and potential disturbance of soils containing naturally occurring asbestos (NOA). Mature trees suitable for nesting and NOA are common throughout the community of Cool. Similarly, accidental discovery of TCRs, although unlikely, can occur throughout the County. An off-site alternative would not avoid or reduce these potential impacts (however, feasible mitigation measures would reduce these impacts to a level that is less than significant).

4.3.2 Modified Site Plan

It is common to develop an alternative that modifies the layout of a project in order to avoid or reduce impacts related to construction and/or ongoing operation of project. In the case of the proposed project, the potential for nesting birds exists both on and adjacent to the project site, so moving the commercial building would not necessarily avoid or reduce this impact. Similarly, the potential to disturb NOA or previously unknown TCRs, which is not considered high, but nevertheless could occur on the project site, would not be avoided or reduced by relocating the commercial building.

4.3.3 Alternative Use

Impacts related to certain land uses, such as transportation, noise, and air emissions, may be avoided or reduced by changing the proposed land use (for example, from commercial to residential). This alternative would not avoid or reduce the potentially significant project impacts, would not meet the basic project objectives, and would be inconsistent with the County General Plan which designated the site as general commercial.

4.4 Project Alternatives

This section presents an evaluation of feasible alternatives to the proposed Master Plan. Only one feasible alternative has been identified.

1. No Project Alternative

For the alternative, a brief description is presented, followed by a discussion of the basis for selection of the alternative, the degree to which the alternative would meet project objectives, and the ways in which the alternative would avoid or reduce significant impacts of the project, or cause other new or increased impacts.

Table 4-1 compares the alternative to the project in terms of their ability to reduce or avoid potentially significant impacts.

4.4.1 No Project Alternative

Description

As required by the CEQA Guidelines, an EIR's alternatives analysis must include consideration of the No Project Alternative. The "No Project" analysis discusses the existing conditions as well as what would reasonably be expected to occur in the foreseeable future if the Project was not approved (Cal. Code Regs. tit. 14, § 15126.6 (e)(2) and (3)(A)).

For this analysis, the No Project assumes no construction. The existing zoning and general plan classification allows for the construction of a building up to 62,200 square feet (based on a parcel size of 1.68 acres and an FAR of 0.85). Realistically, due to the topography of the site, and the need for parking and a septic system, a potential building would not greatly exceed the 9,100 square foot building that is proposed. Therefore the "allowable use" version of the No Project Alternative would not provide a useful comparison for decision makers or the public. Instead, the No Project Alternative assumes the site would remain vacant.

Impact Analysis

As no construction would occur, the potential for project activities to impact special status birds, or expose workers or customers to NOA would be avoided.

Relationship to Project Objectives

The No Project Alternative would not achieve any of the project objectives.

4.5 Comparison of Alternatives

Table 4-1 shows the potentially significant environmental effects of the proposed project, prior to implementation of mitigation measures, compared to the potential effects of the project alternatives. If a project alternative would have new or substantially greater impacts than the proposed project, this is also noted in the table.

Project impacts related to air quality, energy, greenhouse gas emissions, land use and planning, population and housing, public services and recreation, and utilities would be less than significant. The project alternatives would not increase these impacts to a potentially significant level, and they are therefore not presented in the table.

Table 4-1. Environmental Comparison of Alternatives

Impact	Proposed Project	No Project Alternative
Air Quality 3.2.3	PS	NI-
Biological Resources 3.3.1	PS	NI-
Cultural Resources 3.4.4	PS	NI-

Notes: LTS Less than Significant; NI No Impact; PS Potentially Significant (prior to mitigation); SU Significant and Unavoidable; + Increased Impact; - Decreased Impact

4.6 Environmentally Superior Alternative

CEQA Guidelines require that an EIR identify the environmental superior alternative (Section 15126.6 (e)(2)). If the environmentally superior alternative is the "No Project" Alternative, the EIR must identify an environmentally superior alternative from among the other alternatives.

The "No Project Alternative" would avoid all significant impacts associated with the proposed project. No other feasible "build" alternative has been identified.

5 Other CEQA Considerations

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the Environmental Impact Report (EIR) must also identify (1) significant environmental effects of the proposed project, (2) significant environmental effects that cannot be avoided if the proposed project is implemented, (3) significant irreversible environmental changes that would result from implementation of the proposed project, (4) growth-inducing impacts of the proposed project, and (5) alternatives to the proposed project (evaluated in Chapter 4, Project Alternatives).

5.1 Significant Environmental Effects

Sections 3.1 through 3.15 of this Draft EIR provide a comprehensive overview of the proposed project's significant environmental effects, including the level of significance both before and after mitigation. These impacts are also identified in the Executive Summary.

5.2 Significant and Unavoidable Environmental Impacts

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed project are discussed in detail in Chapter 3, Environmental Analysis, of this Draft EIR. All potentially significant impacts related to the project can be avoided or substantially reduced through implementation of feasible mitigation measures. There are no significant and unavoidable impacts that would result from the proposed project.

5.3 Significant Irreversible Environmental Changes

Section 15126.2 (d) of the CEQA Guidelines requires a discussion of any significant irreversible environmental change that would be caused by the proposed project. However, Section 15127 limits the discussion of irreversible changes to EIRs prepared in connection with any of the following activities:

a. The adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency;
b. The adoption by a Local Agency Formation Commission of a resolution making determinations; or
c. A project which will be subject to the requirement for preparing an environmental impact statement pursuant to the requirements of the National Environmental Policy Act of 1969

The proposed project does not involve any of the activities described in Section 15127. Therefore, no further discussion of significant irreversible environmental changes is provided.

5.4 Growth-Inducing Impacts

As required by Section 15126.2(e) of the CEQA Guidelines, an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also, the EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, the stimulation of economic activity within the region, or the establishment of policies or other precedents that directly or indirectly encourage additional growth. Under CEQA, this growth is not to be considered necessarily detrimental, beneficial, or of significant consequence. Induced growth would be considered a significant impact if it can be demonstrated that the potential growth, directly or indirectly, significantly affects the environment.

These circumstances are further described below.

- **Elimination of Obstacles to Growth:** This refers to the extent to which a proposed project removes infrastructure limitations or provides infrastructure capacity or removes regulatory constraints that could result in growth unforeseen at the time of project approval.
- **Economic Effects:** This refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic effects can include such effects as the "multiplier effect." A "multiplier" is an economic term used to describe interrelationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect acknowledges that the on-site employment and population growth of each project is not the complete picture of growth caused by the project.

Elimination of Obstacles to Growth

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect, though not necessarily a significant one. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines into areas that are not currently provided with these services would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

The proposed project is located in the community of Cool in a small commercial district where some utilities (water and storm drain) are available. The Georgetown Divide Public Utility District provides water service to the area and the project would connect to the existing water infrastructure located on the west side of the property. The site is not served by a wastewater system; therefore, the project would install an on-site septic system. The project would connect to the existing stormwater collection system and would include an on-site drainage retention area. Existing development or areas planned for development are located to the north, south, east and west of the project site; therefore, the project would not encourage future growth in these areas. Undeveloped parcels are located to the south and east of the project site, which are designated for future commercial uses and could feasibly be developed in the future. The proposed project would not eliminate any constraints that are currently obstacles to growth in this portion of the County, such as access to infrastructure including roads and water supply.

Economic Effects

The proposed project would affect the local economy through construction of a new commercial use that would encourage people who live in Cool or in the surrounding County to not have to drive to take purchase goods and supplies.

Additional local employment can be generated through the multiplier effect, as discussed previously in this chapter. The multiplier effect tends to be greater in regions with larger, diverse economies due to a decrease in the requirement to import goods and services from outside the region.

Two different types of additional employment are tracked through the multiplier effect. *Indirect* employment includes those additional jobs that are generated through the expenditure patterns of direct employment associated with the project. Indirect jobs tend to be in relatively close proximity to the places of employment and residence.

The multiplier effect also calculates *induced* employment. Induced employment follows the economic effect beyond the expenditures of the residents within the project area to include jobs created by the stream of goods and services necessary to support residences that reside locally. When a manufacturer buys or sells products, the employment associated with those inputs or outputs are considered *induced* employment.

For example, when an employee of the project goes out to lunch, the person who serves the employee lunch holds a job that is *indirectly* related to the proposed project. When the server then goes out and spends money in the economy, the jobs generated by this third-tier effect are considered *induced* employment.

The multiplier effect also considers the secondary effect of employee expenditures. Thus, it includes the economic effect of the dollars spent by those employees and residents who support the employees of the project.

The project would employ three employees per shift, in two shifts. Accounting for part-time staff, the project could account for six to ten employees. This would be the direct employment of the project. Indirect and induced employment would be minimal, as the project could be served by existing services and suppliers. It is anticipated that employees will be drawn from the local area. Thus, as described in the Initial Study, Appendix A of this EIR, the growth inducement impacts on population and housing would not be significant.

The proposed project is a retail use that would generate additional sales in the community. While additional economic activity may generally be seen as positive, the potential adverse physical effects of economic change are discussed in Section 3.15, Urban Decay.

5.5 Cumulative Impacts

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. This assessment involves examining project-related effects on the environment in the context of similar effects that have been caused by past or existing projects, and the anticipated effects of future projects. As indicated in the CEQA Guidelines, the discussion of cumulative impacts need not provide the same level of detail as project-related impacts. The discussion should be guided by "standards of practicality and reasonableness" (CEQA Guidelines, Section 15130(b)). Although project-related impacts can be individually minor, the cumulative effects of these impacts, in combination with the impacts of other projects, could be significant under CEQA and must be addressed (Section 15130(a)). Where a lead agency concludes that the cumulative effects of a project, taken together with the impacts of other closely related past, present, and reasonably foreseeable probable future projects are significant, the lead agency then must determine whether the project's incremental contribution to such significant cumulative impact is "cumulatively considerable" (and thus significant in and of itself).

Each technical section included in Chapter 3 provides an evaluation of the project's contribution to any significant cumulative impact.

Cumulative Context

To ensure an adequate discussion of cumulative impacts is included in an EIR, CEQA allows the lead agency to use either a list of past, present, and probable future projects (including those projects outside of the control of the lead

agency), or projections included in an adopted local, regional, or statewide plan like a general plan (CEQA Guidelines, Section 15130(b)(1)). The general cumulative impact context for evaluating cumulative impacts for the technical issue areas evaluated in Chapter 3 of this Draft EIR uses the list method. All recently approved and pending projects in the Cool planning area were reviewed. The following two projects were identified: Design Review Permit for new signage for 76 gas station (DR-R19-0003) and Conditional Use Permit for a proposed cell tower (S17-0019).

The cumulative analysis in each of the technical sections evaluates the proposed project's contribution to the cumulative scenario. The technical sections in Chapter 3 evaluate the project's cumulative impacts at the end of the impacts analysis including a description of the cumulative context for each issue area evaluated.

5.6 Other Considerations

The Initial Study prepared for the project (Appendix A) analyzes the environmental impacts of the proposed project and concludes that due to certain aspects of the project, project characteristics, or existing regulatory requirements, the project is not anticipated to have significant impacts on the following resources: agriculture and forestry resources, mineral resources, noise and population and housing. The following analysis provides an overview that explains why the project would not adversely affect these resources and therefore these resources or topics are not further analyzed in this Draft EIR. The Initial Study prepared for the project includes more information that addresses these issue areas and is included in Appendix A.

Agriculture and Forest Resources

The California Department of Conservation Important Farmland Map and the El Dorado County Important Farmland map classifies the project site as Urban and Built-up Land (DOC 2016). The project site is designated for commercial uses and is not located within or adjacent to lands designated with the County's Agricultural (A) General Plan Land Use Overlay. The project site also does not contain and land under a Williamson Act Contract and would not conflict with existing zoning for agricultural use. Lastly, the project site does not support forested areas and is not designated as Timberland Preserve Zone (TPZ) or other forest land according to the County's General Plan and Zoning Ordinance. Therefore, the proposed project would not result in the conversion of farmland to non-agricultural use, affect lands under a Williamson Act contract, or contribute to a loss of forestry resources resulting in no impact, thus this topic is not further addressed in the EIR.

Mineral Resources

The project site is not mapped by the State of California Division of Mines and Geology or the County's General Plan as located within a Mineral Resource Zone (MRZ). The project site does not contain any mineral resources of known local or statewide economic value. Therefore, the proposed project would have no impact to mineral resources and this topic is not further addressed in the EIR.

Noise

Project construction and operation would generate an increase in noise and potential vibration. Construction activities would comply with the County's noise standards for construction outlined in General Plan Policy 6.5.1.11, which sets forth limitations of construction activities allowed from 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 federally recognized holidays. The closest sensitive receptors in the

vicinity of the project include single family residences located east of the project site, the nearest of which is approximately 775 feet from the site. Due to the distance of the nearest receptor, the topography of the project site, and the small size of the proposed structure, operation of the proposed project would not be anticipated to increase the ambient noise levels in the area in excess of the County's established noise thresholds for lands designated for commercial uses in the General Plan. Therefore, the proposed project would result in a less-than-significant impact related to noise and this topic is not further addressed in the EIR.

Population and Housing

The project site is undeveloped and does not contain any residences. The proposed project also does not include the construction of new homes; however, it does include the construction of a retail use that could create a limited number of new construction jobs and less than 10 retail jobs in the region. While the addition of new employment opportunities could increase the County's population, it is anticipated that the majority of construction workers and project employees would likely be existing residents of the County or surrounding areas. As such, the proposed project is unlikely to result in a demand for new housing and no stock would be displaced by the proposed project nor would the project displace any people. Therefore, the proposed project would not impact population or housing in the County and this topic is not further addressed in the EIR.

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6 Preparers

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